



# Global Conference on Education and Research (GLOCER 2017)

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CONFERENCE PROCEEDINGS

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**MAY 22-25, 2017**  
**Sarasota, Florida, USA**

**Co-editors:**  
**Dr. Wayne B. James**  
**Dr. Cihan Cobanoglu**

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May 22, 2017, University of South Florida Sarasota-Manatee, Sarasota, Florida

Welcome, Hoşgeldiniz, Willkommen, Bienvenue, Добро пожаловать, َلاها لهسو, 歡迎光臨, Bienvenido, Καλώς Ορίσαστε, Benvenuto, ようこそ, 환영합니다, ยินดี ต้อนรับ, אבהורב, to the Global Conference on Education and Research (GLOCER) here in sunny Sarasota, Florida, USA. *The Association of North America Higher Education International (ANAHEI)* is very honored and excited to host GLOCER. This is a special time for ANAHEI as it is the first time we are hosting this conference.

GLOCER received more than 250 abstracts/papers for the conference from 400+ authors. One hundred fifty-two of these presentations are accepted to be presented at GLOCER. GLOCER is a truly an interdisciplinary and global conference as we will host 200+ participants from 30+ countries and from different fields of studies. We would like to thank the authors for submitting their research papers to GLOCER.

As GLOCER was a peer-reviewed, double blind conference, the following track chairs worked diligently to ensure that the paper review process was a high quality and smooth:

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We would like to thank University of South Florida Sarasota-Manatee for sponsoring GLOCER. Without their support, this conference would have not been possible. We would like to thank Presenting Sponsors: Bradenton Area Visitors and Conventions Bureau and IMG Golf Club. We also would like to take this opportunity to thank all of the academic and corporate sponsors for making this Conference possible. Also, we would like to extend our gratitude to the paper review committees and our keynote speakers: Dr. Terry Osborn, Dr. Marcie Boucouvalas, and Dr. Roger Brindley.

Moreover, we sincerely express our appreciation to all students in the Conventions and Exhibitions Management class in the College of Hospitality and Tourism Leadership at the University of South Florida Sarasota-Manatee who have volunteered their time to make this Conference a success. We also thank all other volunteers.

While you are attending GLOCER, please do not forget to enjoy the sunny and beautiful Sarasota/Bradenton Areas. The area offers a lot of great attractions and beaches.

Congratulations to all of the presenters at this conference and a warm Florida Welcome!

***Sincerely,***

**Co-chairs,**



**Dr. Wayne B. James**  
Professor, College of Education  
University of South Florida



**Dr. Cihan Cobanoglu, CHTP**  
McKibbon Endowed Chair &  
President of ANAHEI  
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# Growth Mindset and Adult Learners in Higher Education

Faustine Judd

College of Education  
University of South Florida, USA  
faustinej@mail.usf.edu

## Abstract

The purpose for this poster presentation is to show what a growth mindset is, its relation to self-directed learning, explore some of the recent findings on growth mindset and other social-psychological interventions regarding bridging the achievement gap for disadvantaged adult learners, retention and suggest a way to explore the possibility that doing “in-depth, comprehensive training” of teachers in growth mindset strategies to support students in the classroom, in addition to online intervention with students, will intensify the decrease in achievement gap short term as well as increasing retention long term. Offering educators “in depth, comprehensive training with specific application to teaching and learning in the community college” (Auten, 2013, pg. 66) appeared to have had a positive effect on student success and retention during a one term, mindset intervention. Powers (2015) study including both faculty and students in a social-psychological intervention involving growth mindset showed changes in faculty and students. Yeager, et al. (2016) illustrated that a social-psychological intervention could be scaled up on-line and decrease the achievement gap for disadvantaged students. Pauneski (2013) and Pauneski, et al. (2015) show that the scaling up to a nationwide study still indicates a decrease in achievement gap. For the purpose of this poster presentation, adult learners are broadly defined to include college students over high school age, in or out of a formal school, with the primary focus being on college students.

**Keywords:** academic success, adult learner, growth mindset, retention, self-directed learning, achievement gap

## Introduction

According to the May 2016 report from the National Center for Educational Statistics on U.S. 2 year and 4 year colleges with open admissions, based on 150% of expected completion time, 40% do not graduate (Kena, Hussar, McFarland . . . et al, de Brey, 2016). There has been no significant improvement since the May 2013 report. The purpose for this study is to understand what a growth mindset is and how it has been used in education for retention and academic success, specifically with adult learners. For the purposes of this paper, adult learners are broadly defined to include college students over high school age, in or out of a formal school, with the primary focus being on college students.

The starting point is to examine the term “Growth Mindset”, however, just as light cannot be known without knowing dark, growth mindset cannot be discussed without examining a fixed mindset. Someone with a growth mindset has a belief that is based the plasticity of the brain, a belief that the brain can grow with persistence and practice. Mistakes are

to learn from. Challenges are opportunities to learn something new. The goal of every experience is to learn. A fixed mindset is based on the belief that you are born with so much intelligence and talents and you can't do anything about it. You can learn some things, but only to the limit of your innate intelligence. Mistakes prove you are not smart and the primary goal is to look smart.

The response of someone with each of these mindsets is very different for the following five elements: Challenges, mistakes or setbacks, feedback, effort, and success of others.

With a growth mindset one sees challenges as an opportunity to learn something new or something more. Mistakes or setbacks are valued for the insights gained and the learning that allows them to come back and succeed using another route, resource, or procedure. This may be working with someone else, seeking information from someone successful in the field they are working in, or something else that is appropriate to the situation. Feedback is a valuable tool to gain a different perspective on what they are setting out to accomplish, something to learn from. They know that it takes effort to learn and get better in anything. Success of others is seen as inspirational and those that are successful are sought out for collaboration and shared learning.

The ramifications of having a growth mindset appear to be resilience, grit, persistence, social relating and teamwork, giving and receiving peer support. In the face of difficulty there is a willingness to seek out resources in the form of people, electronics, and other sources of information.

In contrast, someone with a fixed mindset avoids challenges so they will not look stupid. Mistakes or setbacks are to be avoided since they are perceived as proof that one is not smart. They may give up if something takes effort since that is also seen as evidence of not being smart and if someone else is successful resentment and a feeling of being threatened are elicited. In whatever area one has a fixed mindset, a person will continue to try to stay in their comfort zone and try to look smart, as opposed to trying something new for the learning experience.

This is not to say that one has a growth or fixed mindset about everything in their life. An individual may have a growth mindset about learning computer skills and pursue learning new skills on a continual basis but a fixed mindset about personal relationships with a "my way or the highway" attitude.

Another perspective on growth mindset is its congruence with Self Directed Learning (SDL), when individuals are learning in a formal education setting. Although it may be a "required" class that is being taken, when learning is done, applying the growth mindset will always demonstrate the definitive elements of SDL. Students are proactive, with help from others or alone, they embrace challenges by taking the initiative to be involved in the process of learning, by creating their own learning goals based on their personal needs or interest, in addition to any the instructor is requiring (Knowles, 1975). They must identify their resources, try out their learning strategies and look at their

outcomes to see if they need to adjust their strategies and/or ask for more assistance or guidance from someone who has expertise in the subject. People who are successful are seen as resources and examples to learn from. Outcomes that do not give the result they desire, mistakes or setbacks, are used as learning opportunities.

Currently there is an online resource for schools, teachers, mentors and students, [mindsetkit.org](http://mindsetkit.org), this site is associated with the Project for Education Research That Scales (PERTS) which indicates on its website that it “helps educators apply evidence-based strategies in order to advance educational excellence and equity on a large scale. We believe that properly scaling educational research can empower schools to reduce inequality and create better experiences for students and teachers.”

### **Literature Review**

Dweck (2006) Gives examples and illustrations of the effect of using growth mindset for learning by both children and adults. Her book defines and explains growth mindset and its effect in sports, business, relationships, education and parenting as well as including results of some of her first mindset workshops with students and accounts of the significant improvement of grades of the students who were in the targeted group.

Dweck’s theories on growth and fixed mindset come from personality theories in the field of social psychology. As she discusses self-theories in a book of essays (2000) she explains that fixed mindset, the belief that one has a fixed amount of intelligence, “the theory of fixed intelligence”, is an “entity theory” of intelligence. This is versus a “theory of malleable intelligence”, growth mindset, which is an “incremental theory” of intelligence (Dweck, 2000 pp 2-3).

Auten (2013) in her dissertation on growth mindset claims, with in-depth training, the community college instructor can foster a growth mindset in the classroom supporting students in being more resilient, in other words, more motivated to learn and work harder while finding difficulties challenging rather than discouraging. They use better, more effective, learning strategies and their academic performance is higher compared to students with a fixed mindset. Yet, there are still problems with a growth mindset not being reinforced or even being undermined in the classroom.

Auten’s (2013) research was a qualitative study that explored how educators in the community college can work to foster a growth mindset and what tools they may need to be equipped with to do so. This study supported the current research showing that adopting a growth mindset promotes retention and academic achievement. There could be further work done to see if training the instructors can be shown quantitatively to improve retention and academic success, specifically for students deemed at risk. Auten’s work included 12 modules used to give in-depth training to the instructors over the course of the semester. The contents of the modules were the high point in this project and seem to cover every aspect of growth mindset. This study did not have clear results concerning the instructors’ responses at the end of the project except to say they had changed their teaching methods after the training and they could see a positive difference in their students. If any quantitative data was collected to compare

grades of students in the intervention classes with the grades of students in the same course, but not in the intervention, it was not included in the data.

Powers (2015) asserts that six brief mindset interventions increased success data influenced both students and teachers as well as transferring growth mindset behavior to other areas than the original classroom. He supports the assertion, that teaching according to the principles of growth mindset with the requisite strategies for using resources and with the goal for any experience to be learning rather than concern with looking smart leads to academic success.

Random selection and assignment of the English 60 course faculty was done for two campuses, Foundation College and Colonial College. The pre-intervention survey was administered to faculty after selection and assignment to either growth mindset group or the control group. The survey showed that all the faculty at Foundation College was very familiar with growth mindset and reported using it in their class, therefore there was no control group assigned for Foundation College. It would have been better to have administered the pre-intervention survey to the population of faculty at Foundation College that were available to participate in an intervention, then choose faculty for the two groups appropriately. Data was collected prior to the intervention, during the intervention and at the end of the intervention. Appendix 1 shows data collection by research question.

Powers (2015) study was both qualitative and quantitative. The intervention course (English 60) completion was 95.73% (112) and success rate was 90.60% (106) (n=117). Contrast that to the Completion result for other English 60 courses on campus that semester which was 85.68% (712) with a success rate of 71.12% (591) (n=831).

Looking at the course completion and success data for the college whose faculty had less familiarity with growth mindset, Colonial College, the following was found as shown in Table 1.

**Table 1: Completion and Success Data**

Category	N	Course Completion		Course Success	
		Number	Percent	Number	Percent
Intervention	117	112	95.73	106	90.60
Campus	831	712	85.68	591	71.12

The difference in percent for course completion and success is significant.

The emphasis in this study was multiple, training the intervention faculty so they could support growth mindset in the students, introducing students to brain plasticity, the foundation of growth mindset, people can change, can grow their brains, intelligent practice, seeing failure as something to learn from rather than a sign of low intelligence, and it is smart to seek help if you have done all you can to solve a problem and still don't understand, you are part of the group, you belong. The ideas expressed were that sometimes you help others, sometimes they can help you.

Powers (2015) data collection was as follows. Prior to the intervention faculty groups were given an open-ended survey about growth mindset. The students of all groups were given a forced choice survey. During the study, faculty met to share reflections on each intervention and participate in focus groups. Students answered open-ended questions in response to each session. After the intervention, all faculty completed the open-ended survey on a computer and the intervention faculty participated in a focus group or, if there was a schedule conflict, an individual interview. The students in the control group received the same forced choice survey while the intervention students received an expanded open-ended survey evaluating the sessions in addition to questions about changes in their behavior and perceptions. Appendix 1 shows Powers data collection by Research question. Quantitative data was collected for retention, success, comparison between groups as well as comparison to historical course outcome measures from campus researchers.

All nine faculty in the intervention group observed positive changes in student behavior and attitudes and emphasized the importance to pairing the mindset concept including brain plasticity with the learning strategies such as conferring with peers, using library resources, the learning center, tutors, computers, experts in the field, as well as other resources and strategies as appropriate.

At the end of Powers (2015) intervention, 80% of all intervention students reported using strategies they had learned for growth mindset in the intervention class, in other classes or at home. Again, his research supports the other current research. Students indicated that when they saw scientifically that they could grow their brain it led to a fundamental shift in thinking about learning. This in turn led to a willingness to try new strategies in the learning process and education in general, transferring those skills and ideas to other classes and areas of life.

Suggestions for future implementation were for a more flexible four-session versus six-session version. Ideally the program would be presented to the instructors early enough for them to integrate the growth mindset practices and concepts into their syllabus. Another suggestion was to integrate discipline specific strategies to increase perceived usefulness of the material.

The techniques used by Powers (2015) and Auten (2013), in contrast to those use by Paunesku (2013), who argues for scaling up social psychology interventions for positive changes in behavior such as academic achievement, are time consuming and are accompanied by logistics issues such as scheduling time for all face to face interventions.

Because of the expense and lack of sufficient generalization, Paunesku (2013) argues for scaling up for social psychology interventions. He uses the ongoing study, Project for Education Research that Scales (PERTS), in his doctoral dissertation as a case study in scaling up. To see information on this continuing study, go to [www.PERTS.net](http://www.PERTS.net).

As results from research need to be applicable to diverse populations in various areas and situations to be of greatest value, Paunesku (2013, p. 30) argues that by scaling up the research, it is more likely that interventions can be adjusted so that motivation for administration of interventions of individuals administering, expertise, and context become less relevant. Another aspect he points out is cost effectiveness of implementation. Although he does not say this specifically, if the interventions are successful, gain in academic achievement is possible, even without requiring training for teachers specifically in growth mindset strategies for their classes. Again, this is not explicitly said, but the only training evident in his description of the PERTS information is voluntary use of [mindsetkit.org](http://mindsetkit.org) to gain more insight for their class instruction. This is in contrast to the work of Powers and Auten.

Paunesku (2013) chose an online delivery, removing location and geographic distance issues, reduced logistic issues and class time for colleges that participated. Training for college personnel was minimal as was class time, since intervention was delivered as online homework. There was also, greater consistency of administration of the intervention by using the computer.

Paunesku (2013, p. 33) asserts that as variability in effect size increases it will be reflected in “expected social benefit.” He insists on the importance of scaling up as he points out that even an effective intervention may statistically show a negative effect if results are taken from a smaller study with weak statistical power. He goes on to say that if one wants to impact policy, the study must be large enough to obtain accurate results that are statistically strong. Another argument for large studies is public perception. The smaller studies may cause an effective intervention to be rejected because of weak statistical information that indicates it is ineffective. In Chapter One, Paunesku (2013) describes how various psychological interventions can affect long-term changes in academic success and the circumstances in which each one “should be effective.” (Paunesku, 2013, p.10)

There have been multiple small scale interventions using brief, 15 minutes to 3.5 hours, psychological interventions that have had a long-term effect in academic achievement and now with PERTS there is the possibility of millions of students participating with a result of higher academic achievement and reduction of the achievement gap found between advantaged and disadvantaged students by up to 40%. Appendix 2 shows results of one such intervention done at University of Texas by Yeager, et al. (2016, pp. E3343-E3345), (Tough 2014). With one 45 minute, online intervention the achievement gap for disadvantaged students was cut in half.

Experiment two in the study by Yeager, et al. (2016), mentioned in the previous paragraph, was completed in the fall semester of 2012 at UT, and done completely online with the entire freshman class, n=7,335. This appears to be one of the precursors of PERTS, the case study Paunesku (2013, 34-48) describes in Chapter 2.2. Yeager’s study (Yeager, et al. 2016) compared the newly enrolled students to those in previous and later cohorts not randomized to condition, n-14,216, showing the decrease in

achievement gap as noted in the previous paragraph. Experiment two used completion of 12 or more credits during the both semesters during the first year as a measure.

The PERTS intervention is ongoing. Appendix 3 depicts of the results for a 45-minute intervention that included n=519 at risk students during the Spring Term of 2012, January to May of 2012 (Paunesku, Walton, Romero, . . . et al Dweck, 2015, p. 7). For the growth mindset portion, students were given material to read that discussed brain plasticity, the ability of the brain to grow making new connections when one works hard using good strategies on things that are challenging. Failures can be temporary and both failures and struggles were emphasized as part of the learning process, opportunities for growth and learning and in no way an indication of lack of intelligence. Two writing exercises were used as reinforcement. These results are part of the ongoing PERTS intervention described in Paunesku's 2013 dissertation.

Chapter four of the dissertation by Paunesku (2013, pp. 68-90) is a scaled-up study of community college students from two colleges, "Increasing Resilience in Community College Math". This study tested to see if two interventions, growth mindset and sense of purpose, relevant to resilience could improve academic success for students enrolled in 29 different math courses. See Appendix 4 for comparison. There were four groups of participants, growth mindset, sense of purpose, mixed, and control. The results were the same for the first three groups, so they were calculated as one group. "The students in the treatment group took 680 math courses and their completion rate was 6.4% higher, this intervention cumulatively led to 44 additional students earning satisfactory grades in math." (Paunesku, 2013, p. 84)

The focus of Paunesku's studies was on the general process of implementing interventions rather than a specific subject.

There is no documentation of instructor training in using growth mindset practices to support growth mindset behavior in students, such as intelligent practice, wise feedback, peer tutors, value affirmation, or grading practices that supports growth mindset. Although most instructors would say they have a growth mindset, they may not have learned how to promote growth mindset in their class and even buy into the idea that some people are limited in "x" type of learning. It is true that some students put in a lot of effort, for example in math, and still get the wrong answer. This may simply be due to the fact that they keep making the same mistakes, following the same steps over and over. Practice does not make perfect, it makes permanent. Some students need to be guided to a different strategy, perhaps have the procedure explained by a peer who has just recently learned how to be successful in that type of problem. Sometimes, when we are an expert, it is easy to miss that small obvious, essential step that we automatically use, when teaching the process to someone else. Although nine out of ten of the students see that "obvious, essential" step, there may be that one student who does not.

If the point is for a student to learn a process, then there could be retest after remediation for either full credit or most of the credit when students do poorly on an

assignment. In many classes the teaching process is set up as though the educational institution and all the instructors are mandated to have a fixed mindset with the goal being for students to look smart by spitting back all the right answers, even if they have not done any deep learning. If the institution and the teacher is to exhibit a growth mindset in which learning is more important than looking smart, then the idea of brain plasticity must be communicated to students and true cooperative learning opportunities must be promoted, not just allowed. These opportunities must lead to learning, not just passing a course.

In the study by Auten (2013), although it has shortcoming, she indicates the instructors found that using the training they had in growth mindset, for the intervention, worked so well in their classes that they were prompted to change some of their teaching processes. Furthermore, they reported transferring some of the growth mindset actions to their personal life including how they worked with their own children.

In contrast to Auten (2013) and Powers (2015), Paunesku, et al. (2015, p43, Fig. 1) apparently in the PERTS the instructors participating in his described interventions are given the “option” of viewing program materials. Those who choose to view the materials must complete a, one time, fifteen-minute survey. This does not specify if the materials instructors see are simply student materials or instructor training materials for growth mindset strategies such as those found on the website [mindsetkit.org](http://mindsetkit.org). Also, not indicated is how or if it will be determined that the instructors viewed all of the growth mindset information, unlike the studies of Auten (2013) and Powers (2015) which had required training, reflections, and discussion during the intervention. Powers (2015, p. 122) makes the point of the benefits of faculty professional education in his statement, “While workshops might give students new insights, the daily classroom environment and faculty attitude can also motivate, or demotivate students.”

Powers (2015) reported that, because of the collaboration and reflection activities for faculty, faculty adopted growth mindset strategies in their classes to motivate students. In other words, faculty changed their instructional practices due to the training they received and their participation in this intervention. Some of the new student practices that faculty reported included explicitly referring to growth mindset in class, including assignments that included reflection and “help-seeking behaviors” while new behavior of faculty included using strategies for grading and feedback based on growth mindset theory. Powers (2015, pp. 124-125) noted that the faculty who participated in the interventions, through reflection and collaboration, implemented new strategies not originally included in the intervention instructions.

A question that could be addressed in the future is, does the “in-depth training of instructors in the theory of growth mindset and how to influence it in the classroom” have a statistical effect size above simply administering an on-line growth mindset intervention to student? If an on-line training for teachers including the opportunity to reflect and collaborate on-line were created and given for in-service credit, what would the cost and benefits of implementation be?

Underlying these questions is the question, does a class taught by and developed by an instructor using growth mindset strategies, create significantly greater academic success for students? These strategies would include grading and feedback that encourages embracing errors for learning, encouragement to ask for help from teachers, peers, mentors and other reliable sources, praise for effort, and exploring other strategies when the first approach to academic work does not bring success. This could also include support for a sense-of-purpose in the classroom work.

## **Methodology**

### **Sample**

Auton (2013) conducted a case study using purposeful criterion sampling.

Powers (2015) used a multiple-methods, experimental design to explore how growth mindset interventions changed faculty practice and student outcome. Faculty participants were assigned randomly to either a growth mindset intervention group or a comparison group. This should have been a purposeful selection to make sure the faculty in the comparison group were not familiar with growth mindset as he had to eliminate the results from the comparison group at Foundation College because of this omission.

Yeager, et al. (2016), used a double blind randomized, online, study to test the effects of an intervention based on social psychology theories of growth mindset and social belonging. Randomization was at the student level.

Paunesku (2013) used case studies of social psychology interventions for academic success scaled up and online.

### **Data Collection**

Auton's data was collected via interviews and recorded in a reflective journal to keep track of impressions, reactions, and interpretations. (Auton, 2013)

Powers (2015) data collection was as follows. Prior to the intervention faculty groups were given an open-ended survey about growth mindset. The students of all groups were given a forced choice survey. During the study, faculty met to share reflections on each intervention and participate in focus groups. Students answered open-ended questions in response to each session. After the intervention, all faculty completed the open-ended survey on a computer and the intervention faculty participated in a focus group or, if there was a schedule conflict, an individual interview. The students in the control group received the same forced choice survey while the intervention students received an expanded open-ended survey evaluating the sessions in addition to questions about changes in their behavior and perceptions. Appendix 1 shows Powers data collection by Research question. Quantitative data was collected for retention, success, comparison between groups as well as comparison to historical course outcome measures from campus researchers.

Yeager, et al. (2016) collected some student data through a pre-intervention random assignment survey on growth mindset and social belonging. Class registration and completion of 12 or more classes was done through the registrar's office.

Paunesku (2013) collected grade data from participating schools at the end of the intervention as well as obtaining data from semesters that there was not an intervention for comparison.

## **Findings**

Growth mindset has significant effect on retention and academic success. Further research needs to be done on the relationship of academic success and retention with instructor in-depth training in fostering growth mindset and its accompanying learning strategies

## **Conclusions**

The studies using psychological interventions show significant improvement in academic achievement when scaled up and put on line for students. A question that could be addressed in the future is, does the "in-depth training of instructors in the theory of growth mindset and how to influence it in the classroom" have a statistical effect size above simply administering an on-line growth mindset intervention to student? If an on-line training for teachers including the opportunity to reflect and collaborate on-line were created and given for in-service credit, what would the cost and benefits of implementation be?

Underlying these questions is the question, does a class taught by and developed by an instructor using growth mindset strategies, create significantly greater academic success for students? These strategies would include grading and feedback that encourages embracing errors for learning, encouragement to ask for help from teachers, peers, mentors and other reliable sources, praise for effort, and exploring other strategies when the first approach to academic work does not bring success. This could also include support for a sense-of-purpose in the classroom work.

- Other questions that could be addressed in on-line interventions are as follows.
- Is there a sense of belonging created as one practices growth mindset in the class and collaborates with peers and to what degree?
- How does the in-depth growth mindset training change the instructor's practice?
- How does the in-depth growth mindset training change the instructor's perception of the students?
- What changes do the instructors notice in their classes over the course of the semester?
- According to student perceptions and student success data, what are the effects of the mindset interventions offered by the trained instructor in class?

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## Appendix 1

*Data Collection by Research Question*

Research Question	Data Collection Method	Time
1. According to student perceptions and student success data, what are the effects of six brief growth mindset interventions on students' mindsets?	A. Intervention Survey	Pre-Post
	B. Resource Use Questions	Post
	C. Open-Ended Reflections	During
	D. Closed-Ended Reflections	During
	E. Course Completion and Course Success	Post
2. In what ways, if any, do students report a transfer of growth mindset practices beyond the intervention course?	A. Open-Ended Reflections	During
	B. Closed-Ended Reflections	During
	C. Intervention Survey	Post
3. How does a series of growth mindset interventions change faculty perceptions about instructional practices?	A. Qualtrix Survey	Pre-Post
	B. Reflection Journals	During
	C. Interviews	During
	D. Focus Groups	Pre-Post
	E. Intervention Mindset Survey	Pre-Post
4. Based on student and faculty feedback, how can we improve the series of growth mindset interventions?	A. Faculty Interviews	During
	B. Faculty Focus Groups	Post
	C. Qualtrix Survey	Post
	D. Student Intervention Survey	Post

Powers (2013, p 40)

## Appendix 2

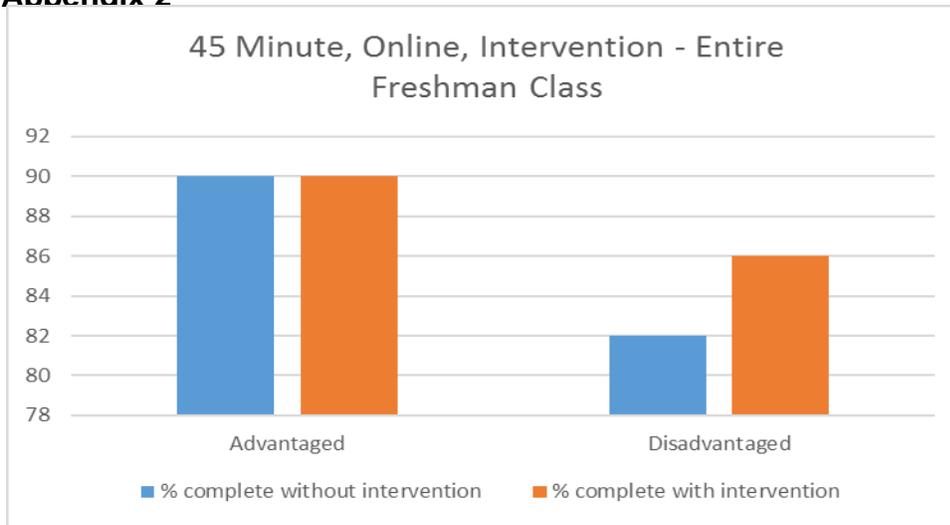


Figure 1: Advantaged vs. Disadvantaged

## Appendix 3

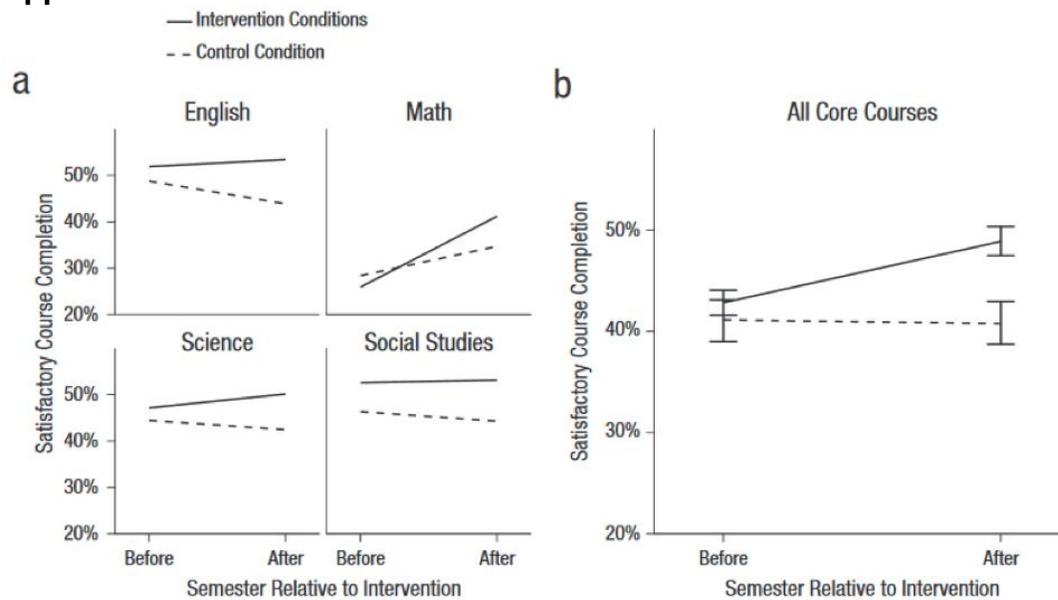


Fig. 2. The effect of the interventions on satisfactory course completion in core courses among students at risk of dropping out of high school. The graphs in (a) show the percentage of students who received satisfactory grades (A, B, C, pass, or credit) in all core courses in the semesters before and after the interventions were conducted. The graph in (b) shows the average percentage of satisfactory course completion across all core courses in the same semesters. The error bars represent  $\pm 1 SE$ .

Paunesku, Walton, Romero, . . . et al Dweck (2015, p. 7)

## Appendix 4

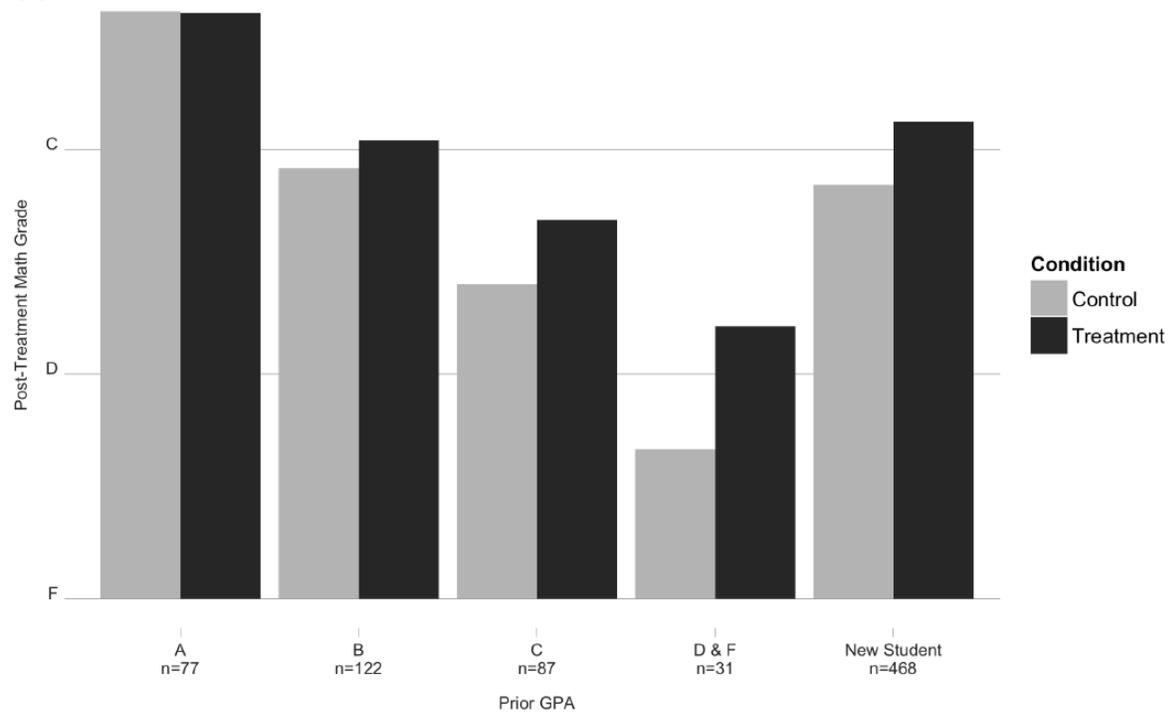


Figure 6: *Effect of treatment by prior GPA.* A mixed effect model revealed that students in the treatment group earned higher grades than control group students.

Paunesku (2013, p. 83)

# Anne Frank as a Case Study to Learn About Human Development

Florian Feucht

The University of Toledo, USA  
Florian.Feucht@UToledo.edu

## **Abstract**

Knowledge on human development entertains theories and research about the physiological, cognitive, and socio-emotional maturation and growth of human beings. In higher education, important objectives of a human development course are that students understand how developmental theories and research can be used intentionally for everyday decision-making of teachers and other human services professionals. The *Anne Frank Assignment*, which is the central focus of this paper, uses the authentic case of a teenage girl to learn to apply human development theory. Students analyze Anne's diary entries from a human development perspective by identifying entries that are data examples of the concepts and theories introduced in their course and textbook. Furthermore, students compare and contrast Anne Frank's case with their own case – their biographical adolescent development and experiences. Much can be learned from human development in Anne Frank and from Anne Frank in human development.

**Keywords:** human development, teacher education, case study, anne frank

# Exploring Present and Future Possibilities in Global Technology Use for Workforce Training in Community College Settings

Alison Diefenderfer<sup>1</sup> and Benjamin Hammel<sup>2</sup>

Northampton Community College, USA

<sup>1</sup>adiefenderfer@northampton.edu

<sup>2</sup>bhammel@northampton.edu

## Abstract

This proposed symposium presentation will showcase efforts of three community colleges within Northeastern Pennsylvania to specifically scale-up technology use in instruction related to workforce training (in diverse fields ranging from phlebotomy to welding) in concert with a federal grant. Although the initial grant work is largely complete (and we will introduce some of the ways we used existing globally available technology in curricular design and decisions at our respective institutions), the symposium's primary focus is a nascent conversation regarding scale-up, and the intentional use of more global technologies moving forward. We contend that engagement in what global technologies are (and can be) will advance conversation circles within global, workforce, and community college education. Our teams want to foster that discourse moving forward and beyond the grant cycle itself, both for sustainability and as advocates for collaborative communities of practice. Presenters can highlight the ways in which global technologies (like synchronous meeting and cloud-based sharing tools) can connect community college faculty and students across institutions. If scaled further, these practices may effectively and essentially occur in global communities of practice as well as in innovative curricular and instructional design situations. This includes creating, authoring, and publically disclosing open educational resources and shared public curricular supports. In closing, we find it prudent to explore expansion of global technology integration both in Pennsylvania and in the larger American community college and higher education landscapes with regards to interdisciplinary and workforce education. After all, these tools and technologies are becoming the global industry and workforce standards or norms, and as such, are critical components for innovation within global, workforce, and community college education.

**Keywords:** workforce education, community college education, global education technologies

# Continuing Professional Development (CPD) and Self-Directed Learning (SDL) in a Digital Age: Implications for Health Professional Adult Learners and CPD Providers

Vernon Curran<sup>1</sup>, Lisa Fleet<sup>2</sup>, Diana Gustafson<sup>3</sup>, Lauren Matthews<sup>4</sup>, Mohamed Ravalia<sup>5</sup>, Karla Simmons<sup>6</sup>, Pam Snow<sup>7</sup> and Lyle Wetsch<sup>8</sup>

Memorial University of Newfoundland, Canada

<sup>1</sup>vcurran@mun.ca

<sup>2</sup>lfleet@mun.ca

<sup>3</sup>Diana.Gustafson@med.mun.ca

<sup>4</sup>laurenmatthews85@gmail.com

<sup>5</sup>ravalia@mun.ca

<sup>6</sup>Karla.Simmons@med.mun.ca

<sup>7</sup>psnow@mun.ca

<sup>8</sup>lwetsch@mun.ca

## Abstract

Self-directed learning (SDL) activities are a recognized type of informal adult learning across many continuing professional development (CPD) systems. Despite this, adult learners report barriers to SDL, including concerns with their access to information (including the Internet) and the ability to use systems effectively to search and locate information relevant to their needs. The latter is particularly important given the increasing use of digital technologies such as the Internet, mobile phones and tablets, and social media. The purpose of our study was to undertake a preliminary exploration of the use of digital, social and mobile technologies (DSMTs) by adult learners as part of their self-directed learning for meeting their CPD needs. A scoping review of the literature and semi-structured interviews with a purposive sample of health professional adult learners were conducted. A large proportion of articles reviewed were commentaries only (45.6%) or focused on satisfaction/reaction outcomes only (49.6%). Key themes identified from the scoping review of the literature included: the use of DSMTs as learning tools; key considerations for use; and benefits/successes of best practices. Interview respondents (N=14) identified a number of triggers and reasons for engaging in SDL, methods and resources for undertaking SDL, and barriers to SDL. There are limited models describing the SDL habits of adult learners in a digital age and there is limited evidence surrounding the use of social media and mobile technologies in mandatory CPD delivery systems. Further, little research has explored the unique contexts of adult learners working in rural and remote areas, their patterns and habits of SDL and the effect of barriers to SDL on professional isolation. While the use of social media and mobile technologies in adult learning is growing, its value in supporting life-long learning is not well understood. The study findings have implications for informing both post-secondary and adult education to improve the SDL skills of adult learners and enhancing CPD systems to better integrate SDL in a digital age.

**Keywords:** adult learning and continuing professional development, self-directed learning, mobile learning and social media

# Principles of Adult Education: Examining Eating Disorders' Effect on Parent/Adolescent Relationships With Strategies for Improvement

Tiffany Karalis

College of Education/ Curriculum and Instruction  
University of Purdue, USA  
tkaralis@purdue.edu

## Abstract

All (well, most) parents/guardians want what's best for their teenagers, but not all of them know how to approach their adolescent or help them combat the biggest teen/adolescent behavior problems that occur so frequently as a result of societal pressures. These problems can affect adolescents for the rest of their lives, and thus the purpose of this 'Principles of Adult Education: Examining Eating Disorders' Effect on Parent/Adolescent Relationships' workshop is to combat these common problems through the use of a multimedia presentation embedded in a discussion-based environment. Workshops provide a way to create an intensive educational experience in a short amount of time, when the time for a more comprehensive effort may not be available (Bobo, 1991). Seeing as this workshop is geared towards adults, participants may be working, they may be too far apart to gather together regularly, or may simply be unwilling to commit large amounts of time. Using the infusion of a multimedia presentation to view on their own time (for those who cannot attend a physical meeting), as well as incorporating said presentation into a workshop setting (for those who can attend), the workshop can introduce new concepts while demonstrating and encouraging practical application. Furthermore, it is a way for adult learners to create a sense of community in the pursuit of meeting common objectives (Bobo, 1991). Three activities were created for the one 'pilot' workshop. The activities incorporate multimodal instructional strategies in order to stimulate the learners' engagement, as well as foster an interpersonal, collaborative, discussion-based climate. Handouts with key information will be provided for participants to utilize in their transfer of knowledge (i.e. practical application of learned strategies), along with formative and summative evaluations for the purpose of determining participants' attitudes and takeaways with regard to the workshop/instructor. These results will determine whether or not future workshops will be organized and hosted. With regard to selecting the workshop approach, University of Washington researchers evaluated about 20 parenting workshops and found five that are especially effective at helping parents and children at all risk levels avoid adolescent behavior problems that affect not only individuals, but entire communities (Haggerty, 2013). "With these programs, you see marked decreases in drug use, eating disorders, reduced aggression, reduced depression and anxiety, and better mental health," said Kevin Haggerty, assistant director of the UW's Social Development Research Group in the School of Social Work (Haggerty, 2013). "You see the impact of when parents get on the same page and work together to provide an environment that promotes wellbeing. You can make long-term impacts" (Haggerty, 2013). The philosophical basis for this project parallels with the philosophical position of Critical Action with an emphasis in Mindful and Timely Intervention. The adults attending this workshop will be parents and/or guardians suffering from a strained relationship

with their adolescents who are struggling with an eating disorder(s). Often times these strained relationships occur as a result of not understanding one another's perspective on a given situation—in this particular situation, parents/guardians not understanding the negative attitudinal and behavioral effects of eating disorder(s) on their adolescents. Critical thinking involves practicing the ability to assess your assumptions, beliefs, and actions (Merriam and Bierema, 2014). Furthermore, the practice of critical thinking skills requires active self-correction and reflexivity, all of which—if performed correctly as outlined in the workshop's content—will bolster an improved relationship between parents/guardians and their adolescents (Merriam and Bierema, 2014). “If you are not able to think critically, you will not be able to defend yourself [against your adolescent's behaviors] or ultimately get the outcomes you desire [from said adolescent(s)]” (Merriam and Bierema, 2014). Effective critical thinking is important to making good decisions throughout life, especially when confronting strained relationships. In accordance, the adults participating in this workshop will learn the practice of critical thinking and application, which they may be able to teach their adolescents and, in turn, present said adolescents with strategies for managing their eating disorders. In accordance with the overarching concept of critical thinking, two additional philosophies serving as the infrastructure for this workshop are the social cognitive and constructivist philosophies. While the social cognitive philosophy states that people learn from observing others in a social setting, the constructivist philosophy states that attaining newfound knowledge is the first step in assigning revised meanings to our original preconceived notions about the social world around us (Merriam and Bierema, 2014). Thus, as the two philosophies overlap, their incorporation will be seen through the skit and role play activities, as well as the group discussions which will offer up diverse perspectives. The primary theory used throughout this workshop is the Transformative Learning Theory, which essentially encompasses critical awareness and the importance of becoming aware of one's own implicit assumptions; furthermore, in turn, it emphasizes the vitality of using that power to unlock the meaning of the world around them (Merriam and Bierema, 2014). While the instructor will take on the role of establishing a trusting, welcoming, and considerate environment for all learners, the learner population is expected to engage in a sharing of experiences while also analyzing the most effective/productive solution to a specific scenario. Through role-play activities, skits, and open discussions, learners will have the opportunity to view a multitude of comparing/contrasting scenarios, all the while dissecting productive approaches in pursuit of a common objective—in this particular case, improving their relationships with their children suffering from eating disorders. Knud Illeris' Three Dimensions of Learning Model, with a contemporary focus on cognition, emotion, and society, serves to improve parents and guardians relationships with their adolescents by channeling all three human processes in unity (Merriam and Bierema, 2014). By presenting a workshop environment for learners that accesses personal, social, and emotional processes, participants will not only be granted the opportunity to reflectively analyze their belief systems and interpersonal relationships with their respective, affected adolescents, but also learn from the experiences and ideas of the participants around them—the learning is as emotional as it is rational. Through this workshop, the model-based objectives for students are comprised of the following: 1) cognition objective: the ability to understand themselves and their adolescents' thought processes, 2) emotion objective: the ability to maintain balance

with personal issues relating to their relationships with their adolescents, and 3) social objective: the ability to bounce ideas off of one another against cultural/social norms and, moreover, reconcile them with strategies for improvement (Merriam and Bierema, 2014). In sum, through incorporating all of the aforementioned approaches, philosophies, theories, and models, participants in this workshop will be guided by the workshop instructor and multimedia presentation to participating in a variety of activities that develop a sense of community in the pursuit of meeting common objectives. Activities will mainly be interactive, including, but not limited to: presenting original as well as assigned skits, engaging in role-play scenarios with diverse workshop participants, and participating in a question/answer discussion with all workshop participants but led/directed by the workshop instructor.

**Keywords:** adult education, adolescent behaviors, critical action

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# Relationship Between Training Methods and Transfer Self-efficacy: Exploring the Moderating Effects of Information Processing Mode

Anna Jui-Chuan Hsu

Department of Technology Application and Human Resource Development,  
National Taiwan Normal University, Taipei, Taiwan, ROC  
annahsu1015@gmail.com

## Abstract

Training is considered as one of the most efficient approaches to continuously improve the capacities and competencies of employees, helping organizations to remain competitive. However, training is sometimes a very costly investment. With limited resources and tight budgets, optimizing the effectiveness and efficiency of training becomes an increasingly important issue in HRM either in private or public sectors.

Many andragogical theorists argue that with a greater volume of experience than the young ones, adult learners tend to apply their experience to the learning process. While the best resources for learning lie with adult learners themselves, the best training method is to tap into their own experiences, such as group discussion, simulation exercises, problem solving activities, case methods, and laboratory methods instead of traditional lecture method (Knowles et al, 2005). Some previous studies also provided empirical evidences to support the andragogical assumption. Gist et al., for instance, proved that trainees in a behavioral modeling training program exhibit better performance in an objective test of software mastery compared with trainees in a tutorial training program (Gist et al., 1989).

However, Callahan et al. indicated that all the lecture, modeling, and active participation method yield significant and positive changes in older learner training performance (Callahan et al., 2003). Likewise, Beers found there was no significant differences in test scores whether the student participated in the course using problem-based learning or lecture (Beers, 2005). Since the empirical findings are conflicting and mixed, the relationship between training method and training outcome in adult training context is still not well understood.

Furthermore, some researchers proposed that different learning style has different training delivery mode preference (Buch & Bartley, 2002; Karns, 2006). Nonetheless, there is little empirical study examining the moderating effects of learning style on the relationship between training methods and training outcomes.

This study measured transfer self-efficacy as training outcome to examine the influence of training methods on transfer self-efficacy in adult training. In addition, it examines the moderating effect of learning style on the relationship between training methods and transfer self-efficacy. 4 hypotheses were proposed in this study:

H1: Compared with trainees in a lecture training program, trainees in behavioral modeling training programs will exhibit higher transfer self-efficacy.

H2: Compared with trainees in a lecture training program, trainees in experiential learning training programs will exhibit higher transfer self-efficacy.

H3: Compared with trainees in a lecture training program, trainees in small group work training programs will exhibit higher transfer self-efficacy.

H4a: The learning style (preference for Information perception mode) will have a moderating effect on the relationship between training method and transfer self-efficacy. Relative to lecture training program, trainees with a higher score in information perception mode will exhibit lower transfer self-efficacy in training programs using behavioral modeling, experiential learning, and small group work.

H4b: The learning style (preference for information processing mode) will have a moderating effect on the relationship between training method and transfer self-efficacy. Relative to traditional lecture, trainees with higher score in information processing mode will exhibit higher transfer self-efficacy in training programs using behavioral modeling, experiential learning, and small group work.

The study was conducted in a training institute for public servants in Taiwan. A total of 259 self-administrated questionnaires was collected from 9 different training programs, with 220 usable responses analyzed in this study.

Measurements of transfer self-efficacy were adopted from the work of Washington (2002). The transfer self-efficacy contains two dimensions: (1) self-efficacy toward maintaining learning and (2) self-efficacy toward generalizing learning. The Cronbach's  $\alpha$  for self-efficacy toward maintaining learning and toward generalizing learning were 0.895 and 0.886, respectively. The Kolb Learning Style Inventory Version 3 was used to measure the preference for learning process of respondents. It is a 12-item self-assessment instrument to evaluate individual preference for information perception and information processing mode.

The hypotheses were tested by using hierarchical regression analysis. The results indicate that the transfer self-efficacy of trainees in training programs using behavior modeling, experiential learning, and small group work is significantly higher than that in training programs using lecture method. H1, H2, and H3 have been supported. However, the interactions between information perception mode and training methods were not significant. Hypothesis 4a is rejected. According to the learning style theory, trainees with a higher score in preference for information perception mode are more likely to prefer abstractness over concreteness, reluctant to learn through action or active participation. However, the study result demonstrated that even trainees, who prefer abstractness over concreteness, exhibit higher transfer self-efficacy in training programs using behavioral modeling, experiential learning, and small group work.

The interactions are significant between information processing mode and behavioral modeling, experiential learning while the interactions between information processing mode and small group work is not as significant as expected. In other words,

Hypothesis 4b is partially supported. According to the previous studies, trainees with higher score in preference for action over reflection tend to actively engage in learning process via practices, stimulations, games and exercise (Buch & Bartley, 2002; Karns, 2006). The high level of engagement consequently leads to better training outcomes, resulting in higher scores of transfer self-efficacy.

This study provides empirical evidence to support the argument that adult learners achieved better training outcome through observation, practice, experience and discussion. These findings are important to HRD professionals in several ways. First, the results suggest that practitioners should pay more attention to training methods while designing training programs. Second, the analytic results of this study indicate that the adult learners achieve better outcomes in training programs using behavioral modeling, experiential learning, and small group work despite of their natural preferences for abstractness over concreteness. On the flip side, trainees with higher score in preference for action over reflection achieve better outcomes only in training programs using behavioral modeling and experiential learning. Therefore, in a lecture-only training program, learning style should be taken into serious consideration.

**Keywords:** training method, transfer self-efficacy, learning style

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# Community Engagement Model for Course and Program Development

Barbara S. Spector<sup>1</sup> and Cyndy Leard<sup>2</sup>

College of Education  
University of South Florida USA  
<sup>1</sup>Spector2@usf.edu

Sustainability Education LLC USA  
<sup>2</sup>CyndyLeard@mac.com

## Abstract

This retrospective case study documents the development of a unique model for community engagement and engaged scholarship in higher education. The primary novel aspect of the model is participatory involvement of both the target audience for the program and representatives of various stakeholder groups in all aspects of program initiation, development, implementation, and evaluation. The model emerged while developing the Informal Science Institutions Environmental Education Graduate Certificate Program (ISI) at the University of South Florida. Also reported are sample benefits accrued to learners in the program, to the ISI community, to the community at large, and to the University.

**Keywords:** community engagement, engaged scholarship, informal science education, professional development, program development

## Introduction

In this era of shrinking budgets for higher education and the call for accountability by the public, it is advantageous for a University to cultivate audiences previously not served in the surrounding community and beyond. Ensuring that the offerings by the University meet the actual and perceived needs of new audiences can be a challenge. Typical procedures for developing new courses and programs may need to be modified. A traditional approach commonly used by University professors to develop new courses is for a single professor to sit at a computer and design the syllabus based on the professor's expert knowledge and stream of logic. The course developed is usually totally teacher-directed. Discussion with other professors in the person's department regarding the need for a specific course may occur. Occasionally, a professor sends a short needs assessment to a sample audience prior to developing the course.

An alternative approach is to involve the community from the target audience for the course in initiating the idea for a course, verifying need, conceptualizing content, implementing a pilot, and conducting evaluation research. This approach is likely to meet authentic needs and engage members of that community in recruitment for the program. This approach contributes to a University fulfilling its commitment to community engagement and engaged scholarship.

A commonly used format for community engagement in higher education is for professors to give students assignments requiring them to use knowledge obtained in a particular course to assist members of a surrounding community to solve a problem

identified by the community. This usually requires students to interact with community members by sharing their expertise individually or in small groups in the community setting. This is often labeled service-learning. There are many definitions of service learning. They all have in common that it is a strategy addressing core curricula objectives while meeting real community needs (Alliance for Service Learning and Education Reform, 1995). Bringle and Hatcher (1996) note that service-learning should also include reflecting on the experience to foster more understanding of course content, a broader appreciation of the discipline, and an increased sense of civic responsibility.

Other mechanisms for community engagement include community service, community outreach, community based participatory research, training and technical assistance, coalition building, capacity building, and economic development. Noticeably missing from this list are formal courses and programs. The model used for course and program development reported herein adds another vehicle to fulfill a University's commitment to community engagement.

In the program reported herein, the Informal Science Institutions Environmental Education Graduate Certificate Program (ISI), the format for community engagement was the creation of four University graduate courses articulated, sequenced, and linked together into a graduate certificate program as a vehicle to solve a problem identified by a segment of the community, the informal science education providers in the Tampa Bay region. Admittedly, this process is extremely time consuming and burdensome for faculty, but it is equally as rewarding.

### **Literature Review**

The relevant literature review for the theoretical framework addresses science education; scholarship of engagement; communities of practice, inquiry, and learning; and learning theory.

### **Science Education**

The relentless rapid pace of change in science and technology drives change in our democratic society and continues to stimulate vehement calls from numerous segments of society for a scientifically and technologically literate population (Glenn Commission, 2000; Epstein & Reagan, 2011). This context has led to the longest-lived reform movement for science education in the United States. It began in 1982 and continues today. The documents guiding the reform are Benchmarks for Science Literacy (AAAS, 1993), the National Science Education Standards (NRC, 1996), and the Next Generation Science Standards (NGSS Lead States, 2013). Among reforms these documents and many succeeding national reports require are systemic reform, use of community resources for teaching school science, and continuous development of teachers from preservice learning in institutions of higher education through inservice learning (professional development) while working in schools (Mundry, Spector, Styles, & Loucks-Horsley, 1999).

The primary voices heard target reform of the K-12 enterprise as the mechanism to achieve scientific and technological literacy for all. It has been, however, documented that much if not most of the science knowledge in our population is derived from learning opportunities outside the formal K-12 enterprise through what is referred to as informal science education (ISE) or “free-choice” education. Schooling is necessary but not sufficient for lifelong science and technology literacy (Falk, Storksdieck, & Dierking, 2007). Thus educators and scientists who provide informal science education opportunities have enormous potential to contribute to the scientific and technological literacy of our society. These professionals work in a multitude of different types of settings with minimal connections and communication among them. The diversity of settings, or sectors, of the ISE field include film and broadcast media, science centers, museums, zoos, aquariums, botanical gardens, nature centers, digital media, gaming, science journalism, community centers, after-school programs, government agencies, research laboratories, and civic organizations. Organizations providing informal science education are often referred to as informal science education institutions (ISEI) or Informal science institutions (ISI). The acronyms ISEI, ISE, and ISI are used interchangeably in this article.

ISI professionals have little opportunity to be educated specifically for their jobs as informal science education providers or for their own professional development once on the job. Given the amount of science learned by the public from informal sources, the need to focus on the quality of informal science education and its integration with K-12 reform is equally as important as K-12 reform to attain the goal of scientific and technological literacy for all.

In spite of the enormous diversity of types of loosely knit organizations providing informal science education in the United States and lack of coherence among them, it is still appropriate to label them a community.

From a sociological perspective, the notion of community refers to a group of people united by at least one common characteristic. Such characteristics could include geography, shared interests, values, experiences, or traditions. John McNight, a sociologist, once said that if one were to go to a sociology department in search of a single, simple definition of the word community, one would “...never leave”. To some people it’s a feeling, to some people it’s relationships, to some people it’s a place, to some people it’s an institution” (CBC, 1994).

All the providers of informal science education share an interest in and value development of scientific and technological literacy for all the American population.

### **Scholarship of Engagement**

The idea that institutions of higher education should fulfill their missions by conducting business in concert with the community outside the Academy was made public by Ernest Boyer, president of the Carnegie Academy for the Advancement of Teaching and Learning, in 1990. He labeled the concept, engaged scholarship. Barker (2004) described Boyer’s concept this way:

The scholarship of engagement, ... consists of (1) research, teaching, integration, and application scholarship that (2) incorporate reciprocal practices of civic engagement into the production of knowledge. It tends to be used inclusively to describe a host of practices cutting across disciplinary boundaries and teaching, research, and outreach functions in which scholars communicate to and work both for and with communities. ... The scholarship of engagement suggests a set of practices that cuts across all aspects of the traditional functions of higher education (p. 124).

Currently, the labels community engagement or community-engaged scholarship are used by many institutions to describe initiatives in which the three traditional dimensions of academia (research, teaching, and service) are integrated to work toward resolving an issue of significance to people in a region around the institution and leading to reciprocal benefit for both the University and the community. The label community-based participatory research is sometimes used expressly for research initiatives in which the focus is specifically on University personnel and community partners generating new knowledge collaboratively.

### **Communities of Practice/Inquiry/ Learning**

Commonalities of these communities include sharing among people for a common purpose, incorporating shared values, and commitment (Furman, 2002). This is not typical of University classrooms in which a professor makes the management decisions about the structure and content in a course (teacher-directed). In a student-directed/centered classroom, the learners and the professor work together to make decisions for structure and content. This is compatible with research on how people learn and consistent with the concept of community engaged scholarship. In student-centered courses (e.g., in the ISI program), learning opportunities are member generated and agreed upon, tested, and require feedback within the group to determine next steps. A development-testing-research cycle is established. In the ideal student-directed classroom, all the participants work on a level playing field, engage in inquiry, and function as a community of practice. The class unit functions as a learning community (Senge, et al. 1994).

The model in this case study emerged from a student-directed program incorporating communities of practice. Experts and novices interact in such communities with experts serving as mentors and facilitators. The instructor is an orchestrator, balancing student generated and instructor-generated topics (Richards, 2010). Trust among community members is essential to engage in the honest, multifaceted dialog needed for success. Dialog includes technical knowledge and skills, open disclosure of problems, supportive advice, consideration of feelings, and valuing each other (Wenger, McDermott, Richard, & Snyder, 2002). Such relationships go through developmental stages and take time (Richards, Bennett, & Shea, 2007). Communication that is honest, caring, other-oriented, and non-judgmental is called interpersonal communication (Beebe, Beebe, & Redmond, 2005).

The program described herein allowed for extended contact over a two-year period and contact beyond the end of the program. During this time participants engaged in the

variety of forms of interpersonal communication as denoted by Beebe, Beebe, and Redmond (2005).

### **Learning Theory**

Participants engaging in interpersonal communication are learning in accord with Novak's theory of education: Empower learners to take charge of their own meaning making from experiences by integrating thinking, feeling, and acting (1999). The emergent model followed Kolb's (1984) experiential learning cycle: This cycle includes: experience, reflection, abstract conceptualization, and action. Concrete experience is first. Reflective observation is second where the learner reviews the experience, understands its value, both cognitively and emotionally, and shares these data with others. Abstract conceptualization to connect the experience with past experiences and knowledge, generalizing features of the experience into lasting concepts and rules is third. Testing the veracity of these new concepts by applying them to new actions and experiences is fourth.

Reflection "slowing down our thinking processes to become more aware of how we form our mental models" (Senge, Kleiner, Roberts, Ross & Smith, 1994, p. 237) throughout the learning cycle, provides necessary processing time for learners to incorporate new knowledge into their existing cognitive frameworks containing many mental models, both short and long term. It follows that changes in short-term everyday mental models accumulating over time will gradually be expressed as changes in long-term, deep-seated beliefs (Senge, et al.1994). Changes in beliefs often bring about changes in behaviors. These changes lead to questioning, collecting more data, and evaluating. Learners become autonomous and increase their self-efficacy. ISI participants increased self-efficacy while testing learnings from the program in their work settings and moving into new roles within their institutions and the developing ISI network.

### **Methodology**

#### **Sample**

The sample consists of materials, published and unpublished, written by participants in the face-to-face 2006-2008 pilot test of the Informal Science Institutions Environmental Education Graduate Certificate Program. Some of the materials were research papers and their original data, while others were items written for use within and among ISI organizations. This study was needed to obtain guidance for development of the pilot test of an online version of the ISI program in 2010.

#### **Data Collection**

Faculty, participants, and stakeholders in the ISI program conducted community-based participatory research. They collected data through participant observation during formal class meetings and out of class meetings; electronic recordings of class sessions and online postings of open-ended reflections; unstructured and open-ended face-to-face focus group and individual interviews; site visits to participants' organizations; and examination of artifacts collected during the face-to-face pilot. They documented what happened during the year leading up to the pilot test, throughout the two years of the

face-to-face pilot test, and the ensuing three years after the program was completed. The studies and their original data were housed in the professor's office archives and available for review.

### **Data Source**

The data source for the community-based participatory research studies examined for the study herein, was the cohort of 15 students with diverse science and education backgrounds. They varied from second-year ISI staff to seasoned ISI executives, and novice and veteran teachers in school settings, along with some scientists who were interested in and involved with outreach programs.

### **Empirical Model**

This is a retrospective emergent design qualitative study. The initial questions were, (a) "How does the emergent model from developing the Informal Science Institutions Environmental Education Graduate Certificate Program illustrate community engagement and engaged scholarship?" and (b) "What were the benefits to stakeholders from developing and pilot testing the Informal Science Institutions Environmental Education Graduate Certificate Program? An inductive process was used to answer the questions. Categories emerged from the analysis of data from each sample and refined iteratively. Categories were triangulated among the samples by the authors working together. Emergent themes led to the development of a model, which was member checked with six participants of the original cohort studied.

### **Findings**

#### **Evolution of this Model for Community Engagement**

The model evolved through iterations developing thirty-one courses initiated by Dr. Spector for science teacher education over 20 years. Each iteration modified the nature and amount of community participation increasing and diversifying aspects to which the community had input. Two series of courses were developed between 2004 and 2008: One series, Community Building in Ocean Sciences I-V, (community-building), consisted of five graduate courses presented sequentially over two years designed to bring scientists and educators together to fulfill the mission of Center for Ocean Sciences Education Excellence-Florida (COSEE-FL).

The second series of courses was an outgrowth of the first set. A stakeholder from the first set of courses, the Executive Director of the Pier Aquarium, discussed needs in his professional community. He indicated educators in informal science education institutions needed professional development. Others in the community-building cohort agreed and embarked on the following steps: Seven area ISI education executives were brought together for a focus group to explore whether they perceived such a need, and if so, what it encompassed. The need for extended learning opportunities in contrast to one day events was voiced. Thus, the idea of having formal courses for professional development of ISI providers emerged. The ISI executives also indicated they could donate in-kind resources, such as use of physical sites, materials, and human expertise to facilitate learning opportunities for such a program. About the same time, the

University began encouraging faculty to develop graduate certificate programs and participate in community engagement. Thus the idea for the Informal Science Institutions Environmental Education Graduate Certificate Program was born.

### **Expanded Community Engagement**

A subgroup from the community-building cohort generated a written survey for public distribution inquiring whether such a certificate program was needed. The survey was distributed at the Florida Marine Science Education Association meeting (formal and informal educators) in March 2006, Ocean's Day 2006 in the state capitol (politicians; government, academia, and private sector scientists and engineers; informal and formal educators K-graduate school; business and industry vendors; and the fishing community), a Summit at the Florida Aquarium on May 19, 2006; and to ISI individuals encountered incidentally.

At the Summit, supported by National Science Foundation (NSF) grant funds to COSEE-FL, the concept for the ISI graduate certificate program was presented. Participants talked about their needs for professional development and provided feedback to the tentative syllabi ideas developed by the group from the community-building courses. Everyone agreed the need for systematic, sustained professional development was endemic in the ISI enterprise. COSEE-FL could fund development of the formal courses and tuition assistance. The Summit's response encouraged the community-building group to go forward with the ISI program and incorporate ideas from the Summit. These questions crystalized to guide the development of courses: (a) What do we need to know and be able to do to establish and sustain a viable network that capitalizes on the unique niches of each organization? (b) What do we need to know and be able to do to create effective learning opportunities and interfaces with each other and with formal education institutions that will facilitate change consistent with the science education reform movement and the National Science Education Standards? University faculty and community members jointly generated answers to these questions and tested them as content in the pilot Informal Science Institutions Environmental Education Graduate Certificate Program.

Concurrently, availability of formal ISI professional development opportunities nationally was explored. Informal science educators were canvassed orally at the 2006 COSEE National Network meeting in Washington, D.C. At a COSEE - CA workshop in Berkeley, Dr. Spector discussed the ISI program ideas with a representative from Oregon State University and a representative from the Lawrence Hall of Science at Berkeley exploring the potential for collaboration. In January 2007, Dr. Spector and the Executive Director of the Pier Aquarium met with the NSF Informal Science Education Division program officers. All present concluded there was a need to specifically prepare people to serve as science educators in informal science education settings. The problem was summarized this way: Currently, most people working in informal science education settings are hired because they have a bachelor's degree in one of the sciences. Typically, the people have no formal training in education and communication of science to varied audiences. They commonly have to learn on-the-job. A few hired may have teaching experience in a K-12 setting and are not trained to

communicate in an informal setting. ISI staff commonly knows very little about the ISE enterprise as a whole, or about management structures within which they function in a particular ISI. As a result, ISIs invest much effort to maximize output from staff. Generally low salaries lead to large staff turnover presenting a constant burden to an institution and a barrier to continuous improvement of delivery of science to multiple audiences. For those individuals who do stay on in an ISI or move among ISIs, there is a need to constantly update their science. Further, the literature base about learning in an ISI is relatively small, thus there is a need to increase the research base. Creating an academic home in one or more universities with formal coursework designed for informal science educators would result in better prepared and more effective science educators working in the multitude of ISI settings and a research program investigating ISI related questions. They may stay in the profession longer in spite of the low pay. Formalizing preparation and certifying individuals to work in ISIs would contribute to this enterprise being viewed as a profession and potentially raise salaries.

The NSF meeting led to discussions with the two leaders in ISI research, John Faulk and Lyn Dierking, who were going to move from Washington, D.C. to Oregon State University, and identification of four other fledgling ISI course initiatives begun in 2006 at the University of Oregon, California State University at Long Beach, University of California at Berkley, and Minnesota State University at Moorhead. Our local community-building cohort reiterated not only was the professional development needed in the Tampa Bay area, but also in other places in the country.

Audience responses to presentations describing experiences in the ISI certificate pilot test at mid point made by pilot test cohort members at the 2007 National Marine Education Association conference in Portland Maine and the 2008 National Science Teachers Association Informal Science Day in Boston again affirmed that the community need was national. Thus the decision was made by the community-building cohort and the participants in the ISI pilot test courses to put the ISI courses through the formal course and graduate certificate approval process in the University and put the program online for distance learning.

In January of 2009, the National Research Council (NRC) released a report titled, Learning Science in Informal Environments: People, Places and Pursuits (Bell et.al., 2009). It documents the condition and needs of the informal science education enterprise. This comprehensive report was the first of its kind and validated the need for the Informal Science Institutions Environmental Graduate Certificate Program and the appropriateness of its contents.

### **Participatory Process**

In this model's unique approach, community members (including those enrolled as students) were equal and active partners in decision-making for all phases of course and program development from initiating the idea, to needs assessment, to conceptualization, to development, to recruitment, to pilot test, to evaluation research, to refinement of the individual courses and the program as a whole, to redesign for

distance learning. This extensive experience with collaborative decision-making helped students grow into capable leaders.

The community-building cohort recruited the students for the pilot test of the face-to-face program, and stakeholders in organizations not a part of the community-building cohort, such as the Vice Presidents for Education at the Florida Aquarium and MOTE Marine Laboratory recruited students. ISI organizations of which students and developers were a part engaged with USF faculty and students in community-based participatory research. They contributed to the research on the impact of the learning in the ISI program by facilitating data gathering, interpretation, publication, and dissemination of case studies and other types of research. Students in the ISI courses engaged additional ISIs in case study research of their organizations. These have been used for publication, and as tools for teaching and enabling ISI providers to learn about each other's strengths, thus contributing insights for networking. Studies of the face-to-face pilot test and its long term impact on participants and their respective organizations culminated in a dissertation (Ball, 2012), which was a formal summative evaluation. Similarly, the pilot test of the online distance-learning cohort enacted from 2010 to 2012 culminated in an evaluation dissertation (Lake, 2017), which confirmed the earlier findings.

### **Description of the ISI Certificate Program**

The Informal Science Institutions Environmental Education Graduate Certificate Program was composed of four three-credit courses: (a) Methods for Interpretive and Transformative Standards-Based Education, (b) Community Resources for Environmental Education, (c) Environmental Site Explorations, and (d) Survey Update of Environmental Research and Management Policies. Designated face-to-face meeting times (180 hours) were augmented by frequent one-to-one meetings with the instructor or small group interactions among student participants. The program was intended to educate ISI providers in ways to enhance their ability (a) to become productive partners in a systemic approach to forwarding STEM education reform, (b) function effectively in ISIs, and (c) develop meaningful, mutually beneficial relationships among ISIs and with formal education institutions. The target audience for this program included ISI educators and other ISI personnel, formal K-12 classroom teachers, University science education professors, and University and corporate scientists and engineers interested in education. This audience possessed a variety of knowledge, skills, and abilities representative of novices and experts.

Originally the course syllabi designed by the community-building stakeholders included information in the following areas: (a) how people learn science, (b) how to interface effectively with science teachers in K-16 schools, and (c) updated scientific research and policy. From this baseline, the content evolved through an iterative process based on the needs and concerns of the participants. The program was learner-driven. Issues, events, and projects with which participants were engaged at work were used as case studies. Other professional experiences, such as attending professional conferences and developing grant proposals were also fodder for learning. Timing and sequencing of learning opportunities were based on learners' expressed need to know. Some face-to-

face classes included on-site experiences in a variety of informal science institutions. These experiences provided first-hand opportunities to construct a holistic view of the informal science education industry, its organization, career paths, management concerns, unique niches, and the nature and relationships among programs and partnerships.

Designing learning opportunities in collaboration with the students (community participants) led to course and program features consistent with communities of practice, learning communities, and communities of inquiry in which the participants developed emotional, intellectual, and practical support systems. The knowledge constructed enabled participants to resolve issues in their own institutions and the ISI community throughout the program. Thus the program itself fostered further community engagement.

The pilot test cohort was aware they were expected to wear two hats during their time in the program: One was as learner, and the other was as program developer for future distance-learning cohorts. The flexible order of the learning opportunities during the pilot test facilitated scaffolding based on learners' prior knowledge, in contrast to the professor's logic. For example, the community-building design group selected Community Resources for Environmental Education as the first course in the sequence. Six weeks into the course, the pilot test cohort determined their discussions would be more fruitful if they first knew the information in the course Methods for Interpretive and Transformative Standards-Based Education. Thus, the seventh week of the first fifteen-week semester we began investigating topics from that course. The professor was able to ensure the concepts identified in the approved University syllabi were addressed by examining data from her own and group reflections, analyses, and abstract conceptualizations of experiences. She used Kolb's experiential learning theory (1984), Novak's (1977) theory of education, the National Science Education Standards (NRC, 1996), and Benchmarks for Science Literacy (AAAS, 1993) as her frame of analysis.

## **Benefits**

This section identifies sample benefits accrued (a) to the participants in the ISI program, (b) to the ISI community, (c) to the community at large, and (d) to the University.

### **Benefits to Participants**

Participants developed knowledge, skills and abilities in several areas that lead to them being more effective and productive ISI providers. Participants continually integrated new information into their cognitive frameworks that help them become more effective network builders within their own organizations, with other ISI providers, and in partnerships with schools and the University. This networking led to increased resource sharing and lessened duplication of services that had previously existed among members of the network.

Participant growth. Participants developed the following:

**(a) A realization that "*I don't know what I don't know!*"** There was more to learn about the industry and learning than the participants ever anticipated.

**(b) Abilities to immediately use information from the program and apply it at work.** For example, a program participant began working with an ISI that facilitated service-learning projects between formal schools and community organizations. The organization's trainer had been using a didactic, reductionist model. The trainer lectured to teachers for four days about science content and how to guide their students through the organization's six-step inquiry and action process. The program participant converted the training sessions to active learning inquiry in which the teachers experienced a process conforming to the 5E's learning cycle (Bybee, 1991). He explicitly used constructivist theory, questioning strategies, and other features of NSES with the teachers. His success led to changing the organization's training model locally and influenced the training model used at sister centers in other parts of the country.

**(c) Skills in networking and coalition building.** Among the skills developed was recognizing the cultural differences among organizations. These included how language is used, context specific vocabulary, understanding organizational structures, missions, needs, motivations, and rewards. Most participants enhanced their human interaction skills, including being sensitized to identifying interaction patterns and relationships. They enhanced their listening skills, and discovered that people interpret things through their own perceptual screens resulting from their life experiences. The program also contributed to a gain in self- efficacy, and development of strategies to improve relationships, expedite collaborative work, and establish organizational partnerships. For example, one participant convened a meeting of 40 people representing 25 informal science providers in her county to establish a communication network beyond that developed in the ISI program and connected this new group with a national network.

**(c) Skills and understandings that led to leadership roles within their institutions and within the enterprise.** As participants developed awareness of the vast diversity of ISI organizations they saw career opportunities and structured new plans. Participants encouraged and supported each other in taking on a variety of leadership positions in state and national professional organizations. Three participants were elected to presidencies, one to a secretary, and four to boards of directors during the program. Seven participants either changed jobs or moved up to a higher position in their own organizations resulting from their employers being aware of their participation in the certificate program.

**(d) Motivation for more education.** The program set the hook for further education in order to answer questions that arose from the program. Three participants were motivated to continue their formal education and enrolled in science education graduate programs and one enrolled in an MBA degree program for nonprofit organizations. The ISI program also set the experiential base and framework for participants to recognize patterns in other courses in the University and understand the content of the other courses.

**(e) Knowledge integration.** Over two years, participants integrated knowledge and made it their own to the point of having difficulty distinguishing what they learned in the certificate and what they just "do" now. This is evidence of knowledge assimilation into

their individual personal idiosyncratic conceptual frameworks and into their professional lives.

### **Benefits to the ISI Community**

Here are samples of the benefits to the ISI community: (a) increased capacity to construct effective initiatives consistent with how people learn and with current scientific research findings, and teacher in-service programs consistent with the National Science Education Standards; (b) creation of a career ladder that lessens the amount of time and investment each ISI makes in new hires; (c) professionalized education role in ISIs, (d) collaborations among ISIs and between ISIs and schools and universities in the community; (e) increased ease of resource sharing and additional funding opportunities, and (f) additions to the research base on ISIs.

### **Benefits to the Community at Large**

This ISI program established an infrastructure in the Tampa Bay Region that enables (a) all teachers in the community to benefit from ISI resources and services to improve the learning of children in schools, in addition to their learning outside of schools, thereby creating a continuum of meaningful learning opportunities for school-age young people in the community; (b) ISI providers to develop ways to interface successfully with teacher education programs and in-service teachers in schools to promote systemic change; and (c) ISI providers to assist teachers in making learning relevant and meaningful to their students.

### **Emergent Model**

The steps in the emergent model follow in Table 1:

**Table 1. Community Engagement Model for Course/Program Development**

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Identify an audience not served by the institution
Engage audience representatives in designing and conducting multiple types of needs assessments with different stakeholder groups
Conduct a focus group of leaders in the target audience
Enable audience leaders to advocate for formal courses to meet the identified needs
Engage potential audience and related stakeholders in initiating draft of course(s)
Present drafts of courses to larger target audience for input
Pilot test courses with a cohort comprised of target audience novices through experts
Work with the cohort to establish a level playing field and create a community of practice
Facilitate cohort participants to function as both learners and course developers
Use participants' current professional experiences as fodder for study
Assist participants in applying their new knowledge to implement change in their organizations
Facilitate participants conducting research on their course experiences, their applications, and on other related organizations
Encourage research products to be presented in professional settings and published
Keep organizational stakeholders involved by using their resources for the cohort of learners throughout, and by informing stakeholders of participants' progress

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### **Benefits to the University**

The results of the research participants conducted as the program progressed benefitted the University in the following ways: (a) by providing data to use to refine the ISI courses, (b) by facilitating incorporation of community resources when teaching

potential and current teachers how to teach, (c) by providing an ISI infrastructure to incorporate in grant proposals requiring ISI partnerships, (d) by allowing publications demonstrating USF's position as a forerunner in an emerging field nationally, (e) by increasing graduate enrollment through engaging an audience this University had not previously served, (f) by providing an alternative procedure incorporating effective methodologies found in social science research for professors to develop courses meeting authentic needs of a new audience, and (g) by establishing a new research context for professors interested in community engagement.

## Conclusion

A model emerged from this case study of the Informal Science Institutions Environmental Education Graduate Certificate Program (ISI program) that provides an alternative approach to course/program development for universities to fulfill their commitment to community engagement and engaged scholarship. The community identified its own problem and engaged University expertise and academic structure as the vehicles to mitigate the problem. Participation of stakeholders as partners on an equal playing field with University faculty in all phases of program development from initiation through refinement for distance learning involved all participants in several mechanisms commonly considered to be community engagement, such as community-based participatory research, training and technical assistance, coalition building, and capacity building. Benefits to stakeholders from developing and pilot testing the ISI Program were documented in four categories: participants in the ISI program, the ISI community, the broader community, and the University. Partnerships and coalitions developed that helped mobilize resources, influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices in the ISI community. Benefits indicated the ISI certificate program was a viable strategy to respond to the needs of a community not previously served by the University. The infrastructure in the community created by the program provided a seamless continuum for meaningful science learning across the K-graduate school science education enterprise and ongoing lifelong learning in settings outside of school.

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# Emotional Intelligence and Adult Learners

Sheena Copus-Stewart<sup>1</sup> and Clarence J. Stewart, IV<sup>2</sup>

College of Educational Foundations, Leadership, and Technology

Auburn University, USA

<sup>1</sup>sheena@auburn.edu

<sup>2</sup>cjs0013@auburn.edu

## Abstract

This presentation will discuss the use of emotional intelligence (EI) to enhance the teaching and learning environment for adult learners in higher education. Several studies have examined the impact of EI on the workplace in areas such as: occupational performance, leadership and organizational productivity (Bharwaney, Bar-On & MacKinlay, 2011; Galley & Heilmann, 2016; Krishnaveni & Deepa, 2011; Kulow, 2012), but fewer studies have examined emotional intelligence and the development in the adult learner (Brookfield, 1995). Boyatzis, Stubbs and Taylor (2002) suggest graduate programs may indirectly foster an environment to exposure of the emotional competencies of emotional intelligence. Graduate programs have many objectives regarding the successful completion and matriculation of students, but one of the primary goals of a program is to create a future generation of competent and successful researchers, scholars and practitioners for the current workforce. It is not surprising to find that Merriam and Bierma (2014) suggested the need for adult educators and practitioners to further investigate the role emotional intelligence may assume in the development of leaders and their remarkable interpersonal skills.

Decades of research and assumptions of common success in work and school environments have long been defined by the intelligence quotient (IQ) and is based on an extensive body of research. However, scholars began to view this narrow perspective of intelligence as an outdated conceptualization. Publication of Salovey and Mayer's (1990) article, *Emotional Intelligence* prompted researchers to take a more critical view of what factors may be contributable to success. While other scholars reevaluated the preeminence once held by IQ as the standard by which to measure success, Goleman (1995) seized the opportunity to expound upon the ideas of his colleagues Mayer and Salovey and publish several best-selling books regarding the concept of emotional intelligence. Recent studies within the field of adult education has challenged that this success may be more attributed to emotional intelligence (i.e. EQ), rather than general intelligence (i.e., IQ) (Buvoltz, Powell, Solan, & Longbotham, 2008; Gardner, 1995; Sternberg & Lubart, 1996). With some studies suggesting that IQ, at best, only accounts for approximately 50% of academic achievement and 20% related to factors of life success (Elias et al., 1997; Goleman, 1995). Emotional intelligence as a construct has many tenets, therefore,

The most basic definition of emotional intelligence can be described as a complex toolkit which includes both interpersonal and intrapersonal skills, which allow individuals to identify, interpret and manage their own emotions, while simultaneously influencing others (Bar-On, 1997; Goleman, 1995; Mayer & Salovey, 1997). For this presentation,

we will focus on the original model developed by Salovey and Mayer (1990) which consisted of four areas of aptitude within the emotional intelligence model. In their model, they highlight four distinct areas of ability regarding emotional intelligence: perceiving, using, understanding and managing emotions. It is important to note here that emotional intelligence in this capacity is a hierarchical progression, with management of emotions being the highest order of functioning, much like Bloom's taxonomy and its progressive levels (Mayer, Salovey, Caruso, & Sitarenios, 2001).

To better understand the definition, it is critical to examine the theoretical underpinnings of emotional intelligence as a psychological theory when first presented by Salovey and Mayer (1990). Individuals with high emotional intelligence are often able to quickly adapt and mobilize, regardless of the stressors or demands of the environment. Thus, these individuals who demonstrate higher emotional intelligence have been found to be more successful in both their professional and personal roles (Sener, Demirel, & Sarlak, 2009). With an increasingly high demand from the job market, industries and corporations alike are looking for, not only the most competent and highly-skilled individuals, but also for those who possess the soft-skills necessary for effectively leading teams (Bharwaney, Bar-On, & MacKinlay, 2007). Therefore, adult educators are tasked with creating an environment, where these skills can be fostered and developed.

There is empirically based evidence for applying emotional intelligence competencies in higher education settings. Several studies have discussed emotional intelligence competencies and the positive correlation and improvement in soft-skills and relational skills such as: leadership, initiative, and self-confidence (Anderson, 2016; Berenson, Boyles & Weaver, 2008; Boyatzis, Stubbs, and Taylor, 2002; Freshwater & Stickley, 2003; Jaeger, 2003).

The research has demonstrated student success is often attributable to teacher involvement in the educational setting and as one study found instructors who were knowledgeable of their own emotions could enable learning retention in their students through self-knowledge (Freshwater & Stickley, 2004). Yet, instructors consistently report high levels of stress, fatigue and burnout, which have been shown to [linked to poor academic achievement] discourage academic learning efforts in the classroom environment. Helping both instructors and adult learners achieve a better work-life balance may be helpful in the teaching and learning process. There are five skill sets within emotional intelligence that can help in developing prosocial and emotional behaviors which are beneficial such as increased motivation, self-control and favorably received by colleagues and teams (Zeidner & Olnick-Shemesh, 2010). These benefits can be directly tied to an increase in academic achievement and the facilitation of teaching and learning in the classroom. To integrate these components in the teaching and learning environments of adult learners, we must first identify the integral components which are the foundational tenets of emotional intelligence. Thus, emotional intelligence defines these abilities as: self-awareness, management of personal emotions, self-motivation, empathy, and social skills.

The research for this presentation has highlighted the limited studies connecting the ability to use emotional intelligence competencies as enhancements in teaching and learning. Other studies which focus on professions where emotions are a critical function of the job (i.e. therapists, counselors, and teachers) would show support and bolster student success. Emotional intelligence in these areas would be vital to balance the various and potentially stressful relationships which may be encountered. Each profession would be better served with graduates who feel empowered with these added relational and soft-skills. Knowledge regarding how these competencies should be implemented and their influence on student outcomes is still relatively untapped. While much of the information shared is a review of emotional intelligence it clearly identifies a gap in the literature that needs to be addressed regarding empirical focus on the role of emotional intelligence in higher education, what that should be and how instructors and practitioners can implement this into current programs and curricula.

**Keywords:** emotional intelligence, adult learner, higher education

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# Experiential Learning Opportunities in the Area of Energy and the Environment

Hamideh Talafian, Tamara Galoyan, Penny L. Hammrich, and Leslie Lamberson

School of Education  
Drexel University, USA  
Hamideh.talafian@gmail.com  
Toma.galoyan@gmail.com  
Plh33@drexel.edu  
les@drexel.edu

## Abstract

This proposal presents research on experiential learning opportunities for undergraduate students in the area of Energy and Environment at Drexel University conducted in part through a National Science Foundation Research Experience for Undergraduates (xREU) grant. Both qualitative and quantitative data have been collected and analyzed to determine the effect on the participants learning outcomes and skills through a summer program that focused on experiential learning.

It is known that science, technology, engineering and mathematics (STEM) education is vital to our nation's interests, and will be an integral part of maintaining the United States' leadership when tackling the impending grand challenges associated with energy and the environment. One means recognized by the National Academy of Sciences to improve the retention of STEM students and advocate learning paths for successful future STEM careers is through experiential learning (Freeman et al., 2014; Thiry, Laursen, & Hunter, 2011). Broadly speaking, experiential learning is the process of generating meaning and gaining knowledge from direct experiences that combine applied and theoretical concepts with real-world implications. Direct experiences can come from hands-on projects and real life learning skills that go beyond core subjects taught in a traditional lecture environment (Gentry, 1990). In this regard, experiential learning can play a pivotal role in addressing one of the most important strategic needs of our nation, both attracting and retaining the best, brightest minds for careers in advancing science and technology.

One significant facet of experiential learning is providing undergraduate research opportunities for relevant global scientific challenges such as the delicate interplay between energy needs and environmental implications (Hunter, Laursen, & Seymour, 2007). Undergraduate research opportunities have long been recognized as an important tool for improving enrollment, learning experience, retention, and graduation rates in STEM fields; and similar benefits have also been shown for under-represented minority groups (Carter, Mandell, & Maton, 2009).

The 2013 Annual Report from the Center for Measuring University

Performance, a federal research expenditure report, qualifies only 171 institutions out of the 659 institutions that receive federal grants as the *Top American Research Universities*; yet these 171 institutions account for over 90% of all reported academic federal research expenditures. This data demonstrates that more than 500 institutions of higher learning may not have the resources to offer essential opportunities for research experiences to their undergraduate students; not to mention experiential learning based opportunities on relevant grand engineering challenges. Consequently, it is imperative for universities identified as the Top American Research Universities, such as Drexel University, to provide high impact summer research experiences for undergraduates who may not be able to gain these experiences at their home academic institutions.

Several metrics were used to determine how the experiential learning program (xREU) can enhance student's performance. A major evaluation focus was placed on learning outcomes and skills gained by participants as a result of their experience over the summer program. The specific research questions guiding the evaluation process are:

- 1) *What are participants' learning outcomes (cognitive, affective, social, professional) and skill gains?*
- 2) *What variations (positive or negative) are discernable in learning outcomes of diverse student groups (based on gender, ethnicity, academic level, etc.) during the xREU experience?*

To answer the above questions, the evaluation strategy was to use a pre and post survey instrument called the National Engineering Students' Learning Outcomes Survey (NESLOS), derived from ABET criteria and an extensive literature review, that allows participants to self-assess their learning outcomes as a result of their experiences. The survey emphasized assessing knowledge and skills pertaining but not limited to: (a) problem-solving; (b) writing and communication skills; (c) teamwork; (d) confidence gains; (e) organization and management skills; and (f) interest and engagement with a research project.

Other evaluation instruments included demographic instrument, student surveys, and a mentor questionnaire regarding satisfaction with and perception of their mentors and their own performance. The surveys revealed attitudes and understanding among participants, knowledge outcomes and skill development in instructional materials and strategies that were in research educational modules. The evaluation focused on several measures and tools to be able to: 1) obtain information about the participants' learning outcomes; and 2) detect changes in learner experiences throughout the program. The analysis of the demographic data revealed baseline information about the sample characteristics. Some of these included the participants' academic status, professional and social abilities and skills, as well as motivation to learn and engage in course-related activities.

Overall, the learners seemed to be rather self-confident in their domain-specific knowledge, problem-solving and critical thinking skills, as well as social abilities. They

also reported being able to handle workload despite the fact that it was perceived as stressful by all the participants. Both intrinsic and extrinsic factors, such as curiosity and peer recognition, were found to play a major role in motivating the participants to engage in academic content. The analysis of the quantitative data obtained from the pre and post survey instrument (NESLOS) did not show any significant differences. One possible explanation might be that the sample size was too small to be able to detect any significant differences. However, analysis of the qualitative instrument did yield some interesting findings regarding students' attitudes and perceptions. More specifically, students enjoyed hands-on activities over 8 weeks and named it the most useful activity in their statements. In addition, the results showed that the students enjoyed the content and procedural knowledge, yet had some difficulties in confronting terminologies and definitions.

One of the objectives of the proposed experiential learning (xRUE) program was to empower the faculty as well as students with experiential learning opportunities. The analysis of both open-ended and demographic features showed that teachers have used traditional methods of teaching. This means that the teachers used traditional lecturing in their classrooms and rarely used other activities such as guided questioning and small group discussions. In line with implementing traditional methods of teaching, teachers had also used traditional methods of assessing by having multiple quizzes during the quarter.

**Keywords:** experiential, self-directed learning, learning styles

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# A Pedagogical Approach Towards Assembly Language

Yaser Daanial Khan<sup>1</sup>, Tanzeela Shakeel,<sup>2</sup> Rebecca Fox<sup>3</sup> and Shaukat Iqbal<sup>4</sup>

Department of Computer Science, School of Science and Technology  
University of Management and Technology, Lahore, Pakistan

<sup>1</sup>yaser.khan@umt.edu.pk

<sup>2</sup>tanzeela.shakeel@umt.edu.pk

<sup>4</sup>shaukat.iqbal@umt.edu.pk

College of Education and Human Development (CEHD),  
George Mason University, Fairfax, Virginia, USA

<sup>3</sup>rfox@gmu.edu.pk

## Abstract

Assembly Language Programming is an important Core Course in the department of computer science. The authors hope that this article can crucially help the instructor as a pedagogical tool for teaching most fundamental principle behind assembly language. Moreover, it provides the most appropriate sequence in which assembly concept should be deliberated that makes it more meaningful and easy to grasp.

**Keywords:** appropriate sequence, interrupt, string, structure of program, addressing modes

## Introduction

Curriculums of computer science departments are constantly upgrading worldwide. With the advancement in technology, new and state of art research arenas, such as Computer Vision, Mobile Applications, Bioinformatics, Computer security and Computer networks, has expanded coverage on their important topics. Mostly Application Software development programs are written in contemporary high-level languages. Unfortunately, low level computer languages are ignored or downplayed. In order to develop a profound understanding of a computer system and to be able to design assiduous and efficient programs it's incumbent to develop expertise in low level programming languages.

Assembly Language is an Intermediate low-level programming language which is generally considered to be a level higher than machine language while on the other hand it is term to be at level lower than high level language; such as Java, C, and FORTRAN; for a computer, microcomputer, or other programmable devices. It implements a symbolic representation of binary machine instructions. Every type of computer hardware has its own Machine Language and consequently Assembly Language. In the beginning of Programming era, all programs were written in assembly language. Now, mostly programs are written in high- level languages such as BASIC, C or Java, which are generally portable across multiple systems.

Programmers still use assembly language when efficiency is essential or when the accessibility to system hardware is required, that is not possible with a high-level

language. Efficiency refers to how “well” a program performs in terms of space and time (space and time efficiency).

Time-efficiency conveys how much time is consumed to execute a program where as Space-efficiency describes the memory required by the program (i.e., the size of the data and code). It has been observed that the programs developed in assembly language seems to generate faster and compact executable code as compared to high-level language program code. This is mainly because they are optimized by humans rather than automated code optimizers.

The basic direction and sequence in which assembly language concepts are delivered plays a crucial role in quick learning and better understanding of students. A sound conceptual grasp will enable the students to write more meaningful and efficient programs in assembly language. This paper focuses on the most appropriate sequence in which assembly concepts should be delivered for desired outcome. The paper is divided into four sections; section 2 will cover the related work, section 3 will cover the Basic appropriate Sequence of an ALP, and section 4 will cover the conclusion.

### **Literature Review**

Assembly Language is an important factor for software engineers and computer scientists. For achieving knowledge of overall system programming, comprehensive exposure of assembly language and commendable understanding of computer architecture is an important aspect. The two major elements that bring success in assembly language are deep understanding of Assembly language syntax and practicing it through programming.

In (Xiao Yong-peng, Yin Ming-hao, 2010), the author mainly focused on how to teach assembly language based on teaching activities, using students as the major roles, to improve student’s Assembly Language programming ability and expand their range of knowledge.

In (Ying Zhu, 2010), the author addressed the issue of “Refining Teaching Method” for technologies related to software interfacing. Moreover, the author teaches issues related to assembly language and interfacing. The author stressed that these topics were the most important sections which should be comprehended in depth. While, on the other hand, they seemed hard to be explained. To further endorse the quality of teaching, they introduced other methods, such as Discussion based teaching method; discovery methods and exploration based teaching Method.

In (Mu Lingling, 2008), the author discussed the tool for the automatic assessment of assembly language programs. This paper focused on the assessing strategy and implementation of an assembly language program. It also explained the background and aims for developing the assessment tool, based on MASM, a development tool for assembly language.

In (Eric Larson, October 22 – 25, 2008, ), author focused on ANNA (A New Noncomplex Architecture) assembly language, which is based on a novel 16-bit architecture whose instruction set is quite comparable to MIPS. In ANNA few instructions are adequate in demonstrating how high-level languages are translated into low level assembly language, how to implement pipelining, and how to design a CPU data path. The paper described how ANNA can be used effectually in a programming course such as assembly language and computer organization.

In (\*, September 9-12,2007), the author introduced a new programming approach in which most important and frequently used assembly instruction were substituted into simple equivalents for assembly language programming; as it was hard to recall the mnemonics for each instruction. These equivalent instructions used simple familiar operator which established a significant explanation in assembly language programming. This new approach had a free format structure so it was therefore called the Free Format Assembly Language. VC++ tool was used for assessing the performance of this language. The result showed that it was a good substitute for assembly language.

In (Xu, 2011), the paper focused on how to improve the teaching practices for “Assembly language programming”, it predominantly emphasized on the topics relevant to DOS assembly, 80x86 assembly and Win 32 Assembly. Low level languages are closest to the hardware; therefore they are non-intuitive, convoluted and demanding for students to learn. These difficulties can alleviate if teachers have an in-depth understanding and knowhow of key concepts. The paper mainly focused on how to efficiently elucidate the teaching tactics and the teaching content, and how to assume better pedagogical methods.

In (Zhang Jun, 2009) the author discussed how to practice training for Assembly Language and Programming.

For more convenience of the assembly student and teacher, the experimentation devised to teach of Assembly language programming were focused into three areas, which were technical experiments, verified experiments, and comprehensive experiments, and their thorough purpose was also deliberated. The author focused on arranging experiments and assignments of the total time for the student to grasp the concepts delivered in the classroom.

In (Ronnie Yang Kum Yuen, 1997), the author designed an assembly language software development tool that covered the deficits in the conventional book reading approach towards the learning process of assembly language programming. The software tool converted the text based code into hierarchical flow chart format. Its extensive collection provided the editing in flow chart, and also the capability to accommodate the conception of debugging program code control of program flow that made this application an outstanding tool for assembly programmers.

In (MACKENZIE, MAY 1988)the author introduced structured programming techniques, also called pseudo code, for assembly language programming. It used three basic

structures: linear, conditional and loop. Using this pseudo code method, students successfully developed software in assembly language.

The research findings indicated that there was no defined convenient way to make students understand assembly language courses. Neither was an appropriate research conducted that emphasized on teaching methods for assembly language in an appropriate sequential manner. Hence, the researchers were motivated to take up the subject and work on it.

## Basic Sequence for Assembly Language Curriculum

### Structure of Program

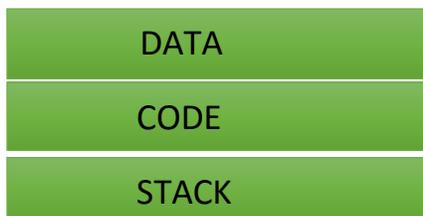
A program developed in assembly language entails a sequence of instructions that instructs the computer to perform a specific operation. A typical program will have three sections; the data part that contains all the static global variables, the code part that contains all the instruction to be executed, and the stack part that is accessed using last in first out policy (FIG 1). The directives used to mark the start and end of each section are given below:

1. **Assembler directives:** Assembler directives are assembler commands that are used to control the assembler. Assembler directives are not directly translated into machine but they affect the generated machine code. Directives are commonly used to define segments, procedures, variables, constants and macros. Few of the commonly used directives in a typical program are as follows:

- 2.

A) **TITLE:** The title directive usually optional and stipulates the title used for the program. Any text typed next to the directive is displayed atop of every page in the complete listing of the program file.

B) **MODEL:** It is used to specify a specific memory model for the program deemed suitable by the programmer. The assembler reserves the essential amount of segments of data, code and stack, as shown in Fig.1.



**Figure 1 :** Memory model of a typical program

3. **Segment directive:** The following directives are used to specify the segments:
  - a. **.STACK:** It marks the start of stack segment of the program; the size of the stack can vary up to 64kb.
  - b. **.CODE:** It marks the start of the code part of the program containing the instructions.

- c. `.DATA`: All the static and globally used variables are defined in this. The directive marks the start of data part. Subsequently, other directives like `DB`, `DW`, `DD` and `DQ` are used to reserve one, two, four and eight byte sized memory locations.
- d. `PROC`: It is used to define the start of a procedure. A name is declared just before the directive which serves as the name of the procedure.
- e. `ENDP`: It marks the end of the procedure.
- f. `END`: It marks the end of the assembly language program. Any lines of text, placed after this directive, are simply ignored by the assembler.

### Assembly language instructions

The initial few letter of the instruction specifies the operation performed by the instruction in mnemonic code. The assembler translates this symbolic opcode into a machine language opcode. These instructions may be classified into different categories: data movement, arithmetic/logic, and control flow, string handling, processor control, interrupt control and miscellaneous instructions.

### Comments

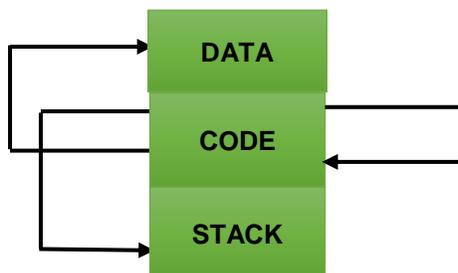
The assembler ignores anything typed after the comment mark on that line. It is almost impossible to UNDERSTAND an assembly language program without good comments. A semi-colon (;) is used to signify start of comments line (Table 1).

**Table.1** : Basic Structure of a Program

TITLE .....	
.MODEL ...	
.STACK	
.DATA ; Beginning of data segment.	
.....	
.CODE ; Beginning of code segment.	
Start; Indicates the beginning of instructions.	
Main PROC ;Beginning of procedure (if necessary)	
.....	
Main ENDP; End of procedure.	
END start ; End of instruction.	

### Addressing Modes

A Memory Addressing Mode refers to how a memory location is accessed in a program. Information contained in the instruction code is the value of the operand or the address of the operand. Fig. 2 shows the main addressing modes that are used on various platforms and architectures.



**Figure 2:** Memory addressing modes

### Data memory addressing mode

MOV instruction, explicitly LOAD and STORE, is used to transfer a primitively sized data operand from source to destination. It is further divided into direct and indirect addressing modes:

1. Direct addressing: The value to be stored in memory is obtained by DIRECTLY retrieving it from another memory location.
2. Indirect Mode: The Register indirect addressing allows data to be accessed from any memory location through an offset address held in Base or index Register.

### Program memory addressing Modes

It allows conditional and unconditional branch, using a multitude of jump instructions to any location in the code segment. A conditional jump typically checks some condition of flags and decides to branch or not; while unconditional jump branches anyway. With this addressing mode, the Segment address and offset address of instructions are overwritten in CS: IP registers.

Stack Memory addressing Modes: The stack plays a vital role in all microprocessor. The stack memory is a LIFO (Last-in, First out) memory, which holds data temporarily. Data is placed onto the stack with push and removed with a pop instruction. It is basically used in Recursion and Function calls operations (FIG 2).

### Arithmetic and Logical Instructions

The processor instruction set provides arithmetic instructions that include addition, subtraction, multiplication, division, increment, decrement, negation and comparison. The Following opcode ADD, SUB, MUL, DIV, INC, DEC, NEG, and CMP are used for arithmetic instructions. Table 2 shows the syntax of arithmetic instructions. The processor instruction set provides a set of logical instructions like OR, AND, NOT, XOR and TEST, which sets, tests, and clears the Bits according to the need of the program. Table 3 shows the syntax of logical instructions.

It is important to emphasize the significance of multiplier and multiplicand in case of multiplication and also dividend and divisor in case of division. Typically, students face difficulty in grasping the idea that MUL and DIV are single address instructions contrary to ADD and SUB instruction.

The students can be given as an exercise to develop an algorithm that computes the sum/difference of large numbers i.e 256 bit numbers. Such exercise will enable them to grasp the significance of extension SBB and ADC instruction.

**Table.2:** Arithmetic Instructions

ADD <REG>, <REG>	SUB <REG>, <REG>	MUL <REG>
ADD <REG>, <MEM>	SUB <REG>, <MEM>	IMUL<MEM>
ADD <REG>, <CONST>	SUB <REG>, <CONST>	DIV <REG>
INC <REG>	INC <MEM>	CMP <REG>, <REG>
DEC <REG>	DEC<MEM>	CMP<REG>, <MEM>

**Table.3:** Logical Instruction

AND <REG>, <REG>	OR <REG>, <REG>	XOR<REG>, <REG>
AND <REG>, <MEM>	OR <REG>, <MEM>	XOR<REG>, <MEM>
AND <REG>, <CON>	OR <REG>, <CON>	XOR<REG>, <CON>
TEST <REG>, <REG>	TEST<REG>, <MEM>	TEST<REG>, <CON>
NOT <REG>	NOT <MEM>	

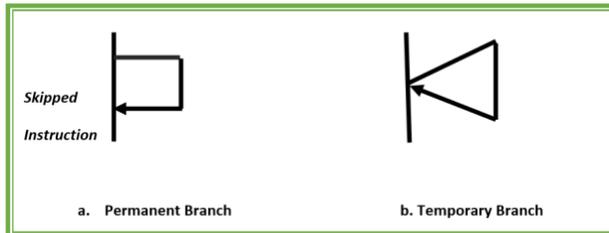
The microprocessor provides rotate and shift instructions that are used to manipulate bits of any memory or register data. There are four Shifts operations: 2 logical SHL, SHR and 2 arithmetic SAR, SAL shift operations. There are also four rotate operations: 2 logical ROR, ROL and 2 arithmetic RCR, RCL shift operations, (B.Brey, 2008). Table 4 shows the syntax of shift and rotates instructions.

**Table 4 :** Shift and Rotate Instructions

SHL <REG>, <CON>	SHR<REG>, <CON>
SHL<MEM>, <CON>	SHR<MEM>, <CON>
ROL<REG>, <CON>	RCR<MEM>, <CON>
ROR<REG>, <CON>	RCL<REG>, <CON>

### Permanent & Temporary Branch

The Processor normally executes instructions sequentially. The next instruction to be executed is placed sequentially at the next memory location, after the current one. Branch instructions allow the flow of program to change. These branches are of two types: permanent and Temporary. As shown in Fig. 3. The most basic kind of permanent branches is the unconditional (JMP) and conditional branches structure (IF, IF-ELSE, While, Do-While, Switch) jump.



**Figure 3 :** Permanent and Temporary branch

The JMP (jump) instruction unconditionally transfers control to another point in the program, which skips all the instructions to be executed next. A conditional branch may or may not cause a transfer of control depending on the value of stored bits in the FLAG register. If the condition is true, control is transferred to the effective address ( $IP \leftarrow Add$ ). If the condition is false, the program continues with the next instruction ( $IP \leftarrow IP+1$ )

Procedure CALL and Return from the Procedure instructions are the kind of temporary branch. When a procedure is called, the starting address of the procedure is stored in the IP and the instruction following the current instruction is temporarily stored in Stack. When the procedure is executed, the return is made to the main program by loading the

IP with its old value, (Irvine). Table 5 shows the flow of temporary and permanent branch instructions

**Table.5:** Permanent and Temporary Branch Instructions

JMP Label	(Unconditional Branch)
CMP <REG>, <REG>	
JE Label1	(Conditional Branch)
Call Label2	(Procedure Call )
RET	(Temporary Branch)

### Interrupt Calls

An interrupt transfers control from a program that is currently running to an interrupt handler routine, as a result of externally or internally generated request. A callback subroutine called when an interrupt is received, also known as Interrupt Service Routine (ISR), (Yatha Yu). There are two types of interrupts:

1. Hardware Interrupts: Generated as a result of a signal from some device e.g. mouse, keyboard, etc.
2. Software Interrupts: Caused by some exceptional condition or by some specific instruction. The INT instruction invokes the respective ISR to perform the task assigned, it has the format

### INT interrupt number

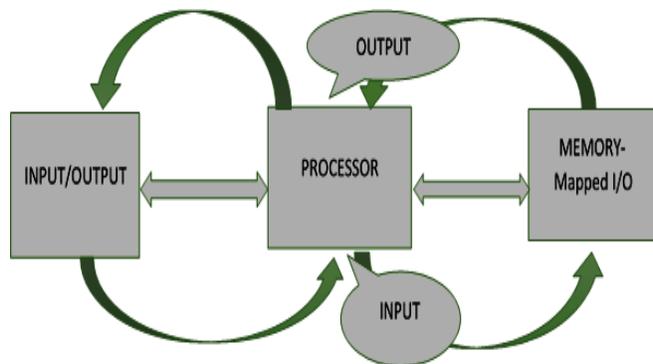
Interrupt number specifies a specific routine. Number of interrupts supported by instruction set are 256 but every interrupt can have up to 256 sub interrupts (services). So, the total number of interrupts is:

$$(256 * 256) = 65,536$$

The difference between INT and CALL instructions is that a CALL instruction gives a specific address within the instruction to branch inside the 1 MB address range but if INT is given an Interrupt number, it goes to a fixed memory location in the Interrupt Vector Table to get the address of the interrupt service routine.

### Input and output Instruction

Each microprocessor provides instructions for Input/output (I/O) IN and OUT instructions; which are used to input data from peripherals or output data to peripherals. Peripherals are the devices that are externally attached to the processor, e.g. keyboard and screen. Memory-mapped I/O as well as isolated I/O subsystems both requires the attention of CPU to move data between the peripheral IO device and the main memory, as shown in Fig. 4.



**Figure 4:** Processor interfacing with an isolated input\output and memory mapped I/O  
Table 6 shows the syntax of an Isolated Input\Output.

**Table 6:** Isolated Input\Output

IN <REG>, Port number (Read input data from peripheral devices)
OUT Port number, <REG> (Write output data to peripheral devices)

### String Instruction

The String instructions are designed for array processing. String in assembly language is just sequentially stored data operands. By using these string instructions the size of the program is considerably reduced. The major string transfer instructions are: MOVS, STOS, LODS, SCAS and CMPS. Each string instruction allows data to be transferred in single byte, word or double word. With the help of these string data transfer instructions different string operations can be performed like copying a string into another string, storing characters in a string, concatenation of two strings, searching a string for a particular byte or word, comparing strings of characters, and searching the length of a particular string, (B.Brey, 2008).

### Assessment and Reflection

Assessments are an essential component of the pedagogical process without which the whole practice maybe rendered useless. Assessment is a feedback mechanism for students as well as teachers. They motivate the student to study and perform well in terms of understanding and practical applications. Furthermore, assessments also help the teachers to deduce that how effective his pedagogical technique is, what he is lacking and where he needs to emphasize more. Formative assessments help to understand the need of the student while summative assessment works as a feedback mechanism for the teacher as well as the student about his understanding of the problem. In both the cases the teacher can deduce where the students are lacking. It is suggested to carry out this feedback mechanism in an iterative manner such that deduce the shortcomings and the problems faced by students and hence improve the pedagogical process. These principles are easily adaptable for assembly language teaching. The teacher can setup short term and long term checkpoint during the progression of the course. An optimal policy would be to setup formative assessment at short term checkpoints and conduct summative assessments at long term checkpoints. One method could be setup long term checkpoints at the conclusion of each of the

major topics discussed earlier. Subsequently, short term checkpoints can be setup at the conclusion of each class or at the end of weekly sessions.

Religiously following the given guidelines is not merely road to success. In order to excel and improve the pedagogical process a teacher needs to reflect on his practices. He needs to take his time to ponder what went well, what needs improvement and what did not go well. In the process he can make use of feedback received in form of summative and formative assessments. Focus should be put onto each of the aspects of assembly language constructs discussed earlier. Feedback collected in an iterative pattern from consecutive semesters can play role as an important information for reflecting upon pedagogical techniques for assembly language teaching.

### **Conclusion**

Since the Assembly language is complicated and elementary therefore, it highly requires practice for learning. It is difficult for students to learn and master without adequate Content sequence. An appropriate sequence should be designed to make it pedagogically easy for instructors to deliver and for students to grasp its concepts. Furthermore, teachers should have a strong grasp of key concepts and common difficulties faced by a student in assembly language. Consequently, this paper offers the most basic and appropriate sequence in which assembly concept should be delivered. The purpose of a most apt sequence is to aid teachers and help the students to better understand and grasp the essence of the Assembly Language, and eventually apply it in practice. The objective is to endorse the teaching of assembly language programming, and to let students develop an in depth knowledge and skills pertaining to programming practices in assembly language.

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# A Discussion for Instructing the Math Methods Course

Gary Christie

Baldwin Wallace University, USA  
gchristi@bw.edu

## Abstract

Many of the textbooks designed for mathematics methods courses discuss the National Council of Teachers of Mathematics' Process Standards, the National Research Council's attributes that compose Mathematical Proficiency, and the definitions of effective instruction from the Eight Mathematical Practices of the Common. However, the author finds these principals and standards are usually discussed in the earlier chapters of the texts, disconnected from the activities and suggestions later presented for teaching various topics. Boyer discussed the need for a "scholarship of integration" to provide, among other benefits, a coherent model for students to organize knowledge. The author suggests a pedagogical model emphasizing said principals and standards evident within the design of activities described to teach specific content. The author seeks to discuss how methods shown in the college methods course can be explicitly centered about these concepts, and the benefits for presenting such courses in this manner. Finally, the author seeks to identify other concepts appropriate for this pedagogical approach, and better methods of integrating these types of concepts into a methods course.

**Keywords:** mathematics, methods, pedagogy, curriculum, instruction

## Discussion

Much research continues and has been completed concerning methods for teaching various mathematical topics. However, not much "quality" empirical studies have been completed that attempt to understand the impact teacher preparation programs have for student achievement (Conference Board of the Mathematical Sciences, 2012).

Given the sparse quality empirical guidance and standards for math instruction in the methods classroom in terms of K-12 student achievement, instructors may rely upon methods textbooks as well as personal experience to meet classroom needs. Many of the methods textbooks follow a format where fundamental concepts underlying quality instruction are introduced, followed by specific activities designed to teach content. Often, these introductory concepts center about standards and definitions developed by various organizations such as the National Council of Teachers of Mathematics' Process Standards (National Council for Teachers of Mathematics, 2000), the National Research Council's attributes comprising Mathematical Proficiency (2001), and the Common Core State Standards Initiative (2012). However, the textbooks usually fail to discuss these standards in terms of how they are evident in the design of the educational activities and tasks for various topic instruction.

For example, Van de Walle, Karp, and Bay-Williams' (2010) text introduces the standards and what they might look like in a class setting through the first three

chapters of the text. Reys, Lindquist, Lambdin, and Smith (2007) take a similar approach, introducing standards in Chapters 2, 5, and 6. Though both texts provide excellent coverage and discussion of the fundamental concepts for teaching mathematics, little mention of these concepts ensues in the remaining chapters where particular methods for teaching number, the operations, measurement, etc. are discussed.

Bringing theory and practice together may be a challenge for students in these methods courses, as the concepts discussed in the opening part of the text/course are often isolated and disconnected from the activities that were designed upon these very concepts. However, a line of research identified by Boyer (1990) discusses such disconnects between theory and practice, and stresses the need to bring both together for students. Called the “scholarship of integration,” Boyer emphasizes the need to provide students with a more coherent view of knowledge – for scholars to go beyond the discussion of theories and collected facts and toward the integration of them into daily practice. For math methods courses and textbooks, this could be interpreted as integrating fundamental ideas for learning math and the practical recommendations shown to pre-service teachers.

In line with Boyer’s research, the author identifies several fundamental concepts behind the Process Standards, attributes of Mathematical Proficiency, and the Eight Mathematical Practices: Concrete to Abstract; Contextualized to Decontextualized; Conceptual Introductions; Explore – Patterns – Conjectures – Test Conjectures; and implementation of Bloom’s Taxonomy.

Using these fundamental concepts, the author’s methods courses begin as most courses: with an overview of the concepts. However, the author integrates the fundamental concepts throughout the course as various teaching strategies and methods aimed at particular mathematical content are introduced. For example, when strategies to help students learn how to add fractions are taught, the author will challenge students to find the fundamental concepts behind the activities. As students analyze and evaluate the activities in light of the fundamental concepts, they develop a better understanding for the meaning of the concepts, the importance of the concepts for mathematics teaching, and begin to integrate the theory of teaching with day-to-day classroom activities.

The author proposes a roundtable discussion to review this application of “integration of knowledge.” Once a basic understanding of the methodology of the courses are completed, the following questions would drive the discussion:

Evaluate the potential benefits of such a methodology. Are the concepts representative of current research?

Are the concepts inclusive of all major, fundamental beliefs about quality mathematics instruction?

Does this method of teaching mathematics methods offer students tangible benefits as Boyer's research envisions?

Such a discussion holds power for further research into practices in higher education that may have a positive impact for the K-12 student.

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# Young Children’s Playful Aggression: Removing the Ban From Early Childhood Policy and Practice

Jennifer Hart

University of the Sunshine Coast, Australia  
jenniferhart.ece@gmail.com

## Abstract

Young children’s play has been extensively studied in an effort to identify the specific behaviors of various types of play and corresponding developmental benefits to better understand how children learn, and to guide educators’ decision making when creating and implementing early childhood curricula, frameworks, and policies. Due to a growing number of preschool-age children enrolled in early childhood programs—more than 60% in the United States, 80% in Australia, and 90% in the United Kingdom (OECD, 2012)—numerous government initiatives to provide higher quality and more equitable learning experiences within safe and supportive early learning environments for children across locations, cultures, and abilities continue to be implemented, analyzed, and improved. The United States’ Developmentally Appropriate Practice (DAP), Australia’s Early Years Learning Framework (EYLF), and the United Kingdom’s Early Years Foundation Stage (EYFS) are three examples of national efforts to provide research-based principles and best practice guidance for educators’ delivery of quality educational experiences for the young children and families they serve.

Underpinned by decades of research DAP, the EYLF, and the EYFS are highly regarded resources that aim to support early childhood educators, educational policy makers, and children and their families to the highest standard by having play and play-based learning at the forefront of children’s educational and care experiences. Because children’s play involves a multitude of behaviors, purposes, and benefits researchers continue to add new knowledge that builds upon the historical theoretical perspectives that serve as the foundation for 21<sup>st</sup> century education and care. More specifically, decades of research demonstrate discrete types of social play that are omitted from DAP, the EYLF, and the EYFS. With the exception of rough-and-tumble deemed appropriate for children’s healthy development within DAP, highly beneficial play types that fall under the umbrella term of ‘playful aggression’ continue to be perceived negatively, in part due to their blatant exclusion (Hart, 2016).

Playful aggression is defined as “verbally and physically cooperative play behaviour involving at least two children, where all participants enjoyably and voluntarily engage in reciprocal role-playing that includes aggressive make-believe themes, actions, and words; yet lacks intent to harm either emotionally or physically” (Hart & Tannock, 2013). Rough-and-tumble play (Jarvis, 2007; Pellegrini, 1987; Smith & Lewis, 1984; Tannock, 2008), risky play (Sandseter, 2009), superhero play (Bauer & Dettore, 1997), “bad guy” play (Logue & Detour, 2011), active play (Logue & Harvey, 2010), play fighting (Hart & Tannock, 2013; Pellis & Pellis, 2007), big body play (Carlson, 2011b), war play (Levin & Carlsson-Paige, 2006; Hellendoorn & Harinck, 1997; Malloy & McMurray-Schwarz, 2004), and physically active and imaginative play (Parsons & Howe, 2006) are types of

playful aggression due to their similar playful aggressive behavioral characteristics (Hart & Tannock, 2013). Hart and Nagel (2017) demonstrate researchers' efforts to offer support strategies for the inclusion of all aggressive play types in early learning environments (see Bauer & Dettore, 1997; Calabrese, 2003; Carlson, 2011b; Freeman & Brown, 2004; Hart & Tannock 2013; Parsons & Howe, 2006; Pellegrini, 1987; Reed et al., 2000), and argue for the appropriateness of embedding prosocial skill development into an activity young children find enjoyable.

As playful aggression remains prohibited within educational policies (Boyd, 1997; Freeman & Brown, 2004; Reed et al., 2000), in part due to a adults' intolerance of the violent nature of the play (Hart & Tannock, 2013), playful aggression is prevalent despite efforts to ban it (Logues & Detour, 2011; Tannock, 2008). While males predominantly perceive playful aggression as beneficial to child development (Fletcher et al., 2011), females make up the majority of childcare workers in the U.S. (U.S. Bureau of Labor Statistics, 2011; Weldon, 2015), Australia (Werner, 2015), and the U.K. (Jackson, 2014) and are prone to creating learning environments that reflect and value feminine ways of interacting and behaving (Freeman & Brown, 2004). Sutton-Smith (1975) suggests that the restriction of play types in any educational program will foster play deficits. The elimination of playful aggression is particularly detrimental to young boys' growth and development (DiPietro, 1981) as they engage in aggressive play more often than girls (Carlson, 2011b; DiPietro; 1981; Freeman & Brown, 2004; Hewes & McEwan, 2006; Levin & Carlsson-Paige, 2006; Reed et al., 2000; Sutton-Smith, 1988).

Adults should create settings that welcome and encourage such play, however, the lack of support by female educators may be a result of aggressive play being outside of their personal experience (Freeman & Brown, 2004). This article serves to advocate for young boys' social play choices by demonstrating playful aggression as beneficial play behavior in need of removal from the school policies that ban it, and for its inclusion in early childhood curricula to support young children internationally.

**Keywords:** play, aggression, fighting, boys, behavior

# Examining Effective Teaching Methods and the Use of Materials in Math Teaching for Hearing Impaired Students: From Turkish Teachers' Perspectives

Hakan Sari<sup>1</sup> and Tuğba Pursun<sup>2</sup>

Necmettin Erbakan University, Turkey

<sup>1</sup>hakansari@gmail.com

<sup>2</sup>tugbapursun@gmail.com

## Abstract

Mathematics is an important field for students with hearing impairments which is necessary for being independent and successful individuals both in daily and in academic life. The nature of maths and also difficulties experienced by the hearing impaired on the issue of linguistic deficiencies and reading comprehension make learning difficult. In this concept, the quality of math teaching and the use of teaching methods, techniques and materials for hearing impaired students within the class are becoming important issues. However, studies about teachers' perspectives on their effective teaching methods, techniques and materials in math teaching for hearing impaired students are limited. The aim of the study is to find out about what teaching methods, techniques and materials which teachers use for educating the hearing impaired in math teaching. The study group consists of 21 teachers of the hearing impaired selected from the School for the Hearing Impaired. In the study, "Semi-Structured Interview Technique", as one of the qualitative research techniques, was used. Three main itemed "Semi-Structured Interview Form" was developed by the researchers, which was used and the data collected from the study were analysed by using 'Content Analysis Technique'. The research findings will be presented in details at Congress in America because the data analysis process is continuing.

**Keywords:** hearing impaired students math teaching special education

# Non-linear Disruptive Curriculum Approach

Rachana Misra

Kunskapsskolan School Lucknow, India  
rachana.misra28@gmail.com

## Abstract

Non-linear Disruptive Curriculum approach is a yet-to-be-researched idea that challenges the traditional linear, incremental, piece-meal, industrial revolution driven, one-rung-at-a-time approach. Here, learners pick an item from a pool ranging from songs, paintings, current news, engineering design products, cutting-edge technologies, new discoveries, modern innovations, literary pieces, and so on. They get a few keywords that provide clues on starting points to kick off exploration. Starting points are threads that branch off extensively into multiple areas touching upon seemingly unrelated fields, offering an enriching exploratory experience that moves non-linearly between simple and complex concepts.

**Keywords:** curriculum innovation, personalized learning, adaptive curriculum, non-linear disruptive curriculum, VR in learning, augmented reality and gaming in learning.

## Introduction

(a) The purpose of this document is to propose an innovative approach to curriculum design that has intricate inter-disciplinary links with no definite compartmentalization into traditional scholastic subjects, nor rigid chronological age level grouping. The curriculum thus designed is wide in scope, covers large areas of study linked to a specific kick-off point of exploration, and progresses as per student aptitude and drive. It is highly adaptive, personalized and relevant to the student's requirements and interest.

(b) Problem: Most educators at K-12 level approach curriculum design linearly based on the understanding that learning should always progress from known to unknown in an incremental fashion. It is believed that students learn best by building upon previous knowledge by adding new information systematically to old.

(c) Challenge that the idea addresses: New research shows that modern curriculum has to be adaptive, dynamic, personalized, exploration-based and oriented towards discovery, innovation, invention, extrapolation and new knowledge creation. Consequently, assessment of student achievements need to shift from standardized testing to focus on growth and progress of each student, irrespective of where the child started. Curriculum needs to shift to close collaboration between students and teachers who design assessment strategies that provide immediate actionable feedback to improve student learning experience.

(d) Idea: Non-linear Disruptive Curriculum is an approach that leaves behind the traditional safety of the current familiar one-step-of-the-ladder-at-a-time approach. Here, a learner picks from a pool of topics an interesting real-world one and begins exploring it using a given keyword phrase list that provides clues on starting points or clues on

where to begin. The starting points are threads that branch off into multiple areas touching upon seemingly unrelated fields, offering a rich exploratory experience. Kids essentially build up their knowledge base on the go as they explore. For example, one such starting point is a song the time signatures of which are related to the Fibonacci sequence and hence the Golden Ratio. The interdisciplinary links begin from music and touch mathematics (irrational numbers, geometric shapes), anthropology, aesthetics, art, architecture, history (Egyptian pyramids, Greek Parthenon statues), living world (arrangement of leaves and branches, veins, skeleton, patterns in nature), everyday design (TV, books, playing cards, book design), chemistry (geometry of crystals, proportions of chemical compounds), atoms (magnetic resonance of spins in Cobalt nitrate crystals), and human genome (DNA).

In addition, an exciting possibility for the next generation curriculum design is to increase effectiveness of this curriculum approach by incorporating augmented reality in learning to provide an immersive learning experience where kids learn from explorations based on elements of gaming using virtual reality.

(e) Conclusion: The non-linear disruptive curriculum approach would promote resourcefulness, personal initiative, critical and creative thinking, ingenuity, scientific temper, flexibility of thought, creatively linking seemingly unrelated information, and knowledge creation with a deep understanding, making learners future-ready.

# **Developing Pre-service Teacher Identity: A Theoretical Collaboration Between College Student Development Theory and Teacher Preparation Standards**

Michele Dickey-Kotz

Graceland University, USA  
dickey@graceland.edu

## **Connections and Organization**

Teacher preparation programs that are housed in liberal arts institutions are often closely tied to a mission of “transformation” and an emergence into one’s own self-hood. What we all share in common is that the goal of the student learning experience is to expand one’s mind -- to learn to think critically and to, through effective communication, consider and express one’s purpose in life and to claim (with conviction) one’s identity.

This symposium/presentation will extend the thinking of teacher preparation programs at liberal arts’ institutions as we struggle to develop in our candidates the critical qualities/dispositions that we cannot even truly define. The work moves toward reconciling the cognitive dissonance inherent in the tension between the liberal arts’ mission of identity development and transformation and the on-going challenge from our accrediting bodies to reduce teacher preparation programs to a collection of data that falls way short of evaluating who, among our candidates, has the heart and mind of a teacher. Identity development is a critical attribute for a successful teacher candidate; applying the body of work offered by college student development educators allows us, as teacher preparation educators, to facilitate the work of self-authorship and identity development into our programs and to truly commit to the mission of developing the whole person.

## **Research Framework, Practice, Insight**

Identity development theorist, Ruthellen Josselson, (1996) posits, “Identity is what we make of ourselves within a society that is making something of us” (p. 28). Teacher preparation programs are committed to developing candidates’ natural dispositions to teach; liberal arts institutions have the added responsibility of facilitating the development of a candidate’s self-hood and understanding of purpose (Daloz Parks, 2000). Sadly, accrediting bodies’ definitions of dispositions often drive our instruction away from the purposeful facilitation of teacher identity development and engagement of the natural “teacher within” our candidates. Instead, we often instruct candidates as to what they “ought to do” and what “they ought to know” (Hare, 2007 [cited in Diez and Raths, 2007] Palmer, 1998). With our teacher candidates, we rarely point to the question, “Who are you as a person/teacher?” – and when we do ask a candidate to make meaning of an experience in the context of who they are, it is often a superficial exercise that lacks the integrity of facilitating true meaning-making. It is, therefore necessary to not only reclaim our own teacher identity and integrity in order to model and expose our inner teacher, it is critical to assist, nurture, and develop the emerging teacher inside each of our candidates.

The literature establishes that the formation of a unique adult identity is a major developmental task of late adolescence and early adulthood (Chickering, 1969; Chickering & Reisser, 1993; Erikson, 1968; Marcia, 1980) and yet, paradoxically, several life-span theorists have described college attendance as a period of psychological moratorium (Erikson, 1968; Josselson, 1987; Marcia, 1980) in which adulthood is delayed. These theorists posit that college is a time when the student is constantly forced to respond and react to the environment in the struggle to establish his/her adult identity. Consequently, this tension challenges students to seize the opportunity to explore and experiment. This period of exploration, identity development, and broadening of horizons can be a period of considerable adult life construction and reconstruction (Chickering, 1969; Chickering & Reisser, 1993).

The literature establishes that the formation of a unique adult identity is a major developmental task of late adolescence and early adulthood (Baxter Magolda, 2004; Chickering, 1969; Chickering & Reisser, 1993; Erikson, 1968; Marcia, 1980) and yet, paradoxically, several life-span theorists have described college attendance as a period of psychological moratorium (Erikson, 1968; Josselson, 1987; Marcia, 1980) in which adulthood is delayed. These theorists posit that college is a time when the student is constantly forced to respond and react to the environment in the struggle to establish his/her adult identity. Consequently, this tension challenges students to seize the opportunity to explore and experiment. This period of exploration, identity development, and broadening of horizons can be a period of considerable adult life construction and reconstruction (Baxter, 1999; Chickering, 1969; Chickering & Reisser, 1993; Sanford, 1962). Baxter Magolda (2009) asserts that much of the development of traditional-aged students has to do with the increasingly complex meaning-making structures used to

“understanding oneself and one’s relationships with others” (as cited in Jones & Abes, 2013, p. 99). Baxter Magolda posits that process of meaning-making shifts from external to internal and that it is in that transition that students find themselves at a critical juncture in their own development and that it is at this juncture, that

self-authorship begins to unfold. Jones and Abes (2013) cite Kegan, Baxter Magolda’s

(1999) key influence on self-authorship, as suggesting “we use a particular meaning making structure until doing so no longer makes sense for us as a result of differences between that meaning-making structure and our current reality,” (p. 98). Teacher candidates are raised in their profession; this experience of apprenticeship of observation (Lortie, 1975 [cited by Borg, 2004) greatly influences candidates’ meaning making. It is the opinion of these researchers that through using the understanding of college student identity development theory we, as teacher preparation educators, can deeply impact candidate teacher identity and self-authorship.

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# **The Analysis of the Usage Level of Metacognition Strategies by Instructors in Learning-teaching Environments in Terms of Various Factors**

Ceyla Odabas

University of Gaziantep, Turkey  
eralpce@gmail.com

## **Abstract**

This study is prepared to determine the usage level of metacognitive strategies in learning-teaching environments by instructors in Gaziantep University Higher School of Foreign Languages. In this study, which is an example of descriptive work, survey method is used. As data collection tool, a questionnaire which has been made up of items related to instructors' personal information and the usage level of metacognition strategies in teaching-learning environments is used. The reliability studies are done for the scale. The questionnaire has been applied to 77 instructors in Higher School of Foreign Languages and the results were evaluated with SPSS Standard Statistics 22.0 for Mac program.

The results of the study reveals that the instructors generally use the metacognitive strategies but in some dimensions of the metacognitive strategies there are differences according to the levels they teach and the number of students in their classrooms. It is revealed that the instructors who teach in first classes use some strategies less than the instructors who teach in preparatory classes. However; there is no difference about using metacognitive strategies among instructors according to their gender, the departments they graduated and their seniority.

**Keywords:** metacognitive strategies, language teaching, instructor

# Effects of Field Trip and Cooperative Learning Strategies on Junior Secondary School Students Concept Attainment in Social Studies.

Adekunle Emmanuel Makanjuola<sup>1</sup>, Adenike Ogunduntan Olawuni<sup>2</sup> and Lateef Ademola Adeyanju<sup>3</sup>

Federal College of Education, Abeokuta, Nigeria

<sup>1</sup>makanjuolla@gmail.com

<sup>2</sup>olawuniadenikeo@gmail.com

College of Education, Ikere, Nigeria

<sup>3</sup>adeyanjuademola6@gmail.com

## Abstract

Social Studies, as a distinct school subject in Nigeria, had witnessed several stages in its developmental process and as a result of these changes; there is a continued debate about the most appropriate pedagogical technique in the teaching-learning of the subject at the Junior Secondary School level of education in Nigeria. This study then assessed the effects of two of the new pedagogical philosophy of field trip and cooperative learning strategies on students' concepts attainment in Social Studies at the Junior Secondary School level in Nigeria. The study adopted a 2x2 matrix design; a criterion sampling technique was used in selecting four hundred and eighty students (480) from Six (6) Junior Secondary schools in Abeokuta metropolis. Two instruments used were: Social Studies Performance Achievement Test (SSPAT) and Social Studies Attitude Scale (SSAS) and four hypotheses were formulated and tested at 0.05 level of significance with the use of independent t-test. The result showed that there was equality of instructional potency in the two techniques of teaching with a slight upward trajectory superiority of field trip technique over cooperative learning technique. On this predication, it was recommended that Social Studies teachers should get acquainted with the use of the two pedagogical strategies of field trip and cooperative learning to enhance good citizens and adequate internalisation of concepts in social studies in our schools.

**Keywords:** field trip, cooperative learning, concept attainment, social studies.

# Using Makerspace Resources to Make Mathematics Real

Stephanie Kurtts<sup>1</sup>, Victoria Budesa<sup>2</sup>, Natasha Hagan<sup>3</sup> and Chelsey Dickens<sup>4</sup>

University of North Carolina Greensboro, USA

<sup>1</sup>sakurtts@uncg.edu

<sup>2</sup>vlbudesa@uncg.edu

<sup>3</sup>tnhagan@uncg.edu

<sup>4</sup>ckdicken@uncg.edu

## Abstract

As students prepare to be 21<sup>st</sup> century global citizens, it is crucial that they see the connections between what they are learning in school and what they see as a future for themselves and their families. This has never been more critical as we see the significant influence of STEM/STEAM initiatives integrated across content areas. The Makerspace (makerspace.com) movement has taken innovation to a new level and offers the opportunity for children, teacher candidates, teachers, community mentors and university faculty to engage in innovative instruction that connects creative efforts using all levels of technology. This project shares how teacher candidates are designing and implementing mathematics lessons using Makerspace activities that encourage their students to think innovatively about mathematics and the real world.

## Introduction

It is important that all students are prepared for today's world and the future to think critically about issues that will be challenging at local, national, and global levels. Schools must offer access to effective instruction to quality STEM/STEAM learning opportunities that provide the beginning to engaging careers that will assist them in becoming leaders and innovators (Jolly, 2014; U.S. Department of Education, n.d.). In the U.S., only 16 percent of high school seniors are proficient in math and interested in a STEM career (U.S. Department of Education, n.d.). In order to ensure that students are competitive in a global economy, effective instruction in mathematics instruction that provides engaging and innovative approaches to meeting diverse learner interests is needed. The Makerspace movement meets just such a need as mathematics teachers turn to hands-on instructional activities that offer students opportunities to explore, research, design, create, and produce.

## The Makerspace Movement

Makerspaces are a 21<sup>st</sup> century twist on manufacturing. A makerspace is a community setting where students receive supports and guidance from parents, community mentors and area experts on creating, problem solving and developing skills that promote advance critical thinking (Preddy, 2013). Participants can interact with various tools, objects and high tech software to design, invent and explore possibilities through experimentation (Canino-Fluit, 2014; Lang, 2013). An entrepreneurial spirit is cultivated in students through activities that a Makerspace can provide (Britton, 2012; Glago, Mastropieri, & Scruggs, 2009).

## Lesson Planning in Mathematics with Makerspace Resources

Teacher candidates in a southeastern university in the U.S. have developed engaging and innovative mathematics lesson plans that are implemented using their university's Makerspace. These teacher candidates in elementary education and special education have worked to connect the U.S. Common Core in mathematics to creativity in and outside the classroom.

In this project, lesson plans at all levels are shared with explicit descriptions of how resources and materials are used to deliver mathematics instruction as well as provide students opportunities to engage in learning activities that increase the use of innovative technology. In addition, teacher candidates' lesson plans are supported by the framework of Universal Design for Learning (UDL), a set of principles that guide the design of learning environments that are accessible and effective for all students (Basham & Marino, 2013; CAST, 2011; Courey, Tappe, Siker, & LePage, 2012).

## Conclusion

This project using Makerspace resources and materials to create engaging mathematics lessons that address 21<sup>st</sup> century skills has created opportunities for teacher candidates to use the Makerspace to make better connections between university methods classes and field-based experiences in schools. These opportunities to explore, research, design, create, and produce have also offered numerous occasions to collaborate with one another as they prepared and implemented their lesson plans.

The project also offered a better understanding of the use of the makerspace to support initiatives between school partners, university partners, and community members.

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# Ebbing the Flow

Jessie King<sup>1</sup> and Steve Bounds<sup>2</sup>

Arkansas State University, USA

<sup>1</sup>king1j@hotmail.com

<sup>2</sup>sbounds@astate.edu

Public school districts across the United States face a dilemma of epic proportions (Mazin, 2011; Leko&Smith, 2010; Duesberg & Werblow, 2008). Accredited teachers are exiting the teaching profession in record numbers. Decades of high attrition rates have created an inadequate provision of qualified teachers coupled with an increase in demand creating an imbalance necessitating immediate action (Provost, 2009). Billingsley, (2004), also indicated that high attrition rates show that many teachers do not survive the initial growth from bright-eyed beginner to the highly qualified, experienced teacher that ensures student learning (Billingsley, 2004). This departure creates critical shortages in many areas of teaching. Nowhere is this exodus more keenly felt than in the field of special education (Connelly & Graham, 2009; Mershon, 2016). What will it take to curtail the flow of highly qualified teachers in the field of special education? What steps will need to be taken to increase the quantity of competent special educators? How can school districts hire and retain more quality teachers to ensure higher student outcomes?

Given our societal propensity to treat systemic educational issues by placing a Band-Aid on it without due consideration of the complex root cause, there is little doubt that the issue of teacher critical shortage areas will continue to exist and even expand. According to a report printed in March 2015, the areas of Math, Science and Special Education have experienced a critical shortage in teachers since 1990 (Education, 2015; Thornton, Peltier, & Medina, 2007; McLeskey, Tyler, & Flippin, 2004; McKenna, 2015). Special Education continues, even after many years, as areas of specific critical shortage (Ward & Wells, 2001). Identification of this chronic and critical area makes it imperative that colleges, administrators, supervisors, and superintendents gather information to find a solution to this plaguing enigma. During the 2016-2017 school year, nearly fifteen percent of the 2,800 special education teachers were on waivers from the state (Mershon, 2016).

## **Problem Statement**

Teacher critical shortages create far-reaching repercussions some of which include ineffective instruction, diminished student achievement and deficient proficiency of students in the workforce (Billingsley, 2004; Ward & Wells, 2001). The loss of special education teachers during the formative beginning years of teaching blocks the formation of experiences that helps them become the highly qualified professionals mandated by IDEIA (Darling-Hammond, 2003; DeNik, 2008; Kohl, 2013). Research shows that 25 to 50 percent of teachers in the United States abandon the teaching profession during the first three years of teaching due to their lack of skill set to handle the stress of teaching in this specialty area (Janik & Rothmann, 2015; Hentges, 2012; Kohl, 2013). According to a study completed by Kuehn, (2013), some districts were

forced to fill approximately one-third of the special education positions with non-certified teachers during the 1990-91 school year (Kuehn, 2013; Billingsley, 2004; Prater, Harris, & Fisher, 2007). High attrition rates create a fragile substructure that leads to a disintegration in scaffolding necessary for increased student learning (Hentges, 2012; Wasburn-Moses, 2005). The exigency for special educators continues to escalate due to continued growth in the identification of pupils with disabilities and high teacher attrition rates (Prather-Jones, 2011; DeMik, 2008; Connelly & Graham, 2009; Mershon, 2016; O'Donovan, 2011). The critical shortage of highly qualified special education teachers, as well as the increased growth in identification, have created a crisis within the special education classrooms (Kuehn, 2013; Mazin, 2011; Connelly & Graham, 2009; Yaffe, 2016; O'Donovan, 2011). Because of the deficiencies created by the lack of highly qualified teachers, the mandated quality education is not being received by students under IDEIA (Kuehn, 2013; Mershon, 2016).

### **Propose Of Study**

Research on the topic of why special education teachers leave the profession within the first five years creating a vacuum of highly qualified teachers in the classroom has been extensive. However, the studies and articles, to date, failed to compile a comprehensive list of reasons for low retention rates or to present a feasible model to alleviate the critical shortage of special education teachers in Arkansas. The purpose of this study is two-fold. First, this study determined the top five reasons why special education teacher attrition rates remain high in Arkansas. By inviting special education teachers from the 238 public school districts across Arkansas to express their perceptions of why special education teachers choose to leave the field of special education or abandon the profession altogether; the researchers created a summary of the top five reasons shared by the teachers. Secondly, based on the research results of this study and a close study of the literature, the researchers constructed a sustainable state-wide model to assist in the recruitment and retention of new generations of special educators in Arkansas over the next decade.

### **Objectives**

The long-term goal of the research was to develop a sustainable model that reduced the departure of highly qualified special education teachers in Arkansas over the next decade. Retention of qualified special education teachers in Arkansas is imperative to providing the exactitudes of instruction indicated in IDEIA. The sub-objective of the current study is:

1. Based on the survey results, to compose a comprehensive list of reasons why special educators leave the profession within the first five years of teaching.
2. To develop an awareness of the detrimental effects of teacher attrition rates for student achievement, school districts, and teacher education programs.
3. To determine, based on the results of the study, how special education teacher perceptions of teacher program training correlates to attrition rates in Arkansas.

The results of this study will provide a valuable tool to assist colleges/ universities, administrators, school districts and community leaders in identifying best practices to train, hire and retain highly qualified special teachers.

## Literature Review

Many studies completed over the past two decades indicate the shortages of teachers are not a product of the lack of new teachers being produced by colleges and universities but instead are a direct result of retaining teachers once they enter the profession (Darling-Hammond, 2003; Mazin, 2011). Another study states that one explanation for the teacher shortage in the area of special education is that the number of graduates is not keeping in sync with the needs of the districts (Leko & Smith, 2010). Many areas of education shoulder the burdens of high attrition rates, however, the two greatest areas of loss continue to be budgetary concerns and the loss of student achievement especially in the area of special education. Connelly and Graham, (2009), indicates that 97 percent of all school districts, nationwide, report vacancies in their special education departments (Connelly & Graham, 2009). Billingsley, (2004) indicates this may require schools to limit or reduce services to students with disabilities (Billingsley, 2004).

Higher attrition rates over the past two decades have placed many school districts in the undesirable position of hiring uncertified or unlicensed staff in reportedly one-third of all special education positions nationwide (Kuehn, 2013). Connelly & Graham, (2009) indicated attrition rates accounted for the majority of special education instructional shortages (Connelly & Graham, 2009). Financial burdens realized by the loss of experienced special education teachers through crisis level attrition rates is rivaled only by the loss of student productivity. According to Sedivy-Bon, (2012), retention of high-quality teachers is imperative to improving the quality of both teachers and school districts (Sedivy-Benton, 2012). Several quantitative studies link the lack of skills training during teacher education programs to classroom success. This study indicates an increase in teacher skills acquisition would affect attrition rates of special education teachers (Kuehn, 2013; Janik & Rothmann, 2015). Kuehn, (2013) also indicated that the shortage of special education teachers had been cited in studies many times over the past two decades, although it was only brought to light in the educational communities with the enactment of No Child Left Behind (NCLB) (Kuehn, 2013). In looking at school accountability, a measure that clearly focuses on limiting the achievement gap for students with special needs, it is imperative that schools hire and retain highly qualified special education teachers (Duesbery, 2008). The increase in non-certified teaching staff creates substandard educational outcomes as mandated by IDEIA (Connelly & Graham, 2009, Billingsley, 2004, Kuehn, 2013). McLeskey, Tyler, and Flippin, (2004) stated that approximately 11 percent of all special education teachers are uncertified (McLeskey, Tyler, & Flippin, 2004). A report from the Arkansas Department of Education noted that nearly 15% of the 2800 special education teachers in Arkansas were on a waiver (Mershon, 2016). Duesbery and Werblow, (2008) indicates that the low achievement levels of students with disabilities present a barrier to increased achievement stressing the continued need to retain experienced, highly trained special education teachers (Duesbery, 2008; Steinbrecher, Mckeown, & Walteher-Thomas, 2013).

Teacher attrition rates are exceptionally costly to the districts as they strive to implement programs and services to meet the needs of special education students (Connelly &

Graham, 2009; Sedivey-Benton, 2012). According to Connelly & Graham, (2009), high attrition rates destabilizes effective school practices and impedes the implementation of programming (Connelly & Graham, 2009). Retention of highly qualified teachers is imperative to improving teacher and school quality nationwide (Sedivy-Benton, 2012; DeMik, 2008). Teachers who leave the institute of teaching represents a loss of money, time and essence for the teachers and everyone associated with their training and employment (Hentges, 2012). Districts bear the brunt of the expenses when teachers leave. Studies indicate that as many as one-third of all teachers leave during their first three years and even as many as one-half leave within the first five years, this costs districts approximately \$8000 per teacher (Darling-Hammond, 2003; University of Arkansas; Office for Education Policy, 2005). Teachers who leave during the first three years cause the districts to take funds necessary for school improvements and invest them in a way that produces little to no long-term payoffs regarding student growth (Darling-Hammond, 2003). Kuehn, (2013), indicated that NCLB requires that every student with a disability show yearly progress for schools to continue receiving federal funding (Kuehn, 2013). However, with the lack of highly qualified teachers in the classroom, students may not be receiving the quality education mandated by IDEIA (Steinbrecher, Mckeown, & Walteher-Thomas, 2013). According to the Mazin study, (2011), parents are concerned not only with the variety of opportunities for services for students with special needs but also with the qualifications of the teachers (Mazin, 2011). Inadequate preparation for teachers of students with disabilities meets with ineffective practices, struggling to apply what they have learned during preparation programs and eventually supersedes any sustained long-term efforts at providing quality instruction (Billingsley, 2004). One study shared that the provision of quality instruction is a powerful tool in warranting economic, democratic, and social development of any educational community (Janik & Rothmann, 2015).

While some reports state that there has been a decline in the number of education degrees awarded it also shares that of those who graduate with educational degrees only about 60 percent apply for teaching licenses (University of Arkansas; Office for Education Policy, 2005). Training of additional teachers along with the retention of licensed teachers already in the field of special education is an essential ingredient in solving the critical teacher shortage in this area (Prather-Jones, 2011). With the shortage in the area of special education, many school districts are looking for more ways of retaining special education teachers within their districts. Kohl, (2013) affirms that mentoring beginning teachers appreciably increases the prospect of teacher retention by as much as 50 percent (Kohl, 2013; Ward & Wells, 2001). Kohl, (2013), also notes that the teachers working environment during the critical first three years of teaching frequently influences their decision to remain in the profession (Kohl, 2013). Ward and Wells, (2011), reported that mentoring, teacher perceptions and teacher appeal are factors that lure future teachers into the teaching field (Ward & Wells, 2001). Another major factor that influences teacher's career decisions was the level of support from administration (Prather-Jones, 2011).

Prather-Jones, (2011), indicated that retention of highly qualified teachers in the field of special education is strongly influenced by their perception of the level of support they receive from administrators (Prather-Jones, 2011).

## **Methods**

A quantitative research design was used for this study as a way of generating the numerical data concerning the perceptions and attitudes of special education teachers from the 238 school districts in Arkansas. Specifically, the focus of this study looked at the perceptions and attitudes of special education teachers in Arkansas regarding the importance of administrative support, mentorship in the early years, working conditions, teacher training models and how these perceptions correlate with retention and attrition rates.

Since teacher attrition rates have a direct, significant effect on the critical shortage rates of special education teachers in Arkansas as well as across the United States, this study was designed to answer the following four research questions:

- 1) How important do teachers feel administrative support is in the retention of early career special education teachers?
- 2) How important do special education teachers feel mentorship of early-career special educators is in correlation to current attrition rates?
- 3) How do teachers feel working conditions affect attrition rates of special education teachers?
- 4) How effective do teachers feel teacher preparation programs are in the areas of recruitment and attrition rates of special education teacher?

The research study employed by the researchers was a survey methodology and used a self-reporting instrument developed as a direct result of the related literature and recent studies. A convenience sample of local teachers was used to validate the content of the instrument. The survey consisted of information related to the demographics of the teachers (e.g. certification and years of teaching experience). It included eleven Likert Scale statements concerning the perceptions of special education teachers in correlation to the importance of administrative and LEA support, personal and professional respect, caseload, paperwork, professional development opportunities, pay, and one open-ended question relating to personal factors influencing a special education teacher's decision to stay or leave the special education classroom.

The researchers either contacted the administrator/LEA of the school to get the special education teachers email or identified the special education teacher's email address through the school's website. In some cases, the administrator was sent the invitation with the SurveyMonkey survey link to distribute to the special education teachers in the district. The invitation was sent to the special education teachers from each of the 238 school districts in Arkansas to respond to the series of eleven multiple choice and one open-ended questions through SurveyMonkey. A consent form was attached to the

beginning of the survey. Also, the beginning question asked for their permission to use the content of their survey. There was a yes or no consent at that point. If the respondent answered yes, then the survey continued. However, if the respondent answered no, then the survey would automatically end. The open-ended question required respondents to list their opinion of the top five reasons why special education teachers would choose to leave the field.

From these responses, the researchers compiled a list of steps needed to increase the rates of recruitment and retention of special education teachers. Using the compiled information, the researchers created a functional model for lowering teacher attrition rates of special education teachers in Arkansas over the next decade.

Secondly, the functional model for recruiting, supporting and retaining special education teachers generated from the data gathered would be available for presentations to the district, state, national, and global conferences. The creation of this model would enable colleges, universities and school districts to create enhanced training programs enabling future special educators to successfully transition from novice to highly qualified teachers further dropping teacher attrition rates.

The target population for this study was special education teachers in the k-12 public school system in Arkansas. These teachers were chosen as the target population because they are intimately involved in the exodus of teachers within the field of special education.

Teachers from the private schools were not invited to participate in this study. Teachers from the private school sector were not chosen because private schools do not use the same recruitment and hiring practices as public schools do.

Day treatment centers and other treatment facilities were also not included in this study. Day treatment centers and other treatment facilities do not operate on the same level as public schools for hiring and environment.

A convenience sample of seven special education teachers was given the address to the online survey to validate the reliability of the survey. The teachers were selected because they are special education teachers in neighboring districts.

The researchers determined that there are approximately 238 school districts in Arkansas through contacting the Arkansas Department of Education's website. The researcher printed out the district's contact information. District special education teachers listed on the website were contacted individually and given a link to the survey. The districts that did not list their special education teachers contact information were contacted to either provide the contact information or were sent the invitation to the survey to share with their teachers. Many chose to send the invitation out themselves. In that case, the researcher sent a copied invitation with the survey link provided at the bottom that could be sent by the LEA to the special education teachers involved.

The survey was left open for a two-week period. The survey data was collected and analyzed through SurveyMonkey. The results of this study provided both credences to the hypothesis as well as some added outcomes.

The researchers looked at the demographic information of the respondents to ascertain the age, gender, employment status, level of education, grade levels taught, the type of teaching position, and the area of the state of the respondent. These questions made up the first ten questions of the survey.

The demographics section revealed that the majority of respondents were female between the ages of 40 and 49. The majority suggested that they had achieved a graduate degree and had taught eleven years or more in rural central Arkansas. The respondents also indicated that they were currently employed in a public school, teaching grades k-5 special education classes.

The remaining areas of the survey consisted of questions 11-20, focusing on areas of specific concern identified through the literature review. Areas researched included support for special education teachers by administrators, expect from general education teachers, and the effects of caseload on teachers decisions to remain in the field. Other areas of concern examined were: teacher perceptions of smaller class sizes for beginning teachers, mentoring by someone experienced in special education, effectiveness of teacher education programs, the amount and use of professional development given, the amount of paperwork required, working conditions and how salary influenced teachers to either stay in the field or leave the field of special education.

The last question of the survey, question 21, asked the teachers/respondents to list their top five reasons they believe that would compel special education teachers to leave the special education classroom.

In response to question 11: "How important is administrative support?" Teachers responded with 95 % that having the support of administrative was very important in teachers decisions to remain in the field. 4.45 % felt that having administrative support was important while only .21 % felt it was not important.

In response to question 12: "How important respects in the workplace?" 93% of the respondents indicated that respect in the workplace was very important. 6% of the respondents felt that respect in the workplace was important and 1% felt that it was not a concern.

For question 13: "How much does your caseload affect your decision to stay at your current job?" 44% of the respondents noted that it affected their decision a lot and another 38% indicated that it affected their decision to stay, somewhat. 17% shared that caseload did not affect their decision to remain in their current position.

On question 14: “How important do you think it is to assign new teachers to smaller classes?” Teachers responded with a 51% saying that it matters very much with 43% indicating that it somewhat matters and 6% stating that it is not important at all.

For Question 15: “How important do you feel it is to be mentored by someone experienced in special education?” teachers indicated by 92% that it was very important to have mentorship by someone with special education experience, while 7% shared that they felt it was somewhat important. Only 0.42% indicated that it was not important to have mentorship by an experienced special education person.

Question 16: “Overall, how well do you feel your teacher education program prepared you for your current teaching assignment?” Overall 21% signified that they felt their program of study prepared them very well for their current teaching position. 57% indicated that they felt their teacher education program somewhat prepared them for their current teaching position and 21% stated they felt their program prepared them very well for their current teaching position.

Question 17: “How much does the amount of professional development affect your decision to stay at your current job?” 13% of respondents indicated they felt that the amount of professional development affected their decision to stay in their current position a lot, while 38% said that it had some effect on their decision to stay. 52% of those surveyed indicated that the amount of professional development had no effect on their decision to remain in their current position.

Question 18: “How does the amount of paperwork needed for IDEIA affect your job performance?” 68% of those surveyed indicated their job performance was very much affected by the amount of paperwork they were required to do, while 29% suggested their job performance was affected, but not too much by the amount of paperwork required by IDEIA. 4% indicated their job performance was not affected at all by the amount of paperwork they were required to do under IDEIA.

Question 19: “How important are working conditions, such as the number of extra duties assigned to your decision to remain in your current position?” 69% indicated that working conditions were very important in their decision to remain in the field. 28% noted that working conditions were somewhat important in their decision to remain in the field and 3% indicated that working conditions were not very important in their decisions to stay in the field.

Question 20: “How important is salary in determining if you continue working in your current position?” 55% of the respondents indicated that salary was a very important factor in their decision to stay in their current position. 37% indicated salary was somewhat important in their decision to remain in their current position and 8% indicated salary was not an important factor in their decision to remain in their current position.

The last section of the survey asked each respondent to list their top five perceptions of why a special education would choose to leave teaching. Each respondent listed their

responses in order of importance. The researchers categorized the responses purely by the percentage that listed the response. The researchers listed only the top five responses in this report.

The highest rated item listed by the teachers was paperwork. 73% of respondents reported the top reason for service teachers leaving special education is the amount of paperwork that is required by IDEA. Even with the paperwork reduction implemented over the past couple of years, teachers feel that time required to do the paperwork has a direct impact on the amount of time that they have with their students. They indicated that many times they were staying after hours to complete the paperwork or coming in on breaks and weekends. The after hours non-work schedule creates frustration because it takes time away from their own families.

The second highest response from the teachers was support. 67% of the respondents listed the amount of administrative/supervisory support as a major concern. Some of the respondents listed ideas such as lack of support for behavioral issues, parents, and concerns about legal issues without administrative support as an area of major concern.

Next, respondents ranked caseload as the third highest concern. 49% of the respondents indicated that the number of children with special needs folders held by the teacher is a concern. Teachers report being overwhelmed by the number of IEP's to monitor, the tracking of modifications and the varying degrees of disabilities within the class periods. With each separate subject areas, a special education teacher teaches not only are there a great many ability levels, but there is also more than one grade level, and sometimes even different subject areas themselves. The variability of each of the student's needs creates a unique level of need for teaching the student. Special education teachers are given the same amount of plan time as general education teachers, but they must prepare for more student variability.

Two areas that tied for fourth place in reporting from teachers was stress or burnout and respect. 40% of all respondents noted stress and burnout to be high on the list of reasons that special education teachers leave the profession. Respect was a close with 39% of the respondents noted the lack of respect from general education teachers, staff, and administration as a reason that retention rates remain high. Teachers commented that with the mounds of paperwork, lack of support, and the rising caseloads of children with special needs, special education teachers experience burnout more rapidly than do general education teachers. An added burden causing distress is the lack of respect shown by general education teachers and some administrators for the teaching certification and professionalism of special education teachers. Teachers feel that this lack of respect enhances their isolation from other teachers and hastens burnout.

The fifth-highest perception of the respondents for reasons why special education teachers leave teaching was pay. Many of the respondents reported that they felt the workload vs. pay should be more proportional. The respondents noted the workload of teaching, paperwork, grading, and prepping for multi-level classes were more involved

and required more time than in the general education classes, but they received the same pay.

## **Discussion**

Overall the study found several areas that needed to be addressed to reduce the exodus of special education teachers. This section will discuss the model produced as a direct result of this study and the review of the literature to recruit and retain highly qualified special education teachers in Arkansas over the next decade.

The perspective of special education teachers in Arkansas shows administrative support to be a major influencing factor in their decision to leave or remain in the field of special education. On the survey, 95% of the respondents indicated that the amount of support shown to them by administrators played a significant role in their decision to stay in the field of special education.

Administrators play a crucial role in not only the recruitment of special education teachers but in their retention as well (Hanson, 2011). Luke Duesbery and Jacob Werblow, (2008), confirmed the findings of this study as they indicated 70 to 80% of the respondents ranked administrative support as one of the top three reasons teachers remain in the profession (Duesbery, 2008). This information is useful in that administrators have control over the majority of factors concerning induction, retention, school climate, professional development, and mentorship within the school setting.

This section will discuss some ways for administrators to be proactive in their support for special education teachers, increasing the likelihood that they will remain in the teaching field. Some of the areas construed from this research that would be helpful in supporting special education teachers are providing clearly defined roles of special education teachers, understanding the variety of capacities in which each special education teachers must function and providing a strong level of school community support.

Given the vast array of levels in each disability category, it is imperative to focus on limiting the number of students for which each teacher is responsible. Along with limiting class size counseling the special educator in classroom and behavior management strategies through professional development would increase their skill levels as well as their efficacy levels. Another way of helping new teachers transition from theory to successful practice is ensuring they have the means of setting up operations in their classroom.

Helping new teachers with organization skills is also another way of increasing teacher skill levels and ensuring success in the classroom. Studies show that classroom management is one of the principal concerns of new teachers. While each set of students are different, there are certain elements of getting a learning environment set up that are constant. For example making sure that rules are written and displayed within easy access to the student's aides in getting the year off to a good start. Facilitating behavior training for new teachers is another essential skill that will ensure a

positive start. As an administrator being proactive in discussing classroom management techniques and school policies on behaviors will subsidize professional development training new teachers receive. Another topic that came up during the research was that of expected extracurricular activity participation by faculty.

Limiting extracurricular activities for special education teachers limits the demands placed on them as they fulfill the job expectations of meetings and the untold amounts of paperwork that accompanies special education requirements. Allocating special education teachers time to complete paperwork required by IDEA not only meets the requirements of the laws governing special education but also eases the stress levels for the teachers. While some extracurricular activity participation is expected, placing a limit on the number of duties placed on new teachers at least for the first two years is a way of helping them evolve and grow in their new positions. Preemptive actions in this area on the part of administrative leadership help to give special education teacher a more level playing field with teachers in other areas that may not have the burden of IDEA paperwork.

Another expanse controlled by administrators is the ability to provide appropriate and meaningful professional development. Professional development for special education teachers is unique and should focus mainly on IDEA requirements. Strategies and innovations presented during workshops should also be funded through the district for implementation in the classrooms. As special education is an ever-changing field, the laws and regulations are evolving almost daily. Assisting teachers to not only attend the workshops but affording them the opportunity to practice these new skills gives them the confidence to branch out and try new strategies that will invariably increase student achievement.

Mentoring with an experienced special education teacher is probably the most important tool that school districts have to instill self-confidence and self-efficacy in new teachers. Experienced special education mentors have a wealth of information and tried and true strategies to divulge to new teachers. Mentoring provides a means of not only introducing strategies that ensure professional success, reduce the fear factor and alleviate detrimental stress and burnout but also communicates value. Providing time for special education teachers to collaborate with colleagues also helps with a lessening of isolation.

The field of special education is such a specialized field that they can sometimes feel as if they are the only ones in the building. Administrators need to take the initiative to sanction activities that integrate different grades, subjects, and specialized areas. They serve as a catalyst to the socialization of new teachers into the learning community (Jones, 2008). One of the vital roles of administrators is to ample time for collaboration between grades and subject area teachers. Projects that assimilate the talents of both general education and special education students are helpful ways to create paths for collaboration. Activities that encompass all students also afford teachers an opportunity to value each other and builds stronger community bonds. The last segment that this study discusses in the administrative model is the concept of respect.

Everyone wants to feel valued. Teachers are no different. Research shows that administrators are the primary facilitator in creating a positive environment for all teachers (Combee, 2014). In this study, 39% of the respondents indicated that they felt the lack of respect among their peers was a reason they would leave their current positions. The administrative leadership should work towards effective strategies for promoting merit of all teachers in the district. Supporting the attributes of special education teachers as valued members of the faculty increases the probability of teacher retention.

This section will examine another important theme discovered through this study, the topic of teacher preparation programs. University and college teacher education programs prepare teachers for successful careers in the classroom. Several issues immersed from the study that showed the need for teacher preparation program improvements.

One theme focused on the need to increase the number of contact hours pre-service teachers spend in classrooms before graduation. The teachers surveyed indicated that they felt ill-prepared to take on the job of a head teacher after they graduated. An AACTE report indicated that many new teachers who had fewer contact hours in the pre-service setting felt less prepared to begin their own career as a teacher (American Association of Colleges for Teacher Education, 2012). Another area explored was the lack of pre-service experience with multiple disability groups.

Under IDEA, there are 13 different categories of disabilities. Under the 13 different categories, there is a multitude of variables making each student with a disability very individual. Understanding the differences in students and how they learn comes under the heading of theory and practice. Every teacher education program provides some contact hours for pre-service teachers. However, this study showed that special education teachers felt they were not given sufficient diversity in their contact hours to prepare them for the varieties of disabilities in their classes. The last area of concern noted in the study was pre-service programs not focusing on the specific paperwork required by IDEA.

Teacher prep programs focus on preparing the preservice teacher for content and theory, however, the study showed that teachers felt unprepared for the vast amounts of IDEA paperwork. Even though IDEA has issued several initiatives that focus on the reduction of paperwork, new teachers feel overwhelmed by the amount of paperwork and finding time to complete the paperwork without spending hours of their family time to do so. While school districts and educational coops spend much of their budgets on professional development to ensure that teachers receive the most up to date training, teachers feel overwhelmed with the amount of paperwork done each year.

### **Conclusion:**

Through this study many themes have emerged to help districts, schools and college preparatory programs meet the needs of new and pre-service special education teachers. Through the use of the models developed as a result of this study and a

review of the literature, administrators and teacher education programs should work together to increase the number of teacher candidates that successfully enter the work force. Administrators and school districts should then work closely with new special education teachers to meet their unique needs of assimilating into the world of special education. Providing for a smooth transition from pre-service to highly qualified teacher helps not only the district recruitment and retention efforts, but ensures higher student learning outcomes.

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# **Macao Secondary Teachers' Professional Development and Job Satisfaction: Evidences From the PISA 2015 Teacher Survey**

Pou-Seong Sit<sup>1</sup>, Soi-Kei Mak<sup>2</sup>, Man-Kai leong<sup>3</sup> and Kwok-Cheung Cheung<sup>4</sup>

University of Macau  
<sup>1</sup>psit@umac.mo  
<sup>2</sup>skmak@umac.mo  
<sup>3</sup>mkieong@umac.mo  
<sup>4</sup>kccheung@umac.mo

## **Abstract**

In the Programme for International Student Assessment (PISA) 2015 Scientific Literacy Study hosted by Organisation for Economic and Co-operation Development (OECD), Macao-China collected data from all its science teachers, as well as the general non-science teachers teaching in the secondary schools. The data collected, amongst others, comprise teacher background information, classroom teaching practices, teacher professional development, and teacher job satisfaction.

This study reports the profile of science and general non-science secondary teachers in PISA 2015 – gender, age, employment status, work status, highest level of formal education, teacher preparation in specialized subjects, teacher qualifications for teaching the three school subjects, teaching experience, and responsibility for decision-making. In addition, this study reports in-depth a number of indicators of teacher professional development – engagement in exchanges and co-ordination activities, engagement in professional collaboration activities, topics included in teacher's formal education and training, topics included in teacher's recent professional development, and teacher's view on school leadership. Last, this report summarizes the findings of teacher's job satisfaction with current working environment and with the teaching profession.

The implications of the findings for the betterment of classroom practices in Macao schools are discussed, emphasizing the build-up of professional learning communities of teachers with satisfactory job satisfaction in Macao, special administrative region of People's Republic of China.

**Keywords:** teacher professional development, classroom practice, job satisfaction, Macao, PISA

# Teaching Values and Resilience From Eastern and Western Perspectives Through Literary Analysis

Kate Nguyen<sup>1</sup>, Nile Stanley<sup>2</sup>, Tran Huy Hoang<sup>3</sup> and Laurel Stanley<sup>4</sup>

Vietnam Institute of Educational Sciences, Hanoi, Vietnam  
Department of Psychology  
<sup>1</sup>katepsyedu@gmail.com  
<sup>3</sup>hoang771@yahoo.com

University of North Florida, USA  
Department of Childhood Education, Literacy and TESOL  
<sup>2</sup>nstanley@unf.edu  
Grand Canyon University, USA  
College of Doctoral Studies  
<sup>4</sup>duckpond24@yahoo.com

## Abstract

A global priority is for teachers not only to teach academic skills, but to nurture students' resilience, and values. Accumulating evidence suggests that storytelling may be related to personal values and provide an important role in promoting resilience. A line of previous research studies conducted by the investigators and others was reviewed to serve as an empirical framework for the present study. The present study builds upon previous research to investigate the practical applications of teaching values and resilience through storytelling using literary analysis for Western adolescents (American and German) versus Eastern (Vietnamese) adolescents. Vietnamese college students of three majors, business  $n = 258$ , educational management  $n = 284$  and education  $n = 365$  (total  $n = 907$ ) were asked to respond to survey items on a predictor of value preferences. Analysis of variance (ANOVA) established significant value preference differences between the three majors. The data suggested that education majors tended to prefer openness to change values more than business and educational management majors and therefore are more likely to draw upon storytelling as a teaching method. Comparing Eastern versus Western prospective teachers' values preferences across studies revealed interesting cross cultural differences when approaching the challenge of teaching adolescents' values and resilience. Preliminary findings on the potential effectiveness of teaching American and Vietnamese educators how to teach adolescents storytelling and the literary analysis of novels for fostering the development of values and resilience are discussed.

**Keywords:** culture, values, storytelling

## Introduction

The Prime Minister of Vietnam called for the whole society together to improve education quality, which he described as key for Vietnam's sustainable development. Also he stressed educators should improve students' living values of respect and social responsibility (Nhan, 2016). Teachers are encouraged to teach academics, a good command of English, and soft skills also known as personal values needed for success in life. He encouraged teachers to nurture students' confidence, resilience, creativity,

and teamwork. Similarly in America, the relevance of literacy educators promoting educational resilience and values was underscored by the Children's Defense Fund (2014) report, *The State of America's Children*. The statistics for all children are startling. (p.11):

Each day in America for all children, 737 babies are born into poverty, 7 children or teens are killed by guns, 303 arrested for drug crimes, 404 are corporally punished, 1,055 high school students drop out, and 5,233 public school students are suspended.

Cohen (1998) calculated that (as cited in Vanderstaay ,2006, p.333) "U.S.. teachers save their communities more than a quarter of a million dollars *each* time their efforts keep *one* student from dropping out."

To teach living values to students teachers should consider using storytelling, a student centered approach. Accumulating evidence (Bems, 2003; Lien, 2014; Schutt & Stoehr, 2013; Stewart & Ames, 2014; Van, 2009) suggests personal storytelling and the reading and discussion of literature are "bibliotherapeutic.," related to personal values and provide an important role in promoting resilience.

This study is significant in that it helps us gain a better understanding of how college students' values, might inform their instruction of adolescents' values. and resilience. In a recent study (Ha,Lout, & Rozycka-Tran, 2015) of Vietnamese parents and adolescents values, researchers concluded that future research, like this, should consider the transmission of values and how values orientations change.

## **Literature Review**

Values represent basic individual motivations (Schwartz, 1992) and are also internalized as specific cultural practices through social institutions. Values define what is important for us, are stable through time and situations and guide choices and behavior.

Storytelling is one of the primary ways children are introduced to cultural values. The fundamental characteristics of a culture are revealed through an examination of its stories and literary traditions that are passed from one generation to the next.

Researchers have characterized the Western (American) and Eastern (Vietnam) cultural differences as individualism versus collectivism. Vietnamese stories are influenced by Confucianism and often focus on heroes as people who sacrifice for the benefit of the group. In American stories individual achievement and accomplishment are considered more important.

Nguyen, Stanley, Rank, Stanley and Wang (2015b) in a comparative study on storytelling perceptions of Eastern versus Western cultures, found that Americans and Germans had more frequent and longer childhood experiences of storytelling and more exposure to different genres of stories than the Chinese and Vietnamese. Anecdotal evidence from conversations with Vietnamese parents suggested that storytelling is often viewed as appropriate only for young children and not taken seriously as an academic subject. Furthermore, American instruction tends to be more student-centered with more discussion, and cooperative learning. At the heart of Vietnamese teaching

which is teacher centered is the necessity of obedience and respect for authority. The lecture method predominates and children speak up in class seldom.

Nguyen, Stanley, Rank, Stanley and Wang (2016) examined the mediator effects of values for the relationship between storytelling and resilience in Eastern versus Western prospective teachers. The best model from the study indicated storytelling and resilience were partially mediated by values. The findings indicated that prospective teachers who reported having significant childhood experiences of storytelling, and prefer openness to change values such as Benevolence, Self-Direction, and Stimulation perceive recalling, or telling stories more often for improving resilience. On the other hand, prospective teachers who report having less significant childhood experiences of storytelling, and prefer conservatism values such as Conformity, Tradition and Security perceive recalling, or telling stories less often for improving resilience. The data suggested that the perception that one can draw upon remembrances of stories for improving resilience is related to a combination of factors: one's values, individual and cultural differences.

Recent research (Nguyen, Stanley, Stanley, & Wang, 2015) identified five protective factors for resilience: (1) social competence, (2) problem-solving skills, (3) autonomy, (4) sense of purpose, and (5) use of storytelling. Hope at Hand ([www.hopeathand.org](http://www.hopeathand.org)) is a non-profit agency that provides poetry and art therapy to the homeless, teenagers in recovery and organizations in Jacksonville Florida. At the heart of the Hope at Hand mission is the belief that storytelling helps students connect their pasts to create desirable futures. Student-centered learning through storytelling creates opportunities for participants to explore feelings through poetry, stories, and songs, reflect through journaling, increase self-awareness, trust others in a supportive community, experience joy and success and consider choice and change. Resilience, the ability to bounce back from ordeals, and other living values can be learned by students telling the personal stories of their lives immersing ourselves in the lives of outstanding literary characters and understanding the wisdom of the ways they overcame adversity.

The literary analysis approach has theoretical connections with sociolinguistic theories and narrative psychological theories. It is alternatively known as storytelling, teaching literature with reader-response theory, discourse analysis, and bibliotherapy. For example, Berns (2003) explored bibliotherapy as a process in which death-related literature is used to help bereaved children cope with experiences of death and loss. The bibliotherapeutic process or literary analysis involved a skilled adult who used books, discussion and storytelling to help children in many ways..

Stewart and Ames (2014) described the use of culturally affirming, thematically appropriate bibliotherapy as part of a long-term program to assist a group of elementary school aged African-American children displaced by Hurricane Katrina to become more resilient.

Lien (2014) focused on the potential use of discourse analysis in literature teaching English as a foreign language (EFL) in Vietnam. In an ethnographic, reflective essay

he described how he radically changed the teaching culture at a private university in Vietnam which used to consider the analysis of literary works as reading comprehension lesson. Using this novel approach has gradually formed a class in which the teacher talks, the students talk and the literary texts talk.

## **Methodology**

### **Participants**

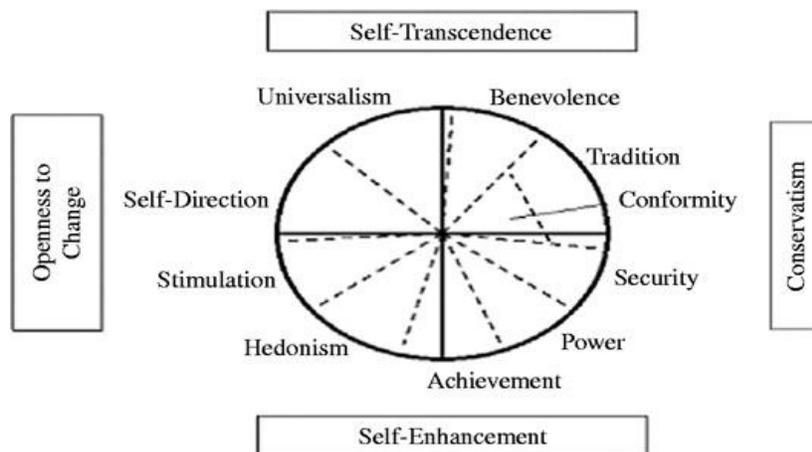
Undergraduate college students (total  $n = 1,144$ ) of three majors (business  $n = 411$ , education  $n = 306$ , and educational management  $n = 427$ ) from one college of Eastern culture ( $N = 569$ ) in North Vietnam participated in this study. The majority (81%) of the respondents was female, aged 18- 25, prospective elementary and secondary teachers enrolled in teacher education programs.

### **Data Collection**

Using the back-translation method, the English version of the survey was translated into Vietnamese, by native bilingual speakers. Another native bilingual speaker then translated each version back into English and comparisons were made to the original English version. Modifications were made to each of the two versions to accurately reflect the conceptual meaning of the original English version. Participants were recruited through email. A database of participants was generated from one university education class and one business class email lists from Vietnam. The researchers emailed participants an invitation to complete a values survey, their age, gender, and major. Participants clicked on a link to access a secure website and completed the *The Portrait Values Questionnaire (PVQ)* in Vietnamese.

### **Data Source**

*The Portrait Values Questionnaire (PVQ)* (Schwartz, 1992) consists of 40 items designed to measure ten-value types that are ordered along two dimensions: 1) Openness to Change (Stimulation, Self-direction and Hedonism) vs. Conservatism (Tradition, and Security), and Self-Enhancement (Achievement, Power and Hedonism) vs. Self-Transcendence (Universalism and Benevolence). Adults respond to each item by answering *how much like you is this person?* On a six point Likert-type scale ranging from 1 (*not like me at all*) to 6 (*very much like me*). The items include 40 short verbal portraits, gender matched to the respondent. Each portrait describes a person's goals, desires or aspirations representing 1 of the 10 basic values.



**Figure 1.** Portrait Values Structural Relations (Schwartz, 1992)

### Empirical Model

The conceptual framework for this study was synthesized from a constructivist perspective using the theoretical and empirical literature of storytelling, resilience, values and culture. Schwartz's (1992) complex theoretical model which is comprised in various iterations of his Portrait Values Questionnaire (PVQ) is one of the most widely used and researched measures in the world. It allows researchers to study values on both the cultural and individual levels, including individual differences in value priorities and their effects on attitudes and behavior. His theory on the structure of human values refers to culture-specific universal aspects. Values have been found to be significantly related to learning approaches with the value preference of self-determination related to creative, deeper learning/teaching approaches such as storytelling (Lietz & Matthews, 2010; McDruy & Alterio, 2002; Tarabashkina & Lietz, 2011; Yeung, Craven, & Kaur, 2014). Iyer (2013) confirmed that individuals' value preferences are related to the types of stories they like to experience. Numerous qualitative studies (Duke, Lazarus, & Fivush, 2008; Frude & Killick, 2011; Narra-Tumma & Claudius, 2013) quantitative studies, (Nguyen et al., 2016; Nguyen et al., 2015a; Nguyen et al., 2015b) have shown the important role of culturally responsive storytelling and values in promoting resilience.

### Findings

Participants were surveyed about values preference. There were was one predictor variable (college major) and one outcome variable (values). Investigated were the relative strengths of each of the three college majors n predicting values .preferences Based on previous empirical findings, three research questions were proposed:

1. Were there significant differences between three college major groups on values?
2. How do the hierarchy of values compare among Eastern culture adolescents, and education majors compare to Western culture education majors? .
3. What are the implications of the results for teaching values and resilience with storytelling and literary analysis?

**Table 1** DESCRIPTIVE STATISTICS OF FACTORS BY MAJOR

	Business n=411		Education n=306		Educational Management n=427		F	α
	M	SD	M	SD	M	SD		
Universalism	4.55 <sup>1</sup>	.72	4.39	.74	3.75 <sup>3</sup>	1.26	80.16	.80
Self-Direction	4.32	.80	4.08 <sup>1</sup>	.79	3.52 <sup>2</sup>	1.25	71.99	.71
Stimulation	3.44 <sup>1,2</sup>	.93	3.22 <sup>3</sup>	.92	3.23	.92	7.34	.50
Hedonism	4.89 <sup>1,2</sup>	.78	4.69 <sup>1,3</sup>	.91	3.93 <sup>2,3</sup>	1.34	97.10	.46
Achievement	4.09 <sup>1,2</sup>	.92	3.80 <sup>1,3</sup>	1.00	3.60 <sup>2,3</sup>	1.13	24.92	.74
Power	3.69 <sup>1,2</sup>	.90	3.07 <sup>3</sup>	.95	3.14 <sup>3</sup>	1.01	50.55	.45
Security	4.37 <sup>1,2</sup>	.73	4.13 <sup>1,3</sup>	.81	3.60 <sup>2,3</sup>	1.30	65.77	.71
Conformity	4.44 <sup>1</sup>	.75	4.45 <sup>1</sup>	.79	3.90 <sup>2,3</sup>	1.13	48.64	.59
Tradition	3.42	.82	3.58 <sup>1</sup>	.78	3.31 <sup>2</sup>	.90	9.34	.30
Benevolence	4.33 <sup>1</sup>	.76	4.28 <sup>1</sup>	.79	3.73 <sup>2,3</sup>	1.16	50.87	.67

Note. Pairwise differences ( $p < .001$ ) are noted by the following superscripts. <sup>1</sup> differs from Educational Management major, <sup>2</sup> differs from Education major, and <sup>3</sup> differs from Business major.

The mean rankings of 10 value preferences based on the Schwartz’s model were calculated from three college majors: business, education, and educational management. The results are shown in Table 1. The results show that generally all three majors highly prefer conformity, universalism, benevolence in contrast to power and stimulation, which is expected for a collectivist, Eastern culture and congruent with recent studies (Ha, Lout, & Rozycka-Tran, 2015; Nguyen et. al, 2016) . However, the highest ranked value preference for all three majors was hedonism which is more expected for an individualist, Western culture. All three majors favored lesser the conservative value of tradition which is highly valued by Eastern culture parents which is consistent with the most recent study of Vietnamese adults (Ha, Lout, & Rozycka-Tran, 2015). Younger college students are generally found to be more liberal than their parents. All three majors preferred moderately self-direction, an openness to change value found to more preferred by individualistic, Western cultures (Ha, Lout, & Rozycka-Tran, 2015; Nguyen et. al, 2016)

To test for differences between college majors analyses of variances (ANOVA) were conducted. The Tukey-HSD, post hoc procedure ( $p < .05$ ) was employed to examine all possible pairwise differences.. Given the large number of ANOVA tests, the p level required to reject the null hypothesis was set at  $p < .001$  for each comparison (see Table 1). Specifically, there were significant differences across the three college majors on all values. Business majors prefer the openness to change values of hedonism and stimulation more than education and education management majors.(hedonism:  $M = 4.89$ ,  $M = 4.69$ ,  $M = 3.93$ ,  $p < .001$ ). Business majors prefer the conservative values of achievement, power and security more than education and educational management majors (achievement:  $M = 4.09$ ,  $M = 4.69$ ,  $M = 3.80$ ,  $p < .001$ ; power:  $M = 3.69$ ,  $M = 3.07$ ,  $M = 3.14$ ,  $p < .001$ .; security:  $M = 4.37$ ,  $M = 4.13$ ,  $M = 3.60$ ,  $p < .001$ ).

An analysis of the hierarchy of values was conducted by comparing findings from three studies. Results of a study (Ha, Lout, Rozycka-Tran, 2015) of Eastern culture-Vietnamese adolescents was compared to the present study (Nguyen, Stanley, Hoang, Stanley, 2017) of Eastern culture - Vietnamese education majors, and with a study (Nguyen et al., 2016) of Western culture-American and German education majors. All values were ranked in order of highest to lowest mean rankings for each group. The hierarchy of values of Vietnamese adolescents, Vietnamese education majors, and American and German education majors is presented in Table 2. As can be seen there are similarities and differences in the values of Eastern versus Western culture education majors. Both Easterners' and Westerners' value hedonism, benevolence and universalism the most, power, tradition and stimulation the least. Westerners' value self-direction highly which is characteristic of individualistic cultures. Easterners' highly valued hedonism, a preference for openness to change rather than conservatism. Ha, Lout, and Rozycka-Tran (2015) stated that because of globalization and the influence of internet and television, young people of Eastern culture are becoming less traditional, less self-sacrificing for the benefit of the group and more open minded, and more motivated for self-enhancement like Westerners. Interestingly, Eastern adolescents hierarchy of values preferences have a higher agreement with Westerners' than Easterners. Ha, Lout, and Rozycka-Tran (2015) and Nihan, (2016) both observed that the values of young people in Vietnam are changing rapidly, often unsettling parents and educators. The hierarchy of value preferences for Vietnamese adolescents and education majors are similarly characterized as trending toward individualistic, openness to change values. However, Ha, Lout, and Rozycka-Tran, (2015) found the general population of Vietnamese adults to prefer values of collective conservatism more so than their children. It is challenging to balance a community culture which respects others and the demands of global development that promote individual success and power. It is not surprising the trend for Vietnamese educators to want to improve students living values of respect and social responsibility. (Nhan, 2016). The transmission of values by educators and parents to help adolescents be resilient in a changing time of conflict and globalization is also concern of Westerners (Children's Defense Fund (2014; Nguyen et al. 2015b).

**Table 2** HIEARCHY OF VALUES COMPARISON: ADOLESCENTS, COLLEGE STUDENTS AND EASTERN VERSUS WESTERN CULTURES

Level	Rank	College Education Majors		
		Adolescents <sup>1</sup> Eastern n = 472	Eastern <sup>2</sup> n = 306	Western <sup>3</sup> n = 276
High	1	Universalism	Hedonism	Benevolence
	2	Benevolence	Conformity	Self-Direction
	3	Conformity	Universalism	Universalism
	4	Self-Direction	Benevolence	Hedonism
Moderate	5	Security	Security	Security
	6	Hedonism	Self-Direction	Conformity
	7	Achievement	Achievement	Achievement
Low	8	Tradition	Tradition	Stimulation
	9	Stimulation	Stimulation	Tradition
	10	Power	Power	Power

Results Sources: <sup>1</sup>(Ha, Lout, & Rozycka-Tran, p. 294, 2015), <sup>2</sup>(Nguyen et al., p. 7, 2016), and <sup>3</sup>(Nguyen, Stanley, Hoang, Stanley, 2017)

## Conclusion

Three research questions guided this study. One, were there significant differences between three Vietnamese college major groups: business, education and educational management on values? All three majors highly preferred conformity, universalism, benevolence in contrast to power and stimulation, which is expected for a collectivist, Eastern culture. The highest ranked value preference for all three majors was hedonism which is more expected for an individualist, Western culture. All three majors favored lesser the conservative value of tradition which is highly valued by Eastern culture parents. Research question two, how do the hierarchy of values compare among Eastern culture adolescents, and education majors compare to Western culture education majors? . Both Easterner's and Westerner's value hedonism, benevolence and universalism the most, power, tradition and stimulation the least. Westerner's value self-direction highly which is characteristic of individualistic cultures. Easterner's highly valued hedonism, a preference for openness to change rather than conservatism. Young people of Eastern culture are becoming less traditional, less self-sacrificing for the benefit of the group and more open minded, and more motivated for self-enhancement like Westerners. Three, what are the implications of the results for teaching values and resilience with storytelling and literary analysis? Research question two, how do the hierarchy of values compare among Eastern culture adolescents, and education majors compare to Western culture education majors? Both Easterner's and Westerner's value hedonism, benevolence and universalism the most, power, tradition and stimulation the least. Westerner's value self-direction highly which is characteristic of individualistic cultures. Easterner's highly valued hedonism, a preference for openness to change rather than conservatism. Young people of Eastern culture are becoming less traditional, less self-sacrificing for the benefit of the group and more open minded, and more motivated for self-enhancement like Westerners. Three, what are the implications of the results for teaching values and resilience with storytelling and literary analysis?

The results provide insights for educators and parents approaching the challenge of teaching adolescents' values and resilience in the face of globalization. Can educators of values have it both ways? That is, is it possible to teach the Eastern value of respecting parents and community and also teach the Western values of individualism and self-reliance? The authors' previous research (Nguyen et al, 2016; suggested that Eastern and Western values can be balanced and developed by teaching American and Vietnamese educators how to teach adolescents storytelling and the literary analysis of novels for fostering the development of values and resilience. Results showed that storytelling and resilience were partially mediated by values. The findings indicated that prospective teachers who reported having significant childhood experiences of storytelling, and prefer openness to change values such as benevolence, self-direction, and stimulation perceive recalling, or telling stories more often for improving resilience. Research (Nguyen et al, 2015) indicated Vietnamese youth are becoming more individualistic and prefer openness to change values, therefore are likely to benefit from a student-centered approach like storytelling, Eastern culture stories of resilience focus on how an individual or character sacrificed for the group, particularly the family. Western culture stories of resilience focus on the individuals' overcoming challenges for

achieving personal success. Preliminary research (Nguyen & Stanley, 2017) suggested that literary analysis of novels coupled with discussion and storytelling show promise for teaching adolescents values for resilience. They developed a narrative resilience character rating scale for literary analysis informed by research. Recent research (Nguyen et al., 2015) identified five protective factors for resilience: (1) social competence, (2) problem-solving skills, (3) autonomy, (4) sense of purpose, and (5) use of storytelling. In clinical practice at an art and poetry therapy center as well as in the classroom, showed adolescents these qualities of resilience in their own lives and the fictional lives of characters in books. In this approach educators through active learning transmit to adolescents the value of appreciating the relationship of literature to social life. The literary analysis approach advocated here has theoretical and empirical support from the sociolinguistic and narrative body of work known as reader-response theory, discourse analysis, and bibliotherapy. It is a social dialogue between an author of a text (novel, story, poem or song), a reader, and a teacher for the purpose of exploring values and developing resilience. It is an interaction of personal storytelling with literary characters' storytelling. There are compelling reasons, informed by the research (Nguyen et al., 2015a & b) for educators to consider this approach. Since ancient times, stories have been shared in every culture as a means to educate, entertain, preserve culture, and instill knowledge, values and morals. Storytelling affirms students' cultural identities by encouraging them to express and validate what they already know. Values have been found to be significantly related to learning approaches with the value preference of self-determination related to creative, deeper learning/teaching approaches like storytelling. Numerous qualitative and quantitative studies have shown the important role of storytelling and values in promoting resilience.

The current research significantly contributes to the practical real world in a number of ways. First, significant differences of values' perspective between Western and Eastern cultures, between adults and adolescents and the influence of globalization on values for resilience found in this study will help researchers, educators and parents to be aware of the fact that storytelling and literary analysis should be better understood. Understanding the role of storytelling and literary analysis in transmitting values and enhancing resilience will help parents to make time to do more storytelling for their children at home. This also helps teachers in Eastern and Western cultures to understand why they might use storytelling more effectively. This also fosters researchers/educators to find methods to make storytelling and the reading of literature more compelling and to use more effectively at schools and in the family.

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# Equity and Innovation: Teaching for Talent Development

Jeanne L. Paynter

Curriculum and Instruction  
Graduate and Professional Studies  
McDaniel College, USA  
jpaynter@mcdaniel.edu

## Abstract

Current research that shows even our best K-12 schools may not be preparing students for the challenges of the 21<sup>st</sup> century global economy (Hargreaves & Shirley, 2012; Ripley, 2013; Wagner, 2008, 2012; Zhao, 2012). The Global Education Reform Movement with its emphases on standardization, accountability, and testing has left many of our students disengaged, unmotivated and underachieving (Robinson & Aronica, 2015; Sahlberg, 2015). The most serious crises occur among poor and minority students with potential for high achievement but little opportunity to develop it (Plucker, Hardesty & Borroughs, 2013; Tough, 2012, 2016).

The report *Talent on the Sidelines: Excellence Gaps and the Persistent Talent Underclass* identified a national crisis: an “excellence gap,” which denotes a persistent achievement gap that exists at the higher levels of academic performance (Plucker, Hardesty, & Borroughs, 2013). They conclude that clearly different approaches are needed to develop talent to advanced levels in order for all students to reach their true potentials. “What we urgently need is a new engine of economic growth... and there is general agreement as to what that new economy must be based on: innovation” (Wagner, 2012, p. 2).

## A New Approach: Talent-targeted Teaching and Learning

How can we design engaging and motivating curriculum, instruction, and assessment in order to equitably educate future innovators for success in the new economy? One promising new approach is *Talent-Targeted Teaching and Learning*, a brain-based model for talent development that fosters students’ talent aptitudes for content expertise, metacognition, and creative problem solving.

All of us have talent potential, capacities or aptitudes that can be developed (Duckworth, 2016). An *aptitude* is an innate or acquired capacity, a fitness or inclination (Merriam-Webster, n.d.). The use of “aptitude” as a synonym for talent captures its dynamic nature. In *Talent-Targeted Teaching and Learning*, teachers and students set “talent development goals” which align explicitly targeted talent aptitudes with content standards in English language arts, mathematics, social studies, and the arts.

Using the *Talent-Targeted Teaching and Learning* approach, we expect students to achieve the required standards but also to work toward long-range aims for talent development. The learning experiences and performance assessments explicitly target the development of specific aptitudes such as *creativity, insight, persistence* or *logical*

reasoning which undergird student engagement, motivation, and achievement (Figure 1).

Talent Development Goals	
<b>Teacher-Created</b>	Use <b>creativity</b> to identify a topic of interest and communicate at least three different perspectives and corresponding perceptions on that topic (Talent Program Solutions, 2016).
<b>Student-Directed</b>	I demonstrate <b>creativity</b> through new or unusual ideas that are imaginative or inventive.

Figure 1. Teacher and Student Talent Goals Aligned with English Language Arts Standard.

### The Design for Innovation Framework

The Talent-Targeted Teaching and Learning Models in elementary and secondary-level STEM and the humanities integrate research-based instructional design principles and essential strategies that are transferrable across the curriculum. They explicitly integrate the *Design for Innovation Framework*, 15 evidence-based instructional design principles (Figure 2). Each principle targets authentic processes designed to develop future innovators, such as “structure learning around open-ended problems,” “challenge critical and creative thinking” and “design authentic performances for real audiences” (Talent Program Solutions, 2016). The STEM and humanities studies demonstrate key essential strategies for talent development such as arts integration, concept development, and personalization of standards-based curriculum using local issues and community resources. Students develop a sense of purpose as they see that their efforts can make a difference and that they have a role, starting in their local community, in making the world a better place.

Content Design Principle: <i>Engage Differing Perspectives</i>	
	<p><b>Perspective</b> can be defined as a point of view, viewpoint, position, stance, stand, or attitude. Lessons that provide opportunities for students to engage in differing perspectives develop <i>flexibility</i>, one of the four <i>creative thinking</i> abilities (fluency, flexibility, originality and elaboration). E. Paul Torrance, known as the “Father of Modern Creativity” derived the four creative thinking abilities from studying the real-life creative achievements of famous scientists and inventors as well as from examples of “everyday creativity.” He maintained that creative thinking abilities can be improved through “creative teaching.”</p> <p><b>Innovators</b> generate new ideas and solve problems by taking different perspectives. Looking at the familiar from new angles enables us to “Think Different,” as states the slogan coined by Apple’s innovative founder, Steve Jobs.</p> <p><b>Torrance, E.P., &amp; Myers, R.E. (1970). <i>Creative learning and teaching</i>. New York, NY: Dodd, Mead.</b></p> <p><b>Hebert, T., Cramond, B., Neumeister, K., Millar, G., &amp; Silvian A. (2002). <i>E. Paul Torrance: His life, legacy, and accomplishments</i>. Storrs, CT: National Research Center on the Gifted and Talented.</b></p> <p><b>Dyer, J., Gregersen, H. &amp; Christensen, C.M. (2011). <i>The innovator’s DNA: Mastering the five skills of disruptive innovators</i>. Boston, MA: Harvard Business Review Press.</b></p>

Figure 2. Example of the Evidence-based Design for Innovation Framework Principles.

## Authentic and Formative Assessment

The Talent-Targeted Teaching and Learning Studies use authentic performance tasks to assess students' talent development and mastery of the content standards. Product-based Learning (PBL) is key to fostering student autonomy, engagement, and content mastery (Zhao, 2012). Teachers assess students' growth using a *Talent Development Continuum* rubric (Figure 3). Students use corresponding rubrics to self-assess, reflect, and record their progress in their Talent Development portfolios. The Talent Development rubrics define the learning progressions for each talent aptitude, thus acting as formative assessments for future instruction.

<b>Talent Development Continuum for Creativity</b>		
<b>Teacher Rubric: Based on the talent development tasks in this lesson module, the student</b>		
<b>Emerging</b>	<b>Progressing</b>	<b>Advancing</b>
Demonstrates typical ideas; makes literal connections.	Demonstrates some divergent thinking; makes appropriate, if expected, connections.	Demonstrates divergent thinking through unusual or clever ideas; makes unexpected or imaginative connections.
<b>Student Rubric: My work on the talent development tasks in this lesson module shows that</b>		
<b>Emerging</b>	<b>Progressing</b>	<b>Advancing</b>
I sometimes think of new ideas and how things could be improved. I prefer to follow a model or pattern that already exists.	I think of ideas for new projects and can imagine how things could be improved. I sometimes put these new ideas into practice.	I enjoy thinking of many, different and unusual ideas. I often imagine what could be and discover original ideas for new projects or how to improve things.

**Figure 3.** Rubric for Learning Progressions in Creativity Aptitude, Teacher and Student Versions.

## Challenging Every Student

Creating and assessing talent development goals personalizes instruction and develops a growth mindset (Dweck, 2006). The Talent-Targeted Teaching and Learning Model can be used with gifted students to advance their identified talents, in grade-level groups to challenge talents of progressing students, and with at risk students as a catalyst for identifying emerging talents. All students are more motivated to face tough challenges because their aptitudes and interests are engaged. The model recognizes a broad range of talents and presents a continuum of growth so that students have clear targets for deliberate practice and improvement (Duckworth, 2016).

Teachers are enthusiastic about using the Talent-Targeted Teaching and Learning model. One fifth grade teacher in an inner city school found that one of the most valuable aspects was having the language of the talent aptitudes for the students to internalize their higher order thinking. Students reported that they had a new language that “made them feel challenged” and that “gave new meaning to their lives.” They came to use talent aptitude terms like *creativity* and *empathy* with ease. Students used the Talent Development Continuum rubrics to self-assess their progress and were able to explain why they chose the levels of *emerging*, *progressing*, or *advancing* in each talent

aptitude. “The lessons were different. The kids were into it” (A. Lannigan, personal communication, January 31, 2017).

Students find that Talent-Targeted Teaching and Learning is engaging and empowering. They reflect on their progress in each lesson module’s targeted talent aptitudes. For example, the targeted aptitudes in one *Perspectives in Art and Culture* humanities task are *curiosity*, *persistence*, and *metacognition* (Talent Program Solutions, 2016). One inner city fifth grade student, who is an above grade level reader but who is not identified for the school’s gifted program, wrote in her reflection: I was interested because we got to use art to express our opinions. I was very motivated to make a point and show how we can change. I learned that I was good at showing the real-world problems...I worked well with my photo subjects and I took the lead. I was a little bossy, so I could have been nicer. Metacognition was my strong point, and persistence needs to be developed.

Talent-Targeted Teaching and Learning engages and advances students’ talents in STEM and the humanities by aiming beyond content mastery to target the development of specific aptitudes essential for success in life and career. All students have opportunities to develop and progress so that *every child is challenged, every day* (TPS, 2016).

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# Assessing the Alignment of Curricula, Internships, Industry Certifications and Employer Perceptions to Job Standards

Marcia A. Mardis<sup>1</sup>, Jinxuan Ma<sup>2</sup>, Faye R. Jones<sup>3</sup> and Charles R. McClure<sup>4</sup>

College of Communication & Information  
 Florida State University, USA  
<sup>1</sup>mmardis@fsu.edu  
<sup>3</sup>fjones@fsu.edu  
<sup>4</sup>cmclure@lis.fsu.edu

School of Library and Information Management  
 Emporia State University, USA  
<sup>2</sup>jma4@emporia.edu

## Abstract

As part of the Florida Information Technology Career (FITC) Alliance, researchers assessed the high school-to-college pipeline and subsequent technology and computing education career pathways. Researchers examined and compared:

- curricula from participating institutions' information technology (IT), computer engineering (CE), computer science (CS), and information systems (IS) programs;
- job postings from two of the college campus career resource centers; reviewed internship posting from one university career center;
- IT industry certification standards; and
- IT employer interview data.

With these comparisons, researchers sought to document the extent to which select Florida institutions were preparing students for college and career in IT and related fields. In the study reported here, the researchers focused on the alignment between two and four-year programs and employer needs.

**Table 6.** Reviewed Syllabi by Institution and Program (N=245)

Institution	Program	Syllabi (n)
<b>A</b>	Information Technology	26
<b>A</b>	BA - Computer Science	29
<b>B</b>	Computer Science	15
<b>B</b>	Information Technology	15
<b>A-B</b>	Computer Engineering	21
<b>B</b>	Information Science	14
<b>C</b>	Computer Information Technology	31
<b>C</b>	Networking Systems Technology	50
<b>C</b>	Information Technology Management	24
<b>C</b>	Computer Systems Networking	20
Total		245

The researchers began by identifying academic competencies listed in the syllabi from courses at participating state colleges and universities. These competencies were drawn from the Florida Department of Education (FLDOE) Information Technology standards

for both secondary and post-secondary education; Association for Computing Machinery (ACM)/Institute of Electrical and Electronic Engineering (IEEE) computing standards for Information Technology (2008), Computer Science (2013), and Computer Engineering (2004); and ACM and Information Systems Association (IAS) standards for Information Systems (2010). The research team analyzed a total of 245 syllabi from 10 programs, as illustrated in Table 1.

The researchers used the same competencies to examine job and internship postings extracted from university career centers. After removing duplicate postings, the researchers analyzed 134 unique job postings and 82 unique internship postings. The job posting and internship analyses are depicted in Table 2.

**Table 7.** Job and Internship Postings by Institution and Program Area

Institution	Program Area	Job (n)	Internship (n)
<b>A</b>	Computer Engineering	82	30
<b>A</b>	Computer Science	126	73
<b>A</b>	Information Systems	33	17
<b>A</b>	Information Technology	66	48
<b>C</b>	Combined Networking	73	0
	Information Technology Management		
	Computer Systems Networking		
<b>Totals</b>		<b>380</b>	<b>168</b>

The final data set also included data from interviews with 16 IT employers. After data were recorded and transcribed, researchers coded the transcripts for employer-identified competencies. The codebook derived from the ACM/IEEE IT Body of Knowledge framework augmented with high-frequency competencies that emerged from the quantitative data. The competency frequencies from the interviews were then compared to the competencies derived from the job and internship posting analyses as well as those expressed in syllabi.

From these analyses, researchers concluded that the two-year and four-year programs under study imparted key technical competencies required by FLDOE Career and Technical Education (CTE) frameworks and ACM/IEEE IT curricula recommendations. These competencies were also required to prepare candidates to qualify for the high need IT jobs delineated by the Florida Board of Governors (BOG): Computer Network Architects, Computer Systems Analysts, Computer Programmers, Applications Software Developers, Systems Software Developers, and Graphic Designers (Florida Board of Governors, 2013).

However, the literature review, interview data analysis, regional job and internship posting analyses also suggested that applied skills such as critical thinking, problem solving, teamwork, and written and verbal communication were just as important for job success as technical skills.

Although applied skills were more difficult to detect in learning outcomes, determining the extent to which technical preparation programs foster these skills presents a fertile

area for further research. The specific role of high school programs in readying students for IT careers is also an area for additional investigation.

**Keywords:** STEM, technology, curricula, employers, internships, industry certifications

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# Teacher Efficacy as a Driving Force to the Democratization of Education

Evelyn Paris<sup>1</sup> and Michele Kubecka<sup>2</sup>

Faculty of Education  
York University, 2013-2017  
<sup>1</sup>eparis@edu.yorku.ca

Faculty of Education  
York University, 2014-2016  
<sup>2</sup>mkubecka@gmail.com

## Introduction

The big question of ownership of learning has been widely debated in the field of teacher education with scholars such as Deborah Meier, Ron Berger, Dylan William, Carol-Ann Tomlinson, and Alfie Kohn, for example, arguing for the democratization of education where students have more voice and choice in the process of learning. Under this broad topic come related questions: What is democratic teaching and learning? What is student-driven learning? Are they the same thing? What is the impact of student voice and choice in the classroom on student learning? What role does the teacher play when power is shared with students?

Based on our years of experience as classroom teachers where students were integral players in the decision-making processes around how and what was learned in our respective classrooms (one in elementary and one in secondary in a publicly funded Catholic school board in Ontario, Canada), our belief in the benefits of the democratic classroom on student learning, not to mention our perceived comfort level with its implementation, was high. Even though we were developing our classroom practices in different settings and at different time periods, each of us were defining for ourselves and with our students what a democratic classroom looked like, how it differed from the conventional classroom experience, how community and relationship building was fundamental to our practice, and what attitudes, skills, and knowledge were essential in its implementation. What we learned when we began collaborating with one another at the university level was that while we were working as classroom teachers in the public system, both of us had been operating in isolation, with little/no support from colleagues. We were the outlier, the renegade teacher who was experimenting with innovative instructional practices that we had heretofore had only read about in educational texts.

As educators we wanted to be agents of change and transform education by empowering students who were often tuned out, disconnected, struggling or simply complying and playing school to want more and to demand their voices be heard. We witnessed the powerful effects of inviting students to co-learn with us in a safe and caring learning community where the students' curiosity and questions and not content drove instruction thus resulting in deeper learning that was intrinsically motivated and ignited students' passion for learning. In this environment, the learning in community

mattered and was valued more than simply achieving grades. We were genuinely excited about the potential for students and teachers alike, but also knew that despite this real potential, this type of democratic teaching and learning was happening in classrooms few and far between.

We experienced, first hand, the transformative effect democratic teaching practices had on our students, both as learners and as citizens. As a result of our implementation of this teaching and learning approach, we were able to witness our students' levels of engagement increase in demonstrable ways, their critical thinking and interpersonal communication skills improve dramatically over time, we saw an increase in the number of students taking responsibility of their own learning resulting in better overall learning outcomes, and we experienced the benefits of creating a positive, collaborative, safe, and inclusive learning community, where all students were able to learn, grow, and thrive.

In order to break the inevitability of isolationism for future teachers who might be willing to attempt this teaching and learning approach, we were convinced that by modeling the democratic classroom at the faculty level we could embolden more teacher candidates to embrace this approach and bring it into their future practices in larger numbers than previously seen and not feel the burden of being the "few and far between" teachers who are willing to challenge the status quo. By seeing the benefits of the democratic classroom themselves as learners, our expectation was that teacher candidates would whole-heartedly want to implement this approach in their own teaching practices.

By sharing our journeys as instructors at a faculty of education in Toronto, Ontario, Canada, we will be disclosing our challenged assumptions, teacher candidate push-back, collegial pressures to conform, and how our co-dependence on one another served to buoy us forward against the resistance to change we encountered along the way. At the same time, our goal is to honour multiple perspectives on the issue, and create an opportunity for deep and rich learning for both our participants and us. skills deemed necessary to achieve learning that is relevant and meaningful to the learners.

### **Theoretical Framework**

According to our experiences and understandings, the term "democratic" has an underlying assumption that the classroom environment is made up of a collaborative, caring, community of learners, where multiple perspectives are honoured, and where participants are encouraged and expected to listen to one another with an open-to-learning stance. Within this environment, the instructional/pedagogical approach is a process by which decisions around the teaching and learning experience, from the classroom environment, curriculum and modes of instruction, to the number and types of assessments to be completed, are made in collaboration with students and the classroom teacher. In this context, students are not passive receptors of content; rather they are active participants in the co-construction of content and

When discussing the term "self efficacy" we are referring to the term as described by Albert Bandura as: "one's belief in one's ability to succeed in specific situations or accomplish a task. One's sense of **self-efficacy** can play a major role in how one approaches goals, tasks, and challenges." (<http://positivepsychology.org.uk/self-efficacy-definition-bandura-meaning/>) We understand the term to refer to those people who have a strong feeling of self confidence in their ability to complete a task, are willing to see new and challenging tasks as opportunities for growth and learning, are able to recover quickly from setbacks or failures, and are those who allow their interest and sense of commitment towards a task to grow as their experiences of success in the new task grows as well. (<https://www.verywell.com/what-is-self-efficacy-2795954>)

Albert Bandura names four sources of efficacy beliefs:

### **1. Mastery Experiences**

The first and foremost source of self-efficacy is through mastery experiences. However nothing is more powerful than having a direct experience of mastery to increase self-efficacy. Having a success, for example in mastering a task or controlling an environment, will build self-belief in that area whereas a failure will undermine that efficacy belief. To have a resilient sense of self-efficacy requires experience in overcoming obstacles through effort and perseverance.

### **2. Vicarious Experiences**

The second source of self-efficacy comes from our observation of people around us, especially people we consider as role models. Seeing people similar to ourselves succeed by their sustained effort raises our beliefs that we too possess the capabilities to master the activities needed for success in that area.

### **3. Verbal Persuasion**

Influential people in our lives such as parents, teachers, managers or coaches can strengthen our beliefs that we have what it takes to succeed. Being persuaded that we possess the capabilities to master certain activities means that we are more likely to put in the effort and sustain it when problems arise.

### **4. Emotional & Physiological States**

The state you're in will influence how you judge your self-efficacy. Depression, for example, can dampen confidence in our capabilities. Stress reactions or tension are interpreted as signs of vulnerability to poor performance whereas positive emotions can boost our confidence in our skills.

### **5. Imaginal Experiences**

Psychologist James Maddux has suggested a fifth route to self-efficacy through "imaginal experiences", the art of visualising yourself behaving effectively or successfully in a given situation. (<http://positivepsychology.org.uk/self-efficacy-definition-bandura-meaning/>)

Lastly, our understanding of teacher efficacy refers to Bandura's definition that states: "Teacher efficacy is a teacher's belief that he or she has the ability to influence student learning" (Bandura, 1997). Such teachers who believe they are capable of supporting student learning are more likely to implement new, high yield instructional strategies such as the democratic teaching and learning approach, and persist with them in the face of obstacles, than teachers with low efficacy. As well, high efficacy teachers produce higher student achievement, have a greater impact on the development of student self-regulation, and build student confidence to a greater extent than low efficacy teachers. (<http://sim.abel.yorku.ca/wp-content/uploads/2012/10/CIL-M-Three-Year-Summary-FINAL.pdf>)

Our auto-ethnographic study asks the question: How is teacher efficacy affected when teacher candidates engage in democratic learning cultures at the faculty level? Our goal is to share our experiences and "Aha" moments around the essence of teaching and learning within these types of progressive and responsive teaching cultures.

### **Methods**

In our positions as Course Directors and Practicum Facilitators at a Faculty of Education we discovered that teacher-directed teaching and learning was still the predominant mode of instruction, thus finding ourselves on the fringes in terms of our pedagogical approach to classroom instruction methods. We made a conscious decision to share "power" in our courses by promoting democratic learning experiences that focused on the process of learning and that honoured student voice and choice throughout the learning cycle.

We undertook the task of redesigning programs with the explicit purpose of transforming education at the faculty of education by modelling ourselves for our teacher candidates the progressive, democratic instructional strategies they were learning in their readings but not experiencing in their courses.

Our work reflects on the impact moving away from non-traditional teaching in favour of a more democratic approach has on the teacher candidates' learning and emerging teacher efficacy. Our non-traditional teaching methods honoured the process of learning within a learning community context, and put teacher candidates in the driver's seat of their learning while working collaboratively, instead of competitively, with peers.

In these progressive teaching and learning environments where learning did not follow a linear path but was seen as multilayered, inquiry based, and open-ended, the instructor was seen more as a mentor and facilitator working alongside the teacher candidate as a co-learner, rather than a lecturer whose purpose was to transmit knowledge by focusing on content. Our role was also to ensure the learning was integrated and purposeful, linked theory and practice, and promoted real-world competencies. Ultimately, we believed it was our responsibility to be change agents advocating for educational transformation.

More specifically in our pedagogical approach, we endeavoured to foster learning opportunities where we co-created with the teacher candidates not only the content of our courses of study, but the number and types of assessments they believed were necessary to complete in order to fully and authentically demonstrate their learning excellence. In these learning cultures (versus traditional grading cultures) where mistakes were seen as necessary, teacher candidates experienced the process of learning through the use of a variety of formative assessments (For and As). By receiving timely feedback on one's work from both the instructor and peers along the way in combination with self-reflection, there occurred a natural shift from valuing grades to valuing continual improvement while adopting a growth mindset.

To further inform our research we invited the teacher candidates to engage in two round discussions regarding our central research question. We chose the roundtable session format, which is, in our opinion, the most democratic in nature, in order to engage the participants in a conversation around feelings, observations, and reactions to the notion of the democratic teaching and learning approach and their feeling of self-efficacy in relation to their experiences. To uncover their thinking around their experiences in our classes we posed the following questions:

1. What do you think a democratic classroom looks, feels, sounds like? What are its salient features?
2. In your opinion, what are some skills, attitude, and knowledge that a "democratic teacher" would identify as essential to have in his/her pedagogical backpack?
3. How did your participation in this type of classroom impact your teaching practice, if at all?
4. Under what conditions could you see yourself implementing this type of teaching and learning approach?
5. What is your sense of self-efficacy as a practitioner of a democratic teaching and learning approach as a result of your experiences in this type of learning environment?

### **Initial Findings**

We discovered that there was a varying degree of comfort with this type of learning style at the faculty of education level. Teacher candidate participants revealed a range of reactions to their experiences as students in our classes. Some expressed a strong sense of teacher efficacy as a student in and practitioner of a democratic teaching and learning approach after their experiences, while others expressed discomfort and even anxiety in the role of student and teacher resulting in a feeling of low teacher efficacy when invited to experiment with this instructional approach in their practicum placements. Teacher candidates, whose self-efficacy was high with learning in a democratic fashion, expressed greater likelihood of implementing democratic instructional approaches within their own teaching. Teacher candidates who expressed a high sense of efficacy in the role of student and teacher of a democratic classroom we feel shared the greatest likelihood of using the democratic model of instruction in their future classrooms.

Teacher candidates also expressed that their sense of self efficacy around future implementation of democratic instructional practices increased when the teacher candidate's host teacher modelled these teaching and learning practices with success. More specifically, when the teacher candidates were able to witness the positive impact this approach had on student learning in the classroom setting, their level of teacher efficacy increased. Basically, it was not enough that they experienced it themselves as learners, but they had to "see it to believe it" with their own students. More questioning around the rationale for its implementation in our courses and pushback occurred when teacher candidates were not exposed to these methods in their practicum placements.

## **Discussion**

Our initial assumption that experiencing democratic instructional approaches in their course work at the faculty would be enough to entice teacher candidates to experiment and explore this kind of classroom culture with their own students in practicum. This research challenged this assumption because it reveals that for some the exposure was enough, and for others it was not. It also brought to light the potential effect of aligning practices between faculty course directors and practicum host teachers had on a teacher candidates' sense of teacher efficacy with progressive instructional strategies. This observation raises questions around how host teachers are selected and partnered with prospective teacher candidates. In certain instances, teacher candidates believed they affected the host teacher's attitudes and approaches to instruction as a result of their willingness to implement democratic teaching and learning strategies.

Our contribution is a revealing of what risk-taking looks like at the faculty level with respect to engaging in democratic teaching and learning and why self-efficacy or "believing in yourself " matters. Teacher efficacy is the driving force to democratizing education. We argue that if we want to transform the educational system to reflect principles of democratic teaching and learning, a greater emphasis on the development of teacher candidates' self-efficacy both in theory and practice are essential.

In conclusion, this auto-ethnographic research project sheds new and exciting light on the transformative power of engaging in this type of learning at the faculty of education, the need to provide opportunities to develop teacher candidates' self-efficacy, and raises further questions around the importance of practicum experiences aligning with instructional methods at faculties of education.

**Keywords:** democratic education, teacher efficacy, teacher education

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# Global Leadership Competency Development in Adult Education Graduate Programs

Arthur Ray McCrory

Adjunct Instructor, Office of Undergraduate Studies  
University of South Florida, USA  
amccrory@usf.edu

## Abstract

This paper presents the results of a multiple-case study describing the curricular and co-curricular practices to incorporate global leadership competencies in selected adult education graduate programs in the United States and Western Europe. In 2014, the Commission of Professors of Adult Education (CPAE) published updated Standards for Graduate Programs in Adult Education, which included two standards addressing globalization and leadership. The global leadership competencies described in this study are defined by Bird's (2013) framework of nested global leadership competencies. Faculty participants in the selected adult education graduate programs reported eleven curricular (within the classroom) themes as well as eleven co-curricular (programmatic) themes. The curricular themes included embedded discussions, writing exercises, selection of readings/texts, targeted assignments, presentations, teamwork, self-directed learning, online learning, personalized projects, use of guest speakers, and innovative use of technology. The co-curricular themes included developing a research agenda, providing specific courses, encouraging attendance at conferences, engaging in mentoring, accepting more international students, expanding study abroad opportunities, coordinating alumni support, offering professional development opportunities, encouraging volunteering/campus involvement, and increasing awareness at admissions.

**Keywords:** global leadership, curriculum development, program development

## Introduction

Graduates of adult education masters and doctoral programs are entering an increasingly globalized workforce and facing a multifaceted and dynamic work environment (O'Dell & Hwang, 2008). As a result, faculty in adult education graduate programs are increasingly being called upon to incorporate high quality global competency development initiatives into the training and curriculum of their student populations (Caligiuri, 2006). Merriam and Brockett (2007) discussed how graduate degrees in adult education are among the most practical—and adaptable—in all of higher education. Furthermore, Hoppe (2007) posited that adult learning theory may be a catalyst to boost global leadership competency development. Bolman and Deal (2008) discussed how graduate programs can provide a source for the new leaders required by these increasing challenges. Specifically, adult education graduate programs prepare students for careers in adult education fields such as business and industry trainers, higher education faculty, literacy education, independent training consultants, educational program writers and evaluators, individuals with special consulting skills

and interests, or community or organizational leadership positions (Merriam & Brockett, 2007).

The *Standards for Adult Education Graduate Programs*—originally published in 2008 by the Commission of Professors of Adult Education (CPAE) and revised in 2014—include, among others, both of the following standards: (a) the study of leadership, including theories or organizational leadership, administration and change; and (b) the analysis of globalization and international issues or perspectives in adult education (CPAE, 2014). With these standards in mind, this paper examined the curricular and co-curricular practices to develop global leadership competencies, as defined by Bird’s (2013) framework of nested global leadership competencies, reported by faculty participants in selected adult education graduate programs in the United States and Western Europe.

*Conceptual Framework.* Central to this study was the construct of global leadership competencies. Bird’s (2013) framework was used to explore the content domain of the research question. In this model, Bird systematically evaluated the existing literature and consolidated the semantic differences, arriving at 15 competencies—five within each of three broad categories: (a) business and organizational acumen, (b) managing people and relationships, and (c) managing self. By sorting and organizing the complex original list found in the literature of over 160 competencies down to 15, and ordering them into three broad categories, Bird’s (2013) framework of nested global leadership competencies incorporates multifaceted competencies spanning pre-dispositional, attitudinal, cognitive, behavioral, and knowledge aspects. See Table 1 for a visual representation of the conceptual model used in this study.

**Table 1:** Categories and Competencies of Bird’s (2013) Framework of Nested Global Leadership Competency Development

<b>Business and Organizational Acumen</b>	<b>Managing People and Relationships</b>	<b>Managing Self</b>
Vision and strategic thinking	Valuing people	Inquisitiveness
Leading change	Cross-cultural communication	Global mindset
Business savvy	Interpersonal skills	Flexibility
Organizational savvy	Teaming skills	Character
Managing communities	Empowering others	Resilience

The five competencies associated with the category *business and organizational acumen* include (a) vision and strategic thinking, (b) leading change, (c) business savvy, (d) organizational savvy, and (e) managing communities. *Vision and strategic thinking* describes the ability to understand and act in complex and strategic settings, including the development of a global vision for an organization and the development and implementation of strategic plans. *Business savvy* encompasses general business and technically-oriented knowledge, as well as the attitude of integrating entrepreneurialism and creativity into an organization. *Managing communities* centers on global leaders’ ability to succeed within the vast network of relationships developed through interactions of a global workforce, and includes the skills of spanning boundaries, influencing stakeholders, and accomplishing strategic objectives. *Organizational savvy* includes the ability to design organizational structures and processes. Finally, *leading*

*change* indicates a results-oriented competency derived from the application of all previous competencies.

The five competencies associated with the category *managing people and relationships* include (a) valuing people, (b) cross-cultural communication, (c) interpersonal skills, (d) teaming skills, and (e) empowering others. *Valuing people* describes the respect shown for people and their differences, a deep-level understanding of the emotions and motivations of others, and the creation and maintaining of trusting relationships.

*Interpersonal skills* consists of emotional intelligence (sensitivity, engagement, and self-awareness) and relationship management (influencing, listening, goal setting). *Cross-cultural communication* includes the mindfulness of a general cultural awareness and specific cognitive and behavioral skills in an intercultural context—including foreign language skills, negotiating, and communication skills. *Empowering others* addresses talents such as increasing self-efficacy within the relationship of direct reports, colleagues, and superiors, as well as the skills related to coaching, instructing, personal and professional development, and delegation of authority. Finally, *teaming skills* refer to effectively working in multicultural and global teams.

Finally, the five competencies associated with the grouping *managing self* include (a) resilience, (b) character, (c) inquisitiveness, (d) global mindset, and (e) flexibility. *Resilience* is characterized by the dimensions of optimism, hardiness, and stress-reduction, resourcefulness, and self-confidence. *Character* includes such traits as honesty, maturity, and diligence. *Inquisitiveness* refers to a willingness to be open to new ideas, experiences, and people. Additionally, humility refers to the trait of not letting pride or self-consciousness interfere with the learning process. *Global mindset* is a cognitive competency that reflects the complex melding of new perspectives, attitudes, and knowledge within a global context. It includes cognitive complexity and cosmopolitanism, including interest in and knowledge of the greater world. Finally, *flexibility* refers to both intellectual flexibility (a tolerance for ambiguity) and behavioral flexibility (a willingness to adapt behaviors to fit the demand of the situation).

## **Literature Review**

Global leadership has emerged from traditional literature studies with a growing collection of empirical research in its own right. Mendenhall and his colleagues (2013) collected a growing list of definitions for the nascent construct, and found only one agreement among all the definitions their study collected: “Global leadership is significantly different from domestic leadership due to the salience of the context—characteristics of the global context appear to exert greater influence than is the case for domestic contexts” (p. 494). There is a presumption among scholars that research in global leadership represents a complementary, though alternative line of leadership research (Osland, Bird, & Oddou, 2012). Osland and colleagues in *Advances in Global Leadership* reported a greater need for global knowledge, stronger communication across boundaries, heightened need for cultural understanding and diversity, and greater ambiguity surrounding decision making (Osland et al., 2012).

The identification of a core set of global leadership competencies has proven to be a difficult task, and researchers and practitioners alike have struggled not only with coming up with a comprehensive set, but also with organizing them into a useable framework (Bird & Osland, 2004). Twenty-seven publications were reviewed for this study, and eight were highlighted as attempts to provide an organizing framework or model for the 160+ global leadership competencies delineated throughout the literature. These include two literature reviews— Mendenhall and Osland's (2002) global leadership dimensions and Jokinen's (2005) integrated framework of global leadership competencies—as well as six models— Brake's (1997) global leadership triad, Rosen, Digh, Singer, & Philips' (2000) global literacies, Bird and Osland's (2004) pyramid model of global leadership, Peters and Gitsham's (2010) the global leader of tomorrow, Bird, Mendenhall, Stevens, & Oddou's (2010) content domain of intercultural competence in global leadership, and ultimately, Bird's (2013) framework of nested global leadership competencies. Altogether, over 160 competencies have been described by the literature reviewed for this study. Overlapping concepts, semantic differences, and categories which are qualitatively different fill the literature (Bird, 2013; Jokinen, 2005). Global leadership research is still reminiscent of the kind of literature which explores traits and lists found in the early stages of the field of domestic leadership (Osland, 2013). Gaps exist in global leadership process, development, and theory (Mendenhall, Osland, Bird, Oddou, & Maznevski, 2008; Mendenhall, Reiche, Bird, & Osland, 2012).

As a field of graduate study, adult education is characterized with a “distinctive body of knowledge that embraces theory, research, and practice relating to adult learners, adult educators, adult education and learning process programs, and organizations” (CPAE, 2014, p. 3). In 2012, the American Management Association (AMA) stated that in addition to academic careers in continuing education, postsecondary environments, cooperative extension, and adult basic education, among others; graduate students in adult education are also entering the global workforce in the areas of program development, workplace learning, nonprofit organizations, corporate training, and human resource development (AMA, 2012). In 2014, the Commission of Professors of Adult Education (CPAE) published revised *Standards for Graduate Programs in Adult Education*, suggesting “guidelines and standards for high quality planning, administration, and evaluation of adult education” (p. 3). These *Standards* describe four distinct sections: (a) administration, (b) organization of graduate study, (c) curriculum, and (d) faculty members. CPAE (2014) acknowledged, “Adult Education programs of study encompass a wide range of specialty areas and institutional contexts” (p. 4). For the purpose of this study, two of the nine standards are highlighted: (a) the study of leadership, including theories or organizational leadership, administration and change; and (b) an analysis of globalization and international issues or perspectives in adult education.

## **Methods**

This article reports findings from a qualitative, multiple case, phenomenological study. Seven cases—four in the United States and three in Western Europe—were purposively selected to increase an understanding of how the phenomenon of global leadership competency development is incorporated into the selected adult education

graduate programs. Two current faculty members from each institution were interviewed, for a total of 14 participants. An interview protocol was developed and vetted through a multi-level panel process incorporating peers and professionals in the fields of adult education, leadership development, and research and measurement.

The data collected were from multiple sources, including the semi-structured interviews, researcher field notes, reflective journals, and supporting documentation. Prior to the interviews, the researcher conducted an examination of available syllabi, mission statements, program descriptions, and other supporting documents which led to additional probing questions and deepened the researcher’s familiarity with the selected adult education programs.

The data were mined for meaning in a detailed line-by-line analysis of the information (Braun & Clarke, 2006; Strauss & Corbin, 1998; Tracy, 2013). Both within-case analysis and between-case analysis were conducted to answer the research question. The emergent themes were a direct reflection of the interview questions and the research questions, and the labeling of the themes were modified and relabeled as the research progressed through the process of constant comparison. Rich, thick description of notes and all data were documented to strengthen all coding decisions. All data was validated utilizing triangulation, member checks, audit trails, and multi-layered peer reviews.

## Findings

The research question addressed the practices incorporating the 15 competencies identified by Byrd’s (2013) framework of nested global leadership competencies in the seven selected adult education graduate programs in the United States and Western Europe. Eleven themes describing the most commonly discussed practices emerged in two categories each: (a) curricular (within the classroom) practices and (b) co-curricular (programmatic) practices. Table 2 presents an overview of the findings which emerged from the data.

**Table 2:** Overview of Emergent Themes Describing Practices from Curricular and Co-curricular Categories Presented in Rank Order of Word Count(s)

<b>Curricular (In Classroom) Themes</b>	<b>Co-curricular (Programmatic) Themes</b>
Embedded discussions	Develop research agenda
Writing exercises	Provide specific courses
Selection of readings/texts	Encourage attendance at conferences
Targeted assignments	Engage in mentoring/advising/shadowing
Presentations	Accept more international students
Teamwork	Expand study abroad opportunities
Self-directed learning	Promote learning communities
Online learning	Coordinate alumni support
Personalized projects	Offer professional development opportunities
Use of guest speakers	Encourage volunteering/campus involvement
Innovative use of technology	Awareness at admissions

**Curricular themes.** This section describes the 11 curricular (within the classroom) themes identified from the data.

*Embedded discussions.* Each of the 14 participants reported they incorporate the competencies under inquiry into the classroom discussion. As one participant said, “The key to awareness is discourse,” and the participants in this study all embed these competencies into their curriculum through conversation and dialogue. Through discussions about a global society or learning teaching strategies to empower students, the participants infuse challenging dialogues related to the issues important to the field of adult education at all levels of graduate study. A discussion about race may lead to talking about other groups in society, which leads to awareness about the Latino culture or the gay and lesbian community; and people in the classes who are part of those communities may contribute specific examples to that dialogue. Social justice, disenfranchised populations, international travel, cultural competence, ethical dilemmas are all examples which emerged from the data as topics of conversation throughout the curriculum. Raising awareness of issues and keeping them open for discussion was the most common practice identified in the data for the development of the global leadership competencies under inquiry.

*Writing exercises.* Writing is a fundamental skill for any graduate student. Taking the form of dissertations, book reviews, book chapters, grant proposals, conference proposals, articles, and papers for class, the participants in this study use writing as a way to deepen the student’s levels of knowledge and critical thinking. One participant uses writing as a way of empowering her students, designing assigned paper requirements around conference guidelines. She offers as much feedback as possible, pushes her students to produce the best manuscript possible, then allows them the option to submit it for publication or not. Many of the participants described the sense of pride they feel when a student’s work has been accepted for publication. One participant added she firmly believes a lot of knowledge is lost when professors do not encourage their students to write and publish and access that system.

*Selection of readings/texts.* Development of most of the global leadership competencies discussed in this study is represented in the classroom through the selection of texts. The introduction of international research articles was a common theme to help students expand global mindset. Case studies of ethical dilemmas help develop character. Stories of social justice initiatives facilitate dialogue about empowerment and valuing others. Evaluations and program planning initiatives highlight the need for increased business and organizational savvy. The selection of texts is a way to stay relevant and up-to-date on the issues, as well as allow for the kind of flexibility in dialogue which keeps the curriculum fresh and enlivening.

*Targeted assignments.* The participants in this study have much leeway with regards to the assignments they can require in their classroom. Regarding the competency of managing communities, one participant described an assignment in which her students had to select a city or town of their choice, then use Schroeder’s Typology to locate five examples of adult education institutions within each category. Discussing global mindset, another participant described an exercise where students bring in a cultural quiz of at least 10 questions related to their cultural heritage. The entire class then takes

the quizzes and reviews them in class: It's a great ice-breaker exercise and expands cultural competency as well." A third example is one participant's use of Rokeach's instrumental and terminal values survey to encourage discussion of values and self-reflection. Discussing vision and strategic thinking, yet another participant described all of her assignments as a program with one assignment leading to another. For example, in a Learning Theory course, the first assignment is about the literature review. Grading the assignment, she can tell who learned the objectives well and who did not, and she can give suggestions. The next assignment is to identify an adult education program related to the theory. Again, if the student was not able to do the second assignment correctly, she knows they did not learn from her feedback. Using this step-by-step progressive method, she can return to the point in time when there was a gap in the student's learning. For the final assignment, the students bring all they have learned together into a final demonstration to verify their understanding of how the theory works.

*Presentations.* Presentations emerged as one of the most common practices by the majority of the participants in the study, especially for assessment purposes. The purpose is to demonstrate competency in whatever subject matter is being taught. One participant provides a guide called "Fifteen Things I'd Like to See in a Good Presentation." When a student conducts a presentation, everyone in the class anonymously completes this guide. If the student was unsuccessful, another chance is offered. This is designed to build competence and confidence: "Walking the talk with adult education."

*Teamwork.* The development of teaming skills emerged as one of the most common practices in classroom management. One participant stated: "The students do it all the time, but they do not always like it." Adult students are often reticent to work with others and to put any kind of control over their own grade and learning experience into the hands of someone else. Yet, examples of students forming teams to accomplish some part of the curricular requirement permeated the data. One participant from Europe said she did not like those free conversations where everyone says just bits and pieces of some topic. She requires students to go deeply through the material and identify the key points, discussing and presenting each of the key points to the team: "This has been very fruitful and the students always produce fascinating results."

*Self-directed learning.* A number of the participants discussed the idea of choice and personal selections with regards to all aspects of the curriculum. Research projects, presentations, conference attendance, internships, book reviews, and individualized or group work all emerged as ways in which the student is given power to select their own areas of interest or research. One participant discussed his willingness to negotiate assessment—essay questions, multiple-choice, short answer, long answer, oral presentations. His only concern was that the learning was taking place. Another participant talked about passion, and how students must be able to choose their own research agendas in order to break through the natural barriers that occur during the graduate school process.

*Online learning.* Not all of the participants in the study fully supported the trend towards online learning, but all of them acknowledged the reality that this is where much of the learning in the field of adult education is now taking place. Challenges and successes were discussed in the transition to online learning. Some of the professors teach exclusively online, while others are moving towards that learning environment. One participant commented that younger faculty with stronger skills in developing effective online learning experiences are required in many adult education programs. A participant in Italy discussed the hesitance her students portray toward trying to communicate this way, since it is so different from the traditional teacher-centered approach they are used to. Another participant talked about the use of student moderators as a technique to help build leadership and empowerment within the online platform.

*Personalized projects.* Many of the participants discussed projects as a way in which to take the curriculum outside the classroom. Student-led projects such as youth development, literacy program development, and pro-choice awareness campaigns are examples of students taking what they have learned and applying it to the field of adult education beyond the institution of higher education. Often, these projects are completed in conjunction with Internships, but sometimes they are simply assignments within a given class. One participant discussed a project in the Adult Learning Theories course where she asked her students to deeply explore an adult education institutions and investigate which theories and frameworks were used to design the program in order to better understand how theory can be turned into practical contexts. While most students chose local organizations, one student chose an institution in Australia. The student contacted the leaders of that organization, interviewed them, and later designed a program of his own based on the knowledge he gained from the Australian model. The leaders in Australia were so happy with the experience, they wanted to collaborate with him on future projects. Another example was provided by a participant facilitating a course focused on Organizational Community Processes. She put the class into groups, whose projects were to create an organization designed to solve some problem in the community. The students had to identify the problem and the solution and build a business plan in which to form this organization. It must include the vision, detailed plans, and funding requirements in order to prepare for writing a grant. The focus on strategic planning developed multiple global leadership competencies, such as managing communities, vision and strategic thinking, teaming skills, business savvy, organizational savvy, flexibility, character, cross-cultural communication, and interpersonal skills.

*Use of guest speakers.* Guest speakers are one way to bring the practical world of adult education into the classroom. One participant has used guest lecturers to talk about prisoner education as well as mental illness issues in the community: "These speakers have so much more to add to the discussion than I could alone as the instructor." She encourages involvement with the guest speakers in order to expand networking skills and research interests. In Germany, a participant spoke about guest speakers he brought into the classroom from the Volkshochschule (adult education center) to discuss program planning, as well as someone from a big car manufacturing enterprise.

A participant in Ireland spoke about how his students take control of a given topic by bringing in guest speakers of their own, elucidating on a given topic for which they were responsible to present.

*Innovative use of technology.* The use of technology is embedded throughout the curriculum. In an online context, the traditional method is to simply post on the discussion board and respond to two or three other students. In order to regain a personal touch, one participant requires her students to use the voice control to respond to their peers, as well as use blogs to summarize accomplishments each month and discuss the plan for the coming month. She admitted that many students resist using these tools. When the students ask why they have to use so many technology tools in a non-technology course, she explains to them the ways in which these tools are used in the workforce. Technology is embedded everywhere. Another participant provides short video tutorials to explain the step-by-step procedures for learning how to use each new tool and she believes her students have increased their competency in this area immensely.

**Co-curricular themes.** The following 11 themes were identified from the data as the reported co-curricular (programmatic) practices to develop global leadership competencies at the departmental level.

*Develop research agenda.* The development of students' research agenda is an important aspect of their time in the graduate program. One participant discussed the importance of helping his students develop multiple strands of research, while another participant develops her entire teaching philosophy on supporting her students to become the best researchers they possibly can. Papers for classroom assignments, book reviews, articles, conference proposals and presentations, grant writing, and, of course, the student's dissertation all connect to a research agenda. In Germany, one participant allows his international students to produce research in their native language as a way of encouraging cross-cultural communication and sustaining their passion: "I consider writing as a way of knowing and how we've learned."

*Provide specific courses.* The development of the global leadership competencies associated with this study can take place within an exhaustive list of courses and modules throughout the adult education graduate program. The competencies of managing self, for example, permeate all areas of the curriculum, from courses on micro-didactics and counseling to human resource development and foundational courses in adult education. Only one program in the study had a course specifically directed towards International Adult Education, although it was mentioned as a desired course from participants at three other institutions. Internship emerged as the most mentioned course from the data, related to conversations regarding character, business savvy, organizational savvy, managing community, inquisitiveness, resilience, empowering others, and leading change. Internships provide opportunities to work in the community, gain real-world experience, and begin making their own choices with regards to their research agenda: "The students go out and they build. They might put together a training program for someone, put something online for an organization, or many other possibilities." Students have to be ready for constructive criticism of their

work, both from an academic perspective as well as a practitioner perspective, experiencing the challenges of working in the field and seeing how organizational development differs from classroom learning.

*Encourage attendance at conferences.* Professional conferences provide multiple opportunities to develop global leadership skills. The theme of conference attendance and presenting at conferences emerged from the data with regards to the competencies of managing communities, empowering others, vision and strategic thinking, inquisitiveness, business savvy, and global mindset. Participants encourage their students to attend as many conferences as possible, even if they are not presenting. Specific classroom exercises are designed to prepare proposals for conferences and the students are strongly encouraged to submit, often working together in groups. Conferences provide the opportunity to interact with peers from other institutions, meet scholars in the field, and make contacts with other adult education professionals. It helps them to think critically about their own research agendas, to ask questions, and continue the dialogue around self-knowledge.

*Engage in mentoring/advising/shadowing.* Mentoring for adult education professors is an integral, daily part of their profession. Some of the institutions reported having formal mentoring programs, with regular check-in and status reports, advising sessions, and professional development aspects. Mentoring and advising is conducted on a more informal basis. Oftentimes, this role is a part of helping students learn resilience and dealing with the stress and anxieties of being a graduate student.

*Accept more international students.* Eight of the 14 participants mentioned the increase of international students within their adult education programs as a primary source of dialogue in a global context. Institutional support from the universities is an important contributor to this increase in international students in graduate programs. Participants reported how increased learning by all as a result of the one-on-one interactions with international students. Another participant in the study encouraged adult education programs to accept international students from as many languages and cultures as possible.

*Expand study abroad.* Five participants discussed the value of study abroad in the development of competencies such as global mindset, cross-cultural communication, inquisitiveness, flexibility, and interpersonal skills. The caveat is that study abroad needs to be disciplined, appropriately designed and thought out, and not just a vacation for the student. Given the time and financial restrictions of many adult education graduate programs, effective study abroad is difficult to achieve. However, it has been an incredibly rewarding experience for both the faculty and the students.

*Promote learning communities.* This can take the form of peer support groups, dissertation support groups, organized mix-and-mingles supported by the department, or regular weekly walk-in sessions with the faculty advisor. Once students enter dissertation stage, this form of learning community is often the only opportunity students

have to interact with each other on a regular basis and to support each other towards completion of the program.

*Coordinate alumni support.* In Germany, one participant talked inviting practitioners who have graduated from the program back into the courses in order to share their experiences in the field. He said it is important for students to learn more about the practices post-graduation. Similarly, another participant spoke about the importance of having graduates of the program return to speak with the students who are just starting: “We really do live in each other’s shadows, and that is an important part of my job.”

*Offer professional development opportunities.* Identified practices include allowing the students to help with teaching responsibilities, conducting research with the students, publishing with the students, and helping students build their own vita. The development of portfolios and e-portfolios was also mentioned as a way to start a storage system, a place to keep artifacts of their teaching and their knowledge, skills, and abilities, so that they have these relevant artifacts on hand when they go for an interview.

*Encourage volunteering/campus involvement.* One participant discussed how she encourages students to get involved in campus activities in order to build stronger networks with other students. Another discussed volunteer opportunities for her students in order to help them gain experience in community work, adding it has brought some very rich learning experiences into the program.

*Awareness at admissions.* Two participants discussed the importance of the competencies, specifically resilience and inquisitiveness, at the level of admissions. One said he hoped that students come into the program with competence in these personal dimensions; it was the kind of characteristic he looks for before admitting a student into the adult education program. Another added they can also be reinforced during their academic career.

## **Conclusions**

This paper sought to expand discussion about the connection between two specific *Standards* (CPAE, 2014) related to globalization and leadership, through an examination of the phenomenon of global leadership competencies, and the ways in which they are incorporated into the curricular and co-curricular elements in selected adult education graduate programs in the United States and Western Europe. During the course of the discussion of each competency, a gap emerged between the participants’ focus on the global angle of the study, and the leadership aspect. Most of the participants agreed that the unique nature of the field of adult education, which includes program planning, non-profit organization administration, corporate training, and human resource development, would be enhanced with more of an emphasis on leadership development. Yet, the conclusion across the study indicated there was little emphasis on any specific global leadership competency within the adult education programs.

Reviewing the data, the practices within the classroom which emerged represent good instructional methods for the teaching of adult education graduate students; but within the context of this study, the participants described the utilization of these techniques to facilitate learning within a global context. Practices at the co-curricular (programmatic) level indicate institutional ideas which have been utilized both in the movement towards internationalization of the adult education program, as well as basic practices for fundamental leadership development.

Most of psychological-based competencies associated with the first broad category, *managing self*, were reported to be developed at the individual level between the professor and the student. There was a general recognition of the value of these identified competencies, but much less of a focus on designing curriculum or programs around such a model. The emphasis of the second broad category, *managing people and relationships*, seemed to have been centered more on the building of the skills and experiences leading to completion of the program. Discussions for the competencies associated with the final category, *business and organizational acumen*, focused on how the adult education program prepared the students for success once they have graduated. This structure from micro- to macro-level thinking was consistent across all seven cases.

The participants focused much more on the global aspect of the competencies rather than the leadership component. Although some of the participants indicated a program-centered approach to their course of study, the many examples of student-centered learning they provided belied a rigid adherence to this mindset. Also, faculty members within the individual institutions usually did not know what the other faculty members teach within the individual courses each teaches. Additionally, there was little collaboration of thought processes regarding the themes associated with this study within the individual cases.

The findings from this study indicate adult education administrators and faculty offer a variety of approaches and mindsets in regard to global leadership competencies and development. Administrators and faculty in adult education graduate programs could enhance the opportunities for their students, infusing actions which give students a broader range of experiences for leadership development, especially in a global context. Specific courses in International Adult Education and International Human Resource Development, if not already offered, could provide a path toward accomplishing this goal. Internships for the graduate students emerged as a valuable experience in consolidating many of the global leadership competencies in a complex environment. Adult education administrators and faculty could enhance these Internship experiences by partnering with multi-national corporations and non-governmental organizations which maintain global objectives.

The programmatic practices which emerged from the findings of this study indicated supporting flexibility in admission requirements, increasing study abroad support, and accepting more of international students. As a result of these ongoing practices, professional development of the administration and faculty in terms of increasing global

mindset and improving cross-cultural communications could also facilitate improvement in the development of global leadership competencies of the adult education students.

A central assumption of this study was the desire for all adult education graduate students to obtain fulfilling employment in the global workforce upon graduation. To this end, adult education graduate students could seek out opportunities in support of this goal. Adult education graduates have a broad range of backgrounds compared to many other degree offerings. They represent a unique population for global leadership competencies to manifest itself at the graduate school level. Students could establish a global research agenda during their programs, attend and present at international conferences, collaborate with international scholars on globally-focused research projects, and actively participate in discussions, assignments, and global teams to facilitate a more global perspective and learning experience during their progression through the graduate program.

The breadth of the field of adult education, which includes areas of interest such as human resource development, corporate training, non-governmental organizations, non-profit community initiatives, entrepreneurial endeavors, and social justice education, would benefit greatly from a stronger focus on leadership development initiatives, especially processes which aid in the development of these competencies within a global context. There just needs to be greater focus and care in the early developmental aspects of the program in order for those seeds to turn into a strong workforce with the mindset, knowledge, skills, and attitudes to succeed in the complex and multi-faceted challenges facing our graduates today.

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# The Impact of New Teacher Mentoring Programs: A Mentor's Perspective

Kelly E. McCarthy

University of South Florida, USA  
kemccart@health.usf.edu

## Abstract

High attrition rates among new teachers are negatively impacting the stability and continuity of school-based instruction. The U.S. Department of Education federal initiatives (e.g., No Child Left Behind, Race to the Top, and Common Core) as well as district-based mandates have increased the attention and demands on recruiting and supporting high quality teachers. Mentoring programs are a feasible and practical venue to significantly increase teacher retention, increase stability and collegiality in local schools and districts, and create effective strategies to increase new teacher confidence and competencies. This study explored the experiences of seven new teacher mentors. Data was collected through focus group sessions. During these sessions, the mentors identified characteristics and competencies for new teachers and mentors, shared some of the personal successes and challenges they experienced as a mentor, explained the key professional responsibilities and interpersonal aspects necessary to make the mentor/mentee relationship flourish, and shared some positive outcomes that resulted from the mentor experience. Findings from this study can be used by the education and research communities to improve the induction experiences of new teachers, increase the commitment and engagement of veteran teachers, and reduce the attrition rates of dissatisfied teachers who choose to leave the field.

**Keywords:** mentoring, new teacher induction, professional development, training

## Introduction

Beginning teachers face many challenges when they enter the classroom. Early in their tenure, they often develop a survival mentality where they are focused primarily on solidifying classroom management skills and establishing procedures and routines (Achinstein & Barrett, 2004). These basic skills can be difficult to attain especially if the new teacher is placed in a school where the socio-economic status, ethnicity, and home language of the students is different from their own (Darling-Hammond, 1997).

These hurdles, and others, make it difficult for schools and districts to recruit and retain teachers. Research suggests that a significant number of new teachers leave the teaching profession within the first five years. St. George and Robinson (2011) conclude that 18-50% of new teachers exit within their first three to five years of teaching. New teacher turnover has been documented as a chronic, systemic problem which has "a profound effect on the learning community as a whole and disrupts the educational process, thus impacting student learning" (St. George & Robinson, 2011, p. 25). This attrition is not only daunting for districts, but for the U.S. as a whole, as they spend over \$7 billion annually on matters related to teacher turnover (Morettini, 2016).

To combat this issue, the development of new teacher induction programs and supporting professional development programs have been implemented to help those who transition from pre-service to in-service teaching (Akiba, 2012; McCarthy, 2016).

The success of mentoring programs are often dependent on how mentors are selected and prepared, as well as their orientation when working with mentees. When mentoring programs are thoughtfully designed and executed, they can effectively guide new teachers' views of and interactions with their students and assist with the establishment of procedures in their classroom (Wang & Odell, 2002).

### **Literature Review**

Like orientation programs in other professions, teacher induction provides a series of support mechanisms to acclimate new teachers to the classroom. These programs are specifically designed to bridge the gap from student teacher to teaching professional. Induction activities often include procedural skill development, assessment and reflection, socialization and relationship building, and content knowledge development. Support for induction can take on many forms including: seminars, courses, workshops, self-directed learning, and mentoring (Ingersoll & Kralik, 2004; McCarthy, 2016). The establishment of a mentor/mentee relationship can be formal or informal. How mentors are assigned, the frequency of their visits, and the structure of their communication are guided by teacher needs and district/site mandates. Mentoring in teacher induction programs can be pivotal in teacher retention as participation in these programs promote inquiry in the classroom, reflective teaching, and increased focus on student reasoning and understanding (Feiman-Nemser, 2001).

Over the last 20 years, mentoring has become a dominant feature in induction programs (Ingersoll & Smith, 2004). According to St. George and Robinson (2011) mentors serve a variety of functions where they “assist, coach, consult with, collaborate with, and guide new teachers to support their transition from novices to successful educators committed to the profession” (p. 25). These programs “shape new teachers’ perspectives of and interactions with students” (Achinstein & Barrett, 2004, p. 718) and address feelings of being “under-prepared, overwhelmed, and under-supported” (Kent, Green, Feldman, 2012, p. 1). Research has demonstrated that when mentoring is facilitated by veteran educators, it supports the development of teaching practices with new educators (Edwards-Grove, 2014). While the benefits of mentoring are well-established, the facilitation of the mentor/mentee relationship can vary greatly depending on the mentor’s values and beliefs about education and the role the mentoring experience has in the mentee’s overall professional development plan.

### **Selecting and Preparing Mentors**

Proper selection and training is necessary when a veteran teacher transitions to the mentoring role. Rowley (1999) identifies six qualities for an effective mentor. First, the teacher must be committed to their new role as a mentor. They must be dedicated to find the most appropriate ways to support and develop their mentee. This involves proper mentor training when they start their role and a commitment to continued development. Second, the mentor must be accepting of the new teacher. They must

view the individual as a developing professional and view deficiencies as challenges to be overcome. Third, the mentor must be adept at providing instructional support. New teachers begin their careers at varying skill levels. Mentors must adapt to their mentee's abilities and develop strategies for improvement. This most effectively occurs when observation techniques and constructive feedback are utilized. Fourth, the mentor must be able to adapt and work with varying personalities. Just as student populations are diverse, so are teachers. A good mentor will adjust their communication skills to meet the needs of their mentee. Fifth, mentors must be self-directed learners. The diversity of classrooms calls for the continual exploration of strategies and ideas. This ensures professional growth for both the mentor and mentee. Finally, effective mentors promote positivity and hope. New teachers face many challenges, and it is important for mentors to reaffirm their potential and see them through their struggles and frustrations.

In addition to possessing fundamental qualities, mentors must be properly oriented to their new role. Wang and Odell (2002, p. 525) contend that "mentor preparation can substantially influence knowledge of particular mentoring techniques and skills to shape their mentoring practice." This is further supported by Ambrosetti & Dekkers (2010) who found that individuals entering the mentoring role had little knowledge of the mentor process and were unsure of their role in the mentor/mentee relationship. Therefore, training experiences are necessary to onboard new mentors. In addition to formal training, mentors must also pull from their own experiences as teachers. How a mentor chooses to work with and train their mentee relies heavily on their own professional experiences, beliefs, and proficiencies (Aspfors & Fransson, 2015).

### **Orientation to Mentoring**

Once trained and in the field, mentors often fall into one of two orientations: a developmental conception or an instrumental conception (Franke & Dahlgren, 1996; Orland-Barak & Klein, 2005). Mentors will often draw from both conceptions simultaneously, but will usually favor one over the other (Clarke & Jarvis-Selinger, 2005; Van Ginkel, Verloop, & Denessen, 2016). Mentors who have an instrumental orientation are focused on effective teaching practices. Classroom management is often the primary goal when working with new teachers. A speedy proficiency in the methods of teaching is also emphasized, with the mentors focused on making their mentees autonomous as quickly as possible (Graham, 2006; Norman & Feiman-Nemser, 2005; Young, Bullough, Draper, Smith, & Erickson, 2005). When conferencing with mentees, the mentors will review their lesson from beginning to end, focusing on behaviors and the mentees feelings about their teaching. The relationship is viewed as hierarchical by the mentor, where they provide their mentees with tools and demonstrate routines so they can quickly become proficient in their teaching role (Graham, 2006; Orland-Barak & Klein, 2005).

Mentors who hold a developmental conception are more focused on the professional needs of the mentee. They take into account the unique experiences and perceptions of their mentees when developing their messaging (Feiman-Nemser, 2001). They focus on communication and promote the idea of student autonomy in the classroom (Franke

& Dahlgren, 1996). They often present different viewpoints on teaching and strive to create collaborate and creative partnerships with their mentees (Orland-Barak & Klein, 2005).

### **Benefits of Mentoring**

Whether mentors apply an instrumental or development approach, working with new teachers provides them with opportunities for professional development and career growth. Research indicates that mentors improve their professional competency by working with new teachers (Hudson, 2013; Huling & Resta, 2001). While preparing for meetings and facilitating the mentor/mentee relationship, mentors source and acquire new philosophies on curriculum and instruction. The mentees can also become the source of information when they provide mentors with information on new teaching techniques and content knowledge as well as literature on effective educational practices (Mei, 1993).

When serving in their role, mentors develop the improved ability to be reflexive of their teaching practices. In order to prepare new teachers entering the field, mentors have to reflect on their own values and beliefs regarding teaching practice, student interaction, and their identity as an educator (Huling & Resta, 2001). Critically reflective teachers often develop a renewed sense of purpose, and become re-energized and more committed to the teaching profession (Ford & Parsons, 2000; Hudson, 2013; Steffey, Wolfe, Pasch, & Enz, 2000). They also develop greater self-esteem and renewed purpose in the profession (Carger, 1996).

Interactions with mentees prove to be rich experiences for mentors. They gain improved self-confidence, develop mature coping and communication skills when working with adults, reaffirm their teaching beliefs, and are more objective of their practices as educators (Hudson, 2013; Huling & Resta, 2001). Mentors are often solicited to take on greater leadership roles within their schools and districts as well as asked to participate in action research within their school sites or local higher education institutions (Huling & Resta, 2001).

While there is a sizable amount of research on the benefits of mentoring to pre-service and new teachers, few researchers have studied the impact of mentoring experience on the mentors themselves (Aspfors & Fransson, 2015; Bullough, 2012). By studying the mentor experience, educational agencies and districts can pinpoint the attributes for effective induction and work to overcome site-based challenges to create an effective and sustained teacher workforce.

### **Methods**

This study sought to explore the knowledge and experience gained from serving as a new teacher mentor. Participants were asked to identify the qualities of effective mentors and teachers, share the challenges and successes of serving as a mentor, identify the psychosocial supports that were fundamental to building a relationship with a mentee, indicate the professional responsibilities they viewed as most important to new teachers, and describe how their experiences as a mentor have impacted them as

an educator. This research was structured using a single-category focus group study design.

### **Sample**

The sample for this study was taken from a large urban public school district with an established new teacher mentoring program. The program was designed to pair veteran teachers with new teachers entering the field. Mentors were employed full-time by the program. As part of their position, each mentor had a group of assigned new teachers which represented a variety of content areas and grade levels. The mentors would work with their mentees on a set weekly or bi-weekly schedule, depending on the mentee's years of experience. The mentor program had an established curriculum for the mentor/mentee meetings; however, mentors were also able to incorporate their own content while working with their assigned teachers.

The district employed 87 mentors at the time of the study. A recruitment email was sent to every mentor in the program inviting them to participate in the research. Seven mentors indicated an interest and chose to participate. The group consisted of six females and one male. Their years of teaching experience ranged from 5 to 19 years. Four of the members had earned a degree in an education discipline, the other three were non-education members who had completed an alternate certification program to earn their teaching credentials.

### **Data Collection**

This study utilized focus groups as the primary method for data collection. The decision to utilize focus groups was three-fold. Focus groups enable a researcher to discover factors that affect the motivation, opinions, and behaviors of others; they encourage *group think* which potentially generates a greater number of ideas than individual interviews; and they elicit a wide range of attitudes and thoughts on a topic (Krueger & Casey, 2009).

A series of questions were developed for the focus group sessions. The questions were pilot tested with two mentors in the program. These individuals did not take part in the focus group sessions. Minor adjustments were made to the questions based on the feedback received from the pilot participants. Two focus group sessions were held to collect the information for this study. Participants were encouraged to attend the session that worked best with their schedules.

Each participant was provided a copy of the focus group questions, and their informed consent form, before the session meeting. They were encouraged to read each document fully beforehand. Both sessions were facilitated after school and were audio recorded. Each session lasted approximately 90 minutes. In addition to providing informed consent, participants were also asked to complete a short demographic questionnaire.

## **Analysis**

Krueger and Casey (2009) contend that focus group data analysis must be systematic, verifiable, sequential, and continuous. The data analysis in this study sought to address all four qualities. The researcher transcribed the recordings from the two sessions. The transcriptions, along with field notes, were used to systematically analyze the responses to identify major themes. The participants were sent sections of their transcribed responses to verify what they stated in the session was in fact what they meant to convey. The interview questions were designed to have a sequential flow, starting out first with generalized questions and progressing to ones that were more personal in nature. Finally, the data analysis and procedures were reviewed continuously. After the first session, additional question prompts were created by the researcher to elicit more in-depth responses from the participants in the second focus group session.

A classic analysis strategy was used to identify themes and categorize results. Responses to each session question were analyzed separately. Comments that addressed the questions directly asked were highlighted. Responses that were similar in nature were grouped. Then data from both sessions were compiled. Particular focus was given to responses that were frequently cited and/or specific or extensive in nature.

## **Findings**

Although there were series of questions asked during the focus group sessions, seven of the questions generated pertinent outcomes. The findings from the sessions are presented in the following paragraphs.

### **Qualities of Effective Teachers**

When the mentors were asked to identify the qualities of an effective teacher, themes emerged from the analysis of responses. Participants felt that new teachers needed to be resilient, have a love of learning, express a calling to serve, possess content knowledge in their teaching area, and exude confidence. The mentors expressed that new teachers face a tremendous amount of challenges from a variety of sources (colleagues, parents, administrators, and coursework/training) in their positions. They must develop a thick skin to push through and overcome these difficulties. They also have to be open to hearing and acting on feedback. Several mentors stated that regardless of whether a new teacher is an education or non-education major, there is a tremendous amount of learning required in order to refine their teaching skills. Most mentors felt they could teach their mentees the necessary content and pedagogy, but they felt the new teachers must have an intrinsic calling to serve, help, and inspire students. Every mentor in the study agreed that teachers who have a strong understanding of the content they are teaching, have less difficulty during their first years of teaching. One participant summed it up as “being knowledgeable in your content equates to confidence; it’s hard to teach yourself and then teach others.” The mentors in this study indicated they spent the bulk of their first year helping their mentees master the content. Having a presence and “with-it-ness” was also stressed as necessary in order for new teachers to master their classroom environment.

### **Effective Mentor Competencies**

When the participants were asked about mentor competencies, they cited intuitive & articulate, self-motivated, willingness to learn, and analytical as necessary proficiencies. The mentors noted that a large part of their work was devoted to providing feedback and insight to their mentees. Therefore, they believed that mentors needed to develop an understanding of diverse teaching perspectives and foster the ability to craft messages for effective communication. Since mentors were working independently with their assigned teachers, they must also be self-starters and motivated to complete the tasks their mentees ask of them. Some of the participants described mentors as generalists, as they assist teachers in a variety of content areas and at a variety of levels. This wide array of audiences forced the mentors to regularly seek out information outside their “content area comfort zone”. Finally, the participants felt that mentors needed to accurately identify the actions that were creating a positive or negative impact in the mentee’s classroom and develop strategies to improve their areas of weakness. One participant described this process as sneaky mentoring, *“they make the decisions, but I’m constantly pushing them along the way.”*

### **Mentor Successes**

When asked about their successes as mentor, the participants cited “aha moments”, influencing the evolution of skills, improving teacher openness, and the development of empowerment/initiative with their mentees. The mentors enjoyed when their mentees experienced “aha moments”. When these situations occurred, the mentors knew the teachers fully grasped the situation at hand and were more apt to adjust their practices for the better. Any mentee milestone development was satisfying for the mentors; especially for the mentors who were assigned the same teacher for multiple years. Several mentors expressed that when mentees began exhibiting reflexive behaviors, they had achieved a great breakthrough in the mentor/mentee relationship. The mentors attributed this development to building trust with their mentees. One participant described her success as a mentor was due to the development of “strong personal relationships with [her] teachers. They can text me and ask me anything they need, anytime.” The mentors enjoyed seeing teachers become empowered and taking initiative without their assistance. Initiative was described as a willingness to try new things, seeking out assistance on a topic or areas not previously discussed in a meeting, raising their personal expectations, and challenging their situations. The participants felt these were important signs to indicate the teacher was becoming more self-reliant.

### **Mentor Challenges**

There were four challenges that were frequently expressed by the mentors, they included responsibility for mentee accountability, internalizing mentee struggles, maintaining diplomacy & tactfulness, and feelings of isolation. The mentors viewed their work with the mentees as a constant pursuit of excellence. They measured their own success based on their mentees’ successes. They felt directly responsible for their mentees growth and development. Many stated that when a mentee struggled, they internalized it as their own struggle as well. One participant described this experience as *“the ones who struggle the most are the ones who put up a blockade. They are so*

*lost they can't find their way, even with help.*" Some mentors found that as the school year progressed, their relationships with mentees would often morph from an informal relationship to more of a goal-oriented partnership. This sometimes led to difficult and sensitive conversations. Mentors repeatedly stated they needed to exercise diplomacy and tactfulness in order for change to occur and their message to be well received by the mentee. In addition to the challenges, the mentors found working in a variety of schools left them feeling isolated. Every participant agreed that their monthly mentor meetings were a necessary outlet for them to collaborate and socialize with peers. Of all the challenges, isolation was stated most frequently by the mentors.

### **Interpersonal Aspects of Mentoring**

When discussing the psychosocial aspects of the mentoring program, mentors believed that establishing integrity, facilitating productive reflections and discussions, and encouraging ownership of action were critical to the mentor/mentee relationship. The mentors expressed that their relationships needed to be built on trust and honesty. All the mentors cited the importance of building an interpersonal relationship first with their mentees. One mentor described this as "a fine balance. You have to get to know them first as a person, and then as a professional. You need to make them feel that you are there to support them - always." Confidentiality was also noted as an important component to the mentor/mentee relationship. They believed the mentees had to feel they could be open and honest about their thoughts and practices without repercussions. Support and protection were seen as key priorities. These types of discussions often led to a blending of personal and professional relationships. Although the mentors found themselves becoming close with many of their mentees, they all agreed that it was important to have a professional balance. The mentors saw themselves as facilitators. Mentees would not be receptive if they were told what to do; instead, areas of growth needed to be a mutual discussion.

### **Mentee Professional Responsibilities**

When asked about professional responsibilities for new teachers, every mentor agreed that establishing classroom policy and procedures immediately was critical. Thereafter, a tailored approach would need to be taken to address each teacher's unique needs. The mentors agreed that the first few weeks of school should be dedicated to navigating administrative tasks, establishing procedures, and helping the teachers set up their room. Once the teacher's day-to-day flow was established, the mentor and mentee could then goal set to address additional areas for training and skill development. The mentors used a variety of methods to determine what to prioritize; these included self-reflection tools, observations, and formal required trainings. Each development plan was tailored specifically for the mentee. One mentor described the process as "different for every teacher, you have to pinpoint specific areas. It just can't be generalized." The mentors agreed that both the education majors and non-education majors struggled equally when they first entered the classroom. Several mentors in the study indicated that revisions needed to be made to pre-service education programs to ensure that new teachers were better prepared for the demands of the classroom.

### **Impact of Serving as a Mentor**

The participants in this study indicated that their position as a mentor assisted them in becoming more introspective, collaborative, and renewed their appreciation of various curriculum content areas. Critical reflection was a skill that many mentors taught their mentees. Thus, they became more skilled in the process and believed that if/when they returned to the classroom they would be more introspective teachers. Reflecting on successes and failures with their mentees enhanced their skills and practices in teaching. One mentor stated “I now know what I was doing wrong as a teacher.” The desire to become more collaborative was also expressed among the participants. The mentors felt that through collaboration, they could make systematic changes in the district. They believed the current climate in the district was focused on competitiveness; and instead, it should be focused on creating an environment that celebrated successes and provided a venue to share effective teaching strategies. Serving as mentor generalists, they were able to gain experience with different content areas. Some mentors described themselves as having an “identity crisis” and were considering teaching different subjects when they returned to the classroom.

### **Summary**

The mentors in the study shared a wealth of insight during the two focus group sessions. Having worked with dozens of new teachers over several years, they confidently identified resiliency, confidence, internal motivation, and commitment to the profession as the key qualities for mentee success. Having spent time in the role of a mentor, they believed effective mentors needed to be skilled communicators, life-long learners, analytical, and intrinsically motivated. The mentors attributed their career achievements to the performance of their mentees. When their mentees were developing their teaching skills, improving their self-reflection abilities, and becoming more self-reliant; the mentors felt they were successful in their role. Some challenges the participants experienced as mentors included associating their mentees success with their own, internalizing conflicts, difficulty maintaining diplomacy and tactfulness, and feelings of isolation and loneliness. When developing their relationships with mentees, the mentors focused on ensuring accountability, establishing trust and reliability, and promoting effective self-reflection. When determining which professional responsibilities to tackle first with their mentees, the mentors focused on classroom management, rules and procedures, and administrative tasks. Once those were established, they developed a tailored plan with the mentee to address other areas of growth. When reflecting on the overall experience of serving as a mentor, the participants found that the experience made them more introspective, collaborative, and renewed their appreciation for the profession.

### **Implications**

The findings from this research are applicable to both the education and research communities. The insights from mentors in this study can be used to further develop in-service teacher preparation programs, improve district-sponsored professional development, create informal mentoring programs, and better leverage the experience of veteran teachers in the classroom.

The participants in this study indicated the mentees they were assigned had skill deficiencies. The group felt that more could be done to improve pre-service education so that the new teachers would have less challenges to overcome when they initially enter the classroom. Like intern teachers, mentors have a unique perspective on the needs of incoming teachers. Districts and local higher education institutions could leverage the experience and insight of these mentors to further improve district trainings, college courses, and internship programs to better prepare pre-service and induction teachers for the field.

Many districts do not have the funding or the staffing to organize a formal mentor program. The benefits of mentoring for both mentees and mentors is documented in the literature and can be seen in practice around the world. While formal mentoring programs provide an organized, systematic way to promote teacher development, informal programs can also be beneficial to new and veteran teachers. For districts that are unable to organize formal programs, they could leverage the expertise of expert teachers by pairing them up with new teachers at their individual school sites. These partnerships would encourage professional growth and development for both individuals and potentially improve the learning environment for students as well.

Mentor/mentee relationships provide structure for new teachers entering the field of education. Often, initial trainings and education do not adequately prepare teachers for the diverse classroom and school site challenges they encounter. New teacher mentoring programs provide critical relationships where the mentees have a trustworthy and adept colleague to learn from, confide in, and share successes with. Whether the mentoring relationship is formal or informal in nature, research has demonstrated that having a mentee early in one's teaching career reduces difficulties during the induction period, improves job satisfaction, and increases the likelihood of retention in the field.

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# Clinical Supervision Model: Mentors' and Teacher Trainees' Journey in Teaching Practicum

Sehnaz Baltaci Goktalay

Faculty of Education  
Uludag University, Turkey  
sehnazbg@uludag.edu.tr

## Abstract

Constructive feedback is one of the crucial components of teacher education process. The Clinical Supervision Model (CSM) is a collaborative supervision model which allows active participation of the teacher trainee and supports the quality of pre-service teacher education with reflective and constructive feedback. Four trainees were observed for 10-week during the teaching practicum in 2015-2016 spring semester using CSM's observation and conferencing techniques. The reflection papers, in-class notes, voice recordings and interview results were analyzed. Three out of four trainees were positive about the process. The mentors were happy to be trained to use CSM. Only one pair reported negative reflections about the communication between us. Overall, CSM process was a helpful and supportive side of the teaching practicum experience.

**Keywords:** teacher education, teaching practicum, clinical supervision model, constructive feedback, reflection

## Introduction

Constructive feedback is one of the crucial components of teacher education process. The effectiveness of teaching practice is dependent upon the quality of feedback as well as its implementation by the stakeholders. In our case, they are one supervisor, four mentors, one cooperating teacher, and four teacher trainees. In addition to the quality, amount, and type of feedback, the active participation of the teacher trainees supports the quality of pre-service teacher education (Gursoy et al., 2013).

Gebhard (1984) listed five models of supervision for in/pre-service teacher education programs as directive, alternative, collaborative, nondirective and creative. The Clinical Supervision Model (CSM) is placed in the collaborative supervision model where the supervisor works with the trainee, but does not direct him. An issue is posed in the teaching context, and the parties work together on the definition, examination and the implementation stages. Although the original model was proposed for in-service teachers, it has been used with pre-service teachers, as well (Clifford, Macy, Albi, Bricker, & Rahn, 2005; Gursoy et al., 2013, Bulunuz et al., 2014, Baltaci-Goktalay et al., 2014). While the original model has provided a perspective for reshaping the understanding of the individuality and the role of supervisors and teacher trainees, the previous models neglected. CSM is valuable because it has the potential to foster social interactions between stakeholders in schools.

In this study, CSM model is adapted from Georgia State University. The model consists of five cyclical stages: Pre-conference, the mentor and the teacher trainee talks about

the objectives, the activities and evaluation of the lesson and decides what the mentor should be focused on during the observation of the trainee; Observation and data collection, based on the focus points, the mentor observes the lesson using the formerly decided points and takes notes or draw diagrams; Data analysis, the mentor analyzes her data and plans the appropriate feedback to inform the trainee; Post-conference, the collected data are shared with the trainee, but the mentor doesn't direct anything to the trainee. The issues are defined and trainee is given an opportunity to reflect on them. The mentor and the trainee choose areas for improvement and begin planning for the next lesson's objectives; Reflection, the mentor reflects on her own observation performance and generates a plan for improvement for the next observation.

### **Method**

Eight graduate students received training in the CSM from the researcher who is using CSM for four years in her teaching practicum courses. They were trained in CSM stages, observation techniques, giving appropriate feedback, and conferencing skills. The case study method was used as the research design. The purpose of the study was to examine:

1. How the mentors applied the techniques during the CSM process?
2. What type of feedback were given to the teacher trainees?
3. Teacher trainees' perspectives about the CSM process

### **Participants and the Process**

The CSM model was taught in the researcher's master's degree course to eight graduate students who trained as mentors. Trainees were also informed about the CSM and plan of the teaching practice process which lasts 14-week during 2015-2016 spring semester. The first four weeks are devoted for CSM instruction. The mentors watched training videos and attended to 2-hour/week face to face courses. The training videos included the five stages of CSM, supervisory process, the observation techniques (selective verbatim, verbal flow, at task, class traffic patterns, and interaction analysis), and the conferencing skills (trust building, questioning, responding and empowering). Four students were volunteered to be mentors of the teacher trainees. Four teacher trainees are divided to the mentors randomly. The mentors observed the teacher trainees for 10 weeks and took reflection papers and in-class diagrams/notes for the data collection. Pre-conference and post-conference sessions were voice-recorded. Teacher trainees were interviewed at the end of the semester by the researcher to understand how they felt during the supervisory process.

### **Data Collection and Analysis**

The data for the study was collected via reflection papers, in-class diagrams/notes of the mentors, voice recordings, and the interview responses. The questions in the structured interviews were prepared by the researcher to supplement the reflection papers of the mentors. Descriptive analysis was used for the data analysis. The interviews were transcribed and then coded. The reflection papers were also coded and cross checked with the interview responses. Voice recordings were also transcribed first and feedback statements were coded according to conferencing techniques.

## Findings

The reflection papers and the in-class diagrams/notes of the mentors were analyzed. It was seen that the 4-week training were enough for the mentors to use the different observation techniques. The most used one was the class traffic, at task and interaction analysis. While three mentors had no difficulties during the process, one of them had a serious problem on communicating with her trainee. Teacher trainees used lots of positive adjectives when describing the performance of their mentor, except one. He stated that “It would have been better if my mentor was a different one. I didn’t want to follow her suggestions at any point”, the similar reflection was reported in the mentor’s reflection paper as “we were belonged to different galaxies with my advisee. He had no improvement during the semester because he didn’t listen to me even once.”

The positive teacher trainees thought that they had the opportunity to see what they have done during the lesson and had a chance to reflect upon them to improve their teaching skills. When the voice recordings were analyzed, it was found that the mentors were good at giving constructive feedback to the trainees. The most used technique was the questioning. Teacher trainees thought that the CSM process was very helpful in terms of their professional development. Even the negative trainee stated that “Although I couldn’t get along with my mentor, it was a must-have experience for my personal development.”

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# Determining the Musical Competencies of Classroom Teacher Candidates in Turkey by Using the Delphi Method

Şehnaz Sungurtekin

Faculty of Education  
Uludag University, Turkey  
sehnazsun@uludag.edu.tr

## Abstract

Beginning from the 1990s, a number of standards have been developed about the qualifications of teachers and their competencies in Turkey. The special field competencies for classroom teachers consist of eight dimensions. One of the dimensions is 'Art and Aesthetic'. The competencies of 'Art and Aesthetic' have been defined under four titles and each title consists performance indicators of three levels. However, 'Art and Aesthetic' competencies and performance indicators are more in context with visual arts. Therefore, it is needed to define the musical competencies of classroom teachers. In this research, to determine the musical competencies for classroom teacher candidates, a Delphi study had been conducted in three rounds whether there is a consensus among experts or not. After three rounds of Delphi application, the findings indicate that there has not been reached a consensus on: "following the art activities and publications" and "composing music pieces" competencies. At the end of this research, musical competencies for classroom teacher candidates were determined. Taking these competencies into consideration is recommended to create and develop effective arts education programs in teacher training programs in Turkey.

**Keywords:** musical competencies, classroom teacher candidates, "art and aesthetic" competencies, delphi method.

## Introduction

"What competencies are necessary for individuals to cope with important challenges in the different spheres of life, such as the economic sphere, the political sphere, and family life?" was one of the important questions at the second international DeSeCo Symposium in 2002, within the OECD project called "Definition and Selection of Competencies: Theoretical and Conceptual Foundations". In the final report many perspectives and reflections about *Key Competencies for a Successful Life and a Well-Functioning Society* were emphasized to define the conceptual framework. In the context of sustainable development and social cohesion, individuals need a variety of competencies to cope with today's complex problems in their lives. However, the future is unclear for all human beings. What competencies do we need to prepare our children for an uncertain future? This is a crucial question for educators. In the meantime, the responsibilities of educators in the 21st century have increased in order to raise a dynamic, tolerant young generation for a peaceful and respectful society. In many countries, teacher competencies are developed within the scope of teacher training policies. Beginning from the 1990s, it is attempted to develop a number of standards about the qualifications of teachers and their competencies in Turkey. The Teacher

Competencies Commission, which consists of representatives of the Ministry of National Education and universities, determined teacher qualifications in 1999 and these qualifications were enacted in 2002. In 2006 special field competencies have also been developed with the cooperation of Higher Education Council and the Ministry of National Education. Thus, "General Proficiency in Teaching Profession" and "Special Field Qualifications" were developed for all teaching subjects within the framework of qualifications and published by the Ministry of National Education in 2008. The special field competencies for classroom teachers consists of eight dimensions. These are Learning-Teaching Environment and Development, Monitoring and Assessment Individual and Professional Development-Social Relations, Art and Aesthetic, Language Consciousness Development, Scientific and Technological Developments, Individual Responsibilities and Socialization, and Physical Education and Security. The competencies of 'Art and Aesthetic' for classroom teachers have been defined under four titles and each title consists performance indicators of three levels. This is seen as an important development in terms of art education in Turkey. However, 'Art and Aesthetic' competencies and performance indicators are more in context with visual arts (Sungurtekin, 2015). Therefore, it is needed to define the musical competencies of classroom teachers.

## **Method**

In this research, to determine the musical competencies for classroom teacher candidates, a Delphi study had been conducted in three rounds whether there is a consensus among experts or not. The Delphi method was used as the research design. The Delphi method is an exercise in group communication among a panel of experts. Gunaydin (1999) describes the method as follows:

*"The technique allows experts to deal systematically with a complex problem or task. The essence of the technique is fairly straightforward. It comprises a series of questionnaires sent either by mail or via computerized systems, to a pre-selected group of experts. These questionnaires are designed to elicit and develop individual responses to the problems posed and to enable the experts to refine their views as the group's work progresses in accordance with the assigned task. The main point behind the Delphi method is to overcome the disadvantages of conventional committee action".*

In recent years, the Delphi method has been used in many problem situations in education, applied to students, teachers, parents and administrators (Demirel, 2007).

The research questions are as follows:

1. What musical competencies are required for classroom teacher candidates in "Music" and "Teaching Music" courses, according to lecturers who were participated in the Delphi applications?
2. Is there a consensus among lecturers about the musical competencies for classroom teacher candidates?

## Participants and Implementation of the Research

The experts were lecturers who were giving music lectures at Departments of Elementary Education in Turkey. An invitation was sent to the lecturers via e-mail to participate in this research. Lecturers, who answered positively, participated in the first Delphi application. The participation of experts is shown in Table 1.

**Table 1:** Participation of Experts in the Delphi Applications

First Delphi Round		Second Delphi Round		Third Delphi Round	
Calls f	Responses F	Calls f	Responses f	Calls f	Responses f
81	60	60	49	49	36

In this research, a questionnaire was sent via online to the expert group, who accepted the invitation for participating in the first Delphi application. Experts were asked what the required musical competencies of classroom teacher candidates might be in music courses at university (“Music” and “Teaching Music” courses). Opinions from 60 experts were grouped under the themes of “knowledge”, “skills”, and “competence”. In the second Delphi application a five-point Likert-type scale was prepared by the researcher and sent to the experts. The experts were asked to indicate at what level they agree to the competencies by responding to one of the options “strongly agree”, “agree”, “neutral”, “disagree”, “strongly disagree”. In the third Delphi application, the items with descriptive statistic were sent back to the experts who did not agree with the competencies to show if there is a consensus or not.

## Data Collection and Analysis

A three round Delphi application was conducted to determine the musical competencies of classroom teacher candidates according to lecturers who are responsible for the musical courses at the faculty of education. After the first Delphi application, opinions were grouped under common categories and listed as frequency, percentage and importance range. In the second and third Delphi application, descriptive statistics on arithmetic mean, standard deviation, as well as median, and quartile difference have been utilized by using the SPSS 17.00 program. Overlapping opinions were separated from others to determine if there was a consensus among experts.

## Findings

The findings indicate that there has not been reached a consensus on: “following the art activities and publications” and “composing music pieces” competencies. Researches indicate that classroom teacher candidates and classroom teachers have very little background in music education (Deirdre Russel-Bowie, 2010) and meet a variety of problems in music lessons that require knowledge, skills and special ability in music (Küçüköncü, 1998; Kocabaş, 2000; Vries, 2011). It must be very difficult for teacher candidates with minimal music education backgrounds to compose little music pieces. This could be one of the reasons why lecturers do not agree with this competence.

At the end of this research, musical competencies for classroom teacher candidates were determined. Taking these competencies into consideration is recommended to

create and develop effective arts education programs in teacher training programs in Turkey.

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# **“There is Nothing That I Learnt in Sport That Doesn't Apply to Business, or Life”: The Continued Education and Career Development of Professional Sports People**

Lisa Barnes

Avondale Business School  
Avondale College of Higher Education  
Lisa.barnes@avondale.edu.au

## **Abstract**

The business of sport has always been popular in countries all over the world. This research shows the success of organisations such as RUPA (Rugby Union Players Association), Universities, Industry and Players of Rugby when they play together off the field in educating professional sports people. This research was completed over 3 years, with 2 different rugby organisations, the NSW Waratahs and the 2016 Olympic qualifying Australian Rugby 7s'. The use of the Curriculum, Assessment and Pedagogy (CAP) model, shows a tailored education program designed specifically for professional sportspeople, not used to sitting in a classroom for any length of time. The CAP model provided rugby players/students with guest lectures by industry experts and using their industry partners enabled students to tour major industry facilities to cement their classroom learning. Outcomes included 20 rugby players graduating from the advanced diploma of management program over a 3-year period. The collaboration of such organisations over a 3-year period also resulted in reciprocal university research for these sporting clubs, and their industry partners. The CAP model designed for professional sports people bring sport, industry and education together off the field, a collaboration resulting in win-win outcomes for all.

Hayes (2003) sees curriculum as a shared vision for classroom learning, she also believes there is a strong link and commitment to be able to align curriculum, assessment and pedagogy. Bernstein (1973) says “curriculum defines what counts as valid knowledge, pedagogy defines what counts as valid transmission of knowledge and assessment defines what counts as valid realisation of this knowledge”. Allen (2004) defined pedagogy as is “the art of teaching where different practices are informed by different educational philosophies”. Gore (2001, p.124) refers to pedagogy as “to what takes place in the classroom and other teaching sites”. Pedagogy can “provide the university and the school communities with unique perspectives on teaching and learning” (Lytle and Cochran-Smith, 1994, p.24). Studies by and Newmann and Associates (1996); Avery (1999); Avery and Palmer (2001) all state authentic pedagogy in conjunction with assessment has a positively link to authentic performance of students.

Traditionally assessment has been used to grade students or satisfy the demands of external parties via a form of accountability (Shepard, 2000). Assessment however, should also be used to support the learning of students and encourage an enhancement of understanding of course materials. Some academics have shown a shift in traditional assessment methods to what is known as a type of continuous quality improvement

known as learner centred instruction and assessment. This type of assessment involves classroom assessment techniques (CATS) which attempt to shift the focus from *teaching* to *learning* by linking it with various assessment tools.

However, current research has found that the link of the three criteria is not being used by teachers in the classroom in terms of the “framework of intellectual quality, relevance, supportive classroom environment and recognition of differences” (Gore 2001p.124). Current and new teachers according to Gore (2001) are not producing what she coins “Productive Pedagogy” or student learning outcomes that can be measured. In fact, research by Newmann and Associates (1996) found in the United States that it was rare to find authentic pedagogy. This leads to the research problem: “Can a course be delivered to professional sports people using the CAP model?”.

The research problem then led to each of the following research questions:

RQ1: Can Curriculum be tailored to meet the needs of professional sports people?

RQ2: Can Assessment be tailored to meet the needs of professional sports people?

RQ3: Can Pedagogy be tailored to meet the needs of professional sports people?

The challenge for teaching professional sports people is that they are not used to long periods of time sitting in a classroom, so careful planning was essential in the delivery and course content organisation. This paper reports on the findings from two case studies, the NSW Waratahs and the Australian Rugby 7's, who undertook further education by selected players in 2014 and 2016. Case studies are useful when the “boundaries between phenomenon and context are not clearly evident” (Yin 2003, 13) and is therefore appropriate given the inextricable connection of curriculum, assessment and pedagogy (CAP). Eisenhardt (1989) defines case study as “a research strategy which focuses on understanding the dynamics present within single settings”. Merriam (2009:40) defines case study as “an in-depth description and analysis of a bounded system”. Convenience sampling was used to select these cases with the intention of extending current theory (Eisenhardt 1989) by exploring this phenomena in sporting organisations, with varying organisational contexts. All case organisations were based in one NSW region in Australia (Sydney CBD), students were all paying members of RUPA, and operated in the professional sports sector (rugby). The two cases discussed in this paper were selected as they provided interesting contextual contrast in terms of players, the game and location of delivery.

After the first 2014 delivery of the advanced diploma of management to the NSW Waratah players, academics from the UON business school were able to form a close network between RUPA and the NSW Waratahs players and their business stakeholders. During 2015 and 2016, UON academics were able to use these networks for research, and university student learning. Students undertaking the bachelor of Business or Commerce at the University of Newcastle (Ourimbah Campus) who were undertaking the Work Integrated Learning Unit of Project in Business BUSN3001 are sourced from all disciplines. As part of their learning, they were invited by RUPA and the NSW Waratahs to tour their training facility and to gain an understanding of the running of a professional sporting club where revenue was from members, television rights,

ticket and gate sales as well as merchandise. Due to the close relationship that professional sporting clubs have at Alliance stadium in Sydney, students were also invited to tour the Sydney Roosters facility and talk to the Chief Financial Officer (CFO) regarding the differences in revenue streams by Rugby Leagues clubs. QANTAS also invited the UON students to tour their training facility. The Australian Rugby 7's also invited a student in to research the possibility of a membership base for the 7's. The relationships were now becoming truly reciprocal. This reciprocal collaboration has resulted in students undertaking projects as part of their work integrated learning (WIL) with both the NSW Waratahs and Sydney Roosters. The NSW Waratahs project saw a student review the current membership initiatives and research other possible initiatives.

The case studies of the NSW Waratahs and the Australian Rugby 7's shows that this CAP model suits their style of learning. Students like that the curriculum is designed with their future careers in mind, that the assessment tasks enable them to write business plans and deliver presentations as both a group and as an individual. Finally, the use of guest speakers and excursions compliments the theory learnt in the classroom. The CAP model in particular suits professional sports people not used to spending huge amounts of time in a classroom. The model compliments their physical needs with their educational needs by stimulating them with a combination of classroom learning, guest speakers and excursions, and led to the unexpected external engagement with stakeholders from the University, Sports, and Industry. Truly a win-win situation for all parties.

**Keywords:** collaboration, curriculum, assessment and pedagogy.

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# Truancy in Secondary Schools: A Case Study

Mehri Vosough Matin<sup>1</sup> and Hakan Sari<sup>2</sup>

necmettin erbakan university, Turkey

<sup>1</sup>mehri\_vusugh@yahoo.com

<sup>2</sup>hakansari@gmail.com

## Abstract

Truancy is any intentional unauthorised or illegal absence from compulsory education. It is absence caused by students of their own free will and usually does not refer to legitimate absences such as one related to medical conditions. What makes them to do such behavior? What can we, as adults, do as conditions? These are the questions the researchers wish to find answers in this study. As a disorder, truancy causes many anti-social problems in all societies. Many students are deprived of education. This is a research about truancy in secondary schools in Konya in Turkey. In this study, Case Study Method is used. The researchers interviewed 20 male students selected from 1st and 3rd grades in one of secondary schools in Konya to understand the reasons which reasons made them to escape from their schools. In addition, the researchers will suggest some implications for practice about problems which the researchers believe to solve. Details about the findings of this research will be presented in the congress.

**Keywords:** truancy, school absences, secondary schools, case study, behavioural problems

# Perceptions Vs. Reality in MVPA for College Students

Beth Birky<sup>1</sup>, Sarah Wall<sup>2</sup> and Elaine Gard<sup>3</sup>

Eastern New Mexico University, USA

<sup>1</sup>beth.birky@enmu.edu

<sup>2</sup>sarah.wall@enmu.edu

<sup>3</sup>elaine.gard@enmu.edu

## Abstract

The primary purpose was to investigate Early Childhood Educator (ECE) students' perceptions of their own physical activity (PA) levels while supervising preschoolers on the playground; additionally examining preschoolers PA levels during playground time. ECE students cite lack of training in PA/physical education as a barrier to promoting PA to preschoolers on the playground, and perceive safety and supervision as their main role rather than the promotion of PA (Lanigan, 2014; Wright, 2013). Twelve ECE students were given instructions to engage with the children and to support safety. ECE students were questioned as to their perceived moderate to vigorous physical activity (MVPA) prior to wearing an Actiheart® monitor during three sessions on the playground. Ten of the ECE students believed they would maintain MVPA levels for the majority of the outdoor session but only 36% engaged in MVPA at all, most for only a short time. ECE students have inaccurate perceptions of their level of physical activity while on the playground and are not stimulating high levels of physical activity in the children during playground time. Preschoolers (15 males; 14 females) were videotaped over 13 sessions and PA behavior analyzed using System for Observing Play and Leisure Activities (SOPLAY). Preschoolers were only in MVPA an average of 55% of the playground session. Previous studies have shown that preschoolers mimic the behaviors displayed by adults (Dyment & Coleman, 2012; Gehris, et al. 2014). However, when the ECE's perception of PA and the actual PA does not coincide, the preschoolers are not receiving the adequate example needed to engage in MVPA for the recommended time each day. This study emphasizes the need for Teacher Education programs to include more information on motor skills, PA, and MVPA to the current undergraduates studying to become teachers.

**Keywords:** early childhood educators, teacher education, physical activity, moderate to vigorous physical activity, preschool activity levels

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# Examining Teachers' Readiness for Using Technology in ECE in Turkey

Ozge Ozel

University of South Florida, USA  
ozgeozel@mail.usf.edu

Nowadays, technology has become an indispensable part of our lives as well as education, and majority countries are striving to catch up recent changes in technology and integrate it with education. "In Turkey, like many other countries in the world, the implementation of educational technology is the central focus right now" (Kurt, 2010, p. 68). The potential and promise of technology to promote enhanced learning has growing support in the research literature. Holden and Rada (2011) have noted that actively using technology as an educational tool in classrooms helps to make learning more effective. The results of their study also showed that teachers' attitudes have a major role in the effectiveness of technology use in schools. Confident teachers who are early adopters of technology into instruction can positively affect students' academic achievements. Thus, the purpose of this study was to examine teachers' readiness to use technology in early childhood classrooms in Turkey.

This study is significant to determine the level of teachers' readiness to use technology in early childhood classrooms and their attitudes towards using technology as educational tools in the classrooms in Turkey. For the purposes of the study one kindergarten teacher who is working in Turkey currently was selected as a participant, and was conducted in interviews via Skype. She is living in a small city that is located in the middle of Turkey. She is teaching at a public kindergarten classroom, and her students are 6-years old. In addition, she has 5-years teaching experiences. The results showed that although Ministry of Education in Turkey has been creating project to improve technology integration in early childhood classrooms, and providing classrooms with technological devices, teachers are not ready to use technology as educational tool because of different reasons such as preparing at university levels, age and personal attitudes towards technology.

**Keywords:** technology, early childhood education, teachers' readiness

## Introduction

There is a new period that began in Turkey with Catching the Era in Education in 2000 Project. "In this characteristic period underpinning the preparation for the new century, information technologies were used in order to actualize transformation in the field of education. For this reason, work in this period was directed toward generalizing the use of information technologies, primarily in primary education toward integrating them into the system (MEB, 2002; MEB, 2004 via Yilmaz 2011).

The Ministry of National Education (MONE, 2001) in Turkey initiated many changes in technology in education. For instance, each school is equipped with computer laboratories and the Ministry provided internet connections in schools. In addition, the

Ministry of Education instituted a program to provide each student with a tablet to enhance their education in Turkey. For now, there are some pilot areas for this distribution.

On the other hand, there are a variety of uses for technology in education, and numerous studies have been conducted on its usefulness. The results of studies showed that teachers' attitudes have a major role in the effectiveness of technology in schools. Using technology as educational tool in schools can positively affect students' academic achievements if teachers are able to use technology as educational tool in the classrooms. Holden and Rada (2011) stated that actively using technology as educational tool in the classrooms helps to make learning more effective, and using technology is also related to teacher's confident.

As a researcher, I think this topic is very significant because technology is the most important key point that is growing in education day by day. There are both advantages and disadvantages to use technology as educational tool in the classrooms which have been discussing by researchers and specialists for years. On the other hand, Turkey is trying to catch up European standards in education, thus, Ministry of Education has changed and improved many things in educational system in the past ten years. However, Fatih Project was the most significant attempt to develop using technology as educational tool in the classrooms for both students and teachers. From my perspective, even if providing teachers and students with technological devices is important, preparing them to use it actively and effectively is more significant. Thus, I would like to focus on teachers' readiness to use technology as an educational tool in early childhood classrooms in Turkey.

### **Purpose of the Study**

The purpose of this study was to examine teachers' readiness to use technology in early childhood classrooms in Turkey. This study sought to answer the following questions:

- 1- Are in-service kindergarten teachers ready to use technology in early childhood classrooms in Turkey?
- 2- What are teachers' attitudes towards using technology as educational tools in early childhood classrooms?

This study is significant to determine the level of teachers' readiness to use technology in early childhood classrooms and their attitudes towards using technology as educational tools in the classrooms in Turkey.

### **Review of Literature**

#### **Early Childhood Education in Turkey**

Since 15<sup>th</sup> century, from Ottoman Empire, young children received an education. There were some schools called "sibyan okullari" which means "kids schools" when Fatih Sultan Mehmet was sovereign. When Turkish Republic was established there were 80 kindergartens in Turkey. In 1927, the first college for preschool teachers was

established in Ankara, Turkey. Now, most of universities in Turkey serve teachers candidates to get education in early childhood, and all of the elementary schools have to have kindergarten in Turkey. In addition, four years ago, going to kindergarten became mandatory for each child 6-years old by Ministry of Education.

Ten years ago, parents were not paying importance early childhood education because they were thinking teachers as caregivers of their children to meet their children's basic needs in the kindergartens, and they were sending their children if they were working full-time as they thought that kindergartens were only spending time and getting day-care for their children. However, when some of scientists proved that children who got early childhood education are more successful in their future academic lives than others who did not get, parents realized the importance of early childhood education, and become more conscious. Dongel and Sogutlu (2009) provided this statement with a quote "Studies elsewhere, confirmed in Turkey, show that the pre-school attendance has an impact later in life on important factors such as literacy, health, intelligence, subsequent education obtainment and employment and even income levels (OECD, 2008)" (p.162). Nowadays, most of parents provide their children by getting education during early ages.

### **Technology in Early Childhood Education**

The structure of the present Turkish education system consists of preschool education (6-7 years), elementary education (7-10 years), secondary education (10-14 years), and higher education (14-18 years). In preschool education, there are some technological arrangement as well as in other levels because as Kalburan, Yurt and Omeroglu (2010) state, the children in the younger ages are eager to learn and use technology. Thus countries have started to give more importance on technology in Early Childhood Education. According to Akkoyunlu (2002), "In Turkey, the use of educational technology in schools has been taken very seriously by the Ministry of National Education since the 1930s" (p.165).

Kurt (2010) said that "in Turkey, like many other countries in the world, the implementation of educational technology is the central focus right now" (p.68), and while Turkey is developing new approach in education specialists based on UNESCO standards. Akbulut, Odabasi and Kuzu (2011) claim UNESCO's ICT integration includes:

- 1- Content and Pedagogy (Teaching-Learning Methods and ICT in the Curriculum)
- 2- Collaboration and Networking (Professional Developments and Learning Communities)
- 3- Technical Issues (Infrastructure, Ease of Use, Access and Technical Assistance)
- 4- Social Issues (Healthy, Ethics, Policies, and Special Needs)

### **Teachers' Attitudes and Readiness on Technology**

Technology and education system cannot be separated (Gok and Erdogan, 2012). Technology has a significant role to improve education, thus educators need to integrate technology and education (Akkoyunlu, 2002). All teachers, educators, researchers, in fact individuals should be able to access, use and create new and

updated information. In addition, informational technology is changing dramatically because of development of internet (Isman and Eskicumali, 2001).

According to Kurt (2010), focusing on educational technology is one of the biggest current problems in teacher education, and teachers are not able to catch up new technology in their teaching, thus they use technology in negative ways. He also claims that technology is significant so both teachers and students must learn about technology and its impacts on education.

On the other hand, Yilmaz (2011) stated that Turkish Education System has an increase in the use of the technologies by teachers, as in other countries, but the level of integration of technology in classroom activities is not adequate. Kurt (2013) classified teachers' use of technology into two groups: educational and non-educational including:

- 1- Administrative Use
- 2- Teaching Technology: Students learn about the knowledge related to technology, especially computers
- 3- Non-educational Use
- 4- Instructional Preparation
- 5- Teacher-Directed Instructional Delivery
- 6- Student Homework Preparation
- 7- Instructional Assessment

Although Yilmaz (2011) stated that there is an increase in using technology by teachers in the classrooms, Kurt (2013) claimed that teachers did not reach expected level. When the ways of technology listed above are revised, deficiency can be seen clearly. Unfortunately, teachers are not integrating technology in the classrooms actively. They just use it to access knowledge, prepare for classroom, and assess the assignments etc.

When recent researches are revised we can clearly see that technology is developing in Turkey's Educational System. However, when we consider the state of technology in Turkey and teachers' readiness, the results indicate that even teachers use technology for educational purposes such as preparing for classroom activities or assessment, they do not integrate technology as much as they are supposed.

According to studies, there are three reasons why teachers are not ready or eager to use technology in their classrooms. First of all, they were not given information about how technology is used in education at the universities, nowadays; preservice teachers are taking a class about technology in education. Moreover, teachers think that using technology is wasting time because most of teachers are not aware of how they can reach information by using it. Finally, unfortunately, most of schools are not provided with technological tools in Turkey. However, Ministry of National Education has started to provide students and schools with technological devices. At this time, the most significant fact to develop the state of technology in Educational System to provide pre-service and in-service teachers with classes or seminars about how they can integrate technology and education.

Summak, Baglibel, and Samancioglu (2010) measured the technology readiness of the primary school teachers in Turkey, and the results of this study showed that teachers' technology readiness level is not high, while Gok and Erdogan (2012) show that teachers are able to use technology especially using internet for educational purpose. However, there are two different methods about using technology for education: for educational purpose (inactive), for education (active). The problem in Turkey is that teachers have started to use integrate technology for educational purpose, but they do not engaged it with curriculum.

Akbulut, Odabasi and Kuzu (2011) said that teachers need to develop new strategies to integrate technology in the classrooms because they claim that majority teachers were not prepared for educational technology at the universities, thus most of them are not able to include technology in the classroom activities. Kurt (2013) supports this idea by stating that from the teachers' responses, it appears that teachers do not feel that they are ready to use technology.

### **Children's Attitudes about Using Technology**

For children, using technology in education plays a very crucial role, because technology makes learning easier and more enjoyable when teachers combine teaching and technology. Teachers can provide students with many opportunities by benefiting from technological advantages because most teachers do not prefer to give different option to student for preventing wasting time, however, technology gives a chance teachers to offer various options in a limited time.

NAEYC states that the integration of technology for learning is one of the many elements that support the cognitive and social abilities of children; however, it has emphasized that computers should be replaced with valuable learning centers such as block, art, sand and water games, books dramatic game or discovery spaces in classrooms, from this perspectives early childhood teachers should benefit from the use of computers in education programs. Teachers could follow the developing world by applying technology in their classroom.

In addition, all children's including different level (gifted or disabilities), culture, language etc. cannot be met at the same time. In this respect, technology creates an opportunity for teachers and students in different levels to have different options. This means that all children could have equity education with technology.

On the other hand, when we consider and compare United States and Turkey we can see the difference clearly. Unfortunately, even though in both countries, most children and people are aware of how they can use technology actively and properly in their education and social life, in Turkey, even adults are not able to use it. I think that it is related to culture. As Browniee and Berthelsen (2006) stated: "all students, including early childhood students, come to any learning situation with beliefs, abilities, knowledge motivations and personality traits that are part of the component of the model called 'personal presage factors'" (p.22). I believe that most of parents and teachers, especially graduated before 2000 from universities and currently working,

were not taught how to use technology as educational tool. Both teachers and parents are not able to teach for role model for young children. This is a very significant limitation for using technology both in the classrooms and in social lives.

## **Methods**

### **Research Design**

According to Denzin and Lincoln (2005), to bring an in-depth understanding of human behavior, attitudes and reasons the most useful method is the qualitative research method which is used for many different academic disciplines, especially in the social sciences. The qualitative method is described as the “inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting” (Creswell, 1998, p. 15).

In other words, qualitative study is the researcher’s ability to use words to explore and explain a social problem. Even though Ministry of Education has the number of teachers who have technological devices in their classrooms this study is looking for their usage of technology and attitudes to use technology in their classrooms. Thus, as Mayan (2009) stated that “qualitative researchers want to know the story behind numbers” (p.10), this study, the qualitative method is appropriate for exploring teachers’ readiness about using technology as educational tool in early childhood classrooms in Turkey.

Furthermore, Mertler (2012) claims that if the researcher’s approach shows that the research topic is broad, holistic and interpretive, the related body of literature is familiar with qualitative studies, and the research needs to involve in-depth study, the researcher should apply qualitative research. For this study, the sources chosen for the literature review were mostly related to qualitative research, thus qualitative method was chosen for this study due to the broad nature of the topic and desire for an in-depth study.

For this study, interviewing was chosen as a data collection method because as Lichtman (2013) stated that interviewing is the primary way that qualitative researchers gather data and it gives chance them to have conversation and learn in-depth information about what s/he is searching about. In addition, Ponterotto (2005) stated that

*“postpositivizing may include the use of semi-structured interviews that are literature driven, detailed, and standard from participant to participant; the selection of the complete sample before the study rather than the incorporation of theoretical sampling; the establishment of theme categories before the study and the attempt to code interview data into these categories; or the calculation of the number of participants who are represented in each theme” (p.127).*

In this study, interview was “online interviewing” via Skype as the participant lives in Turkey. This type of interviews also gave chance to the researcher to engage in a dialogue or conversation with a participant as well as other interview types. Although it was online there was not a disadvantage about getting information from participants. The interview was semi-structured and had two types of questions: “opinion questions” about what she thinks about using technology as educational tool in early childhood classrooms, and “experience questions” that helped her to share her experiences about using technology in classrooms and during her own education.

### **Sample**

For the purposes of the study one kindergarten teacher was selected as participant from a city in the middle of Turkey. She is teaching at a public kindergarten classroom, and her students are six years old. In addition, she has five years teaching experiences.

DePaulo (2000) stated that a key point when conducting qualitative research is that the sample must only be big enough to assure that collected data mentions most or all of the perceptions that might be important. Lichtman (2013) stated that “Most qualitative research studies use a small number of individuals and cover material in-depth. It is quite common to see studies with fewer than 10 respondents; sometimes only single person is studied” (p.193). Thus, only one participant was enough for this study. In addition, Morrow (2013) said that “within every research project, there will be “outliers,” people whose answers are either false or are well beyond the statistical mean, or average” (paragraph. 3). To avoid this fact, the participant was informed that this study needs only her contribution, and there were not correct or wrong answers.

### **Procedure**

Interview began with an explanation of the purpose of this study and its importance by an interpreter under the heel of researcher. Then, potential participant was asked whether they would like to participate in this study, and her permission was obtained. Interviews began with five demographic research questions and continued with detailed questions. Participants had unlimited time to answer questions and could choose to opt out of answering questions. Interview concluded with extra information and examples about the topic provided by the teacher and appreciation for participation expressed by researcher. The interviews lasted 40 minutes. She ended it she want and/or had unlimited time to answer the questions.

The interview was done via Skype, and although it was conducted peer to peer there could be problems as Schmieder (2011) claimed that every one cannot be comfortable talking on Skype. Thus, to prevent these kinds of problems the participant was informed that she was going to be interviewed via Skype before setting time. On the other hand, to prevent technological problems, extra devices such as tablet and cell phone are ready to use during interview, and participant was asked to have extra technological devices if it is possible.

The data was collected with a voice recorder. The questions allowed participant to explain their opinions, thoughts and experiences. After two weeks, for member checking

list, data was transcribed and the participant was asked to verify what she said, and provide any additional comments via e-mail.

### **Data Analysis**

Mertler (2012) indicates that “the analysis of qualitative data involves a process of inductive analysis” (p.157). Accordingly, to analyze the data, inductive analysis will be applied. An inductive analysis will be used for the analysis of this study to reduce the volume of information collected. This strategy will help me to organize the data into themes and to construct a framework in order to present the information.

This study has descriptive validity as data was collected from participant’s interview. Data was accurate, believable, and trustworthy. In addition, according to Mertler (2012), member checking defined as “sharing of interview transcripts, analytical thoughts and drafts with participants to make sure the study reflects the participants and their ideas accurately” (p. 74) was used for ensuring reliability.

For data analysis as the interview was completed, the researcher listened to the tape and transcribed the interview as Gibson and Brown (2009) said that “Transcription is not just undertaken in order to serve as a guide to data; it is also a way of analytically working through some problem or other in relation to data” (p.111). The first step was to reduce the large amounts of narrative data such as the information was given by teachers, explanations of the other factors affecting their usage of technology in classrooms, as well as for educational tool loss in the form of interview notes.

Then, data was collected and eliminated from narrative information, Second step was coding the data that was transcribed and translated to create a category that is used to describe a general feature of data; a category that pertains to a range of data examples (Gibson and Brown, 2009), and they claimed that it is very common for researchers to associate coding with interview methods. Thus, I started to find themes for my coding scheme. During this time, I asked myself these following questions as they recommend.

- 1- What are main areas of interest and themes?
- 2- What kind of picture am I developing through my categories and codes?
- 3- How do I know if a code is relevant to my research questions?

To determine my codes, I reviewed literature that are related to using technology in early childhood education and teacher readiness to get some ideas about which codes I could use for my data. Then, I decided my codes as Teacher’s Academic Background (TAB) to look teacher’s academic background about how they were educated using technology as educational tool in early childhood classrooms, Teacher’s Using Technology (TUT) to explore how much she uses technology in her classroom currently, Teacher’s Technological Devices (TTD) to find out current technological devices that she is using for education, which were provided by both government and school district, Teacher’s Attitudes about Fatih Project (TAF) to explore her thoughts and attitudes about Fatih Project that is new project to provide each student from kindergarten to high

schools with a tablet, and provide each classroom with technological devices such as smart-tables, laptops, and projectors.

## Findings

- 1- Teacher's Academic Background (TAB): The teacher said that teachers who graduated from university after 2000 were educated about using technology in early childhood classrooms, and she stated that she had chance to practice it during her internship at university.
- 2- Teacher's Using Technology (TUT): She claimed that she is actively using technology in her classroom for preparing her daily-plan, during classroom activities, and after class for assessing children and their activities.

*"I use my laptop and connect the projector. I usually use it for music games, dramas and other activities that include music. In addition, I use projector for my weekly plan to show parents each week. On the other hand, some documents we use have their own DVD's, and we use it during the activities which are very helpful for students because the class is directly related to the games or activities the DVD's have. When the technological tools in my classroom break down this affects my teaching process negatively".*

- 3- Teacher's Technological Devices (TTD): She said that neither Ministry of Education nor School District had provided her classroom with technological devices. She said that she contacted her students' parents and bought a projector for her classroom, and she said she is using her laptop for activities. Even though the classroom has a computer and TV, she stated that they were not working unfortunately. Whenever she asked for new technological devices, she got same answer: "no sufficient fund".
- 4- Teacher's Attitudes about Fatih Project (TAF): She claimed that she thinks positively about Fatih Project because every student needs to catch up technology. However, Ministry of Education was not able to finish providing technological devices on time, and some of teachers may need additional supports about using technology.

*"I believe that this project will be very helpful for educational development in Turkey. However, I believe that Ministry of education should give some seminar for teachers to teach them the way for using technological devices in the classrooms as this project includes many different technological tools such as tablet and smart tables which may not be used by some of in-service teachers before. For instance, I have not used smart table before. Thus, I may not be able to use it for a while if my class had it. I am not sure; there can be some disadvantages about using technological tools such as smart table and tablet in the classrooms but because I have not had any experience I cannot make any comment about it."*

Overall, she said that she is trying to use technology in her classroom and she was ready to improve her ability, but some of the teachers may need to get additional support for using technology as educational tool in early childhood classrooms.

## **Conclusion**

The results showed that teachers are not ready to use technology as educational tool in the early childhood classrooms. Based on the results, there are several reasons why teachers are not ready. For instance, pre-service teachers in Turkey do not take any course to prepare themselves and improve their skills to use technological devices as educational tool in the classrooms actively. In addition, most of teachers who are graduated from universities before 2000 are not eager to use technology as they wanted to abide by traditional methods while they are teaching. In addition, most of classrooms, especially in low socio-economic communities, are not provided with technological tools, thus, teachers are not able to use them. According to results, at this point, unfortunately, Ministry of Education does not provide classrooms with technological tools. However, participant also claimed that some of teachers are trying to improve themselves by using their own technological tools and devices in their classrooms.

## **Limitations and Implications**

As the study has only one participant we cannot generalize results for all teachers. In addition, as her classroom has not been provided with technological tools by Ministry of Education she could not give quite examples from her experiences as she has not engaged with some of technological devices such as smart board.

For implications, I would give a recommendation for Ministry of Education to provide teachers with seminars about using technology as educational tool in the classrooms. On the other hand, teachers should be eager to learn how to use technology in the classrooms and improve their skills.

# Gamification and Training

James Witte<sup>1</sup>, Robyn Westbrook<sup>2</sup> and Maria M. Witte<sup>3</sup>

College of Education  
Auburn University, USA

<sup>1</sup>witteje@auburn.edu

<sup>2</sup>rgw0001@auburn.edu

<sup>3</sup>wittemm@auburn.edu

## Abstract

A game is simply an engaging activity where players interact, governed by a set of rules, receive feedback, and produce quantifiable results. The process may also elevate the emotional levels of the participants. "Gamification" is using game-based mechanics to engage, motivate promote learning and solve problems. This abstract will address the history and background of gaming, gaming in the work setting, gaming in an educational setting, and the future of gaming. These concepts provide additional reasoning behind and critique of current and future Federal Aviation Agency (FAA) training efforts.

These processes and procedures involved in producing a game-based training program has significant effects for Federal Aviation Agency air traffic controllers. Air traffic control in the United States began at the St Louis, Missouri airfield in 1929, when Archie League stood by the runway waving a red flag (meaning hold) and a checkered flag (meaning go). From that humble beginning, a modern system of air traffic has evolved and continues to reach new heights in complexity, demanding equally new training innovations based on gamifications so that the air traffic controllers may serve the public in the best way possible.

The practice of "gamification" is of interest to professionals and leaders in academia, business, engineering and health. Coined by a British computer programmer and inventor Nick Pelling in 2002, the term gamification only began to be widely used in 2010 and referred to the reward aspect of software games (Kamasheve, Valeev, Yagudin, & Makismova, 2015). Since then, the term has evolved to encompass many environments. Some marketing companies use gamification as a tool for customer engagement. An example is customer loyalty programs and discounts to those customers who participate in incentives available through apps (Kleinberg, 2011). Gamification techniques can be applied to any learning application in any industry, from the military, to business, to education.

Gamification in the workplace is typically multi-faceted. It may involve widely diverse areas like sales training, job training, customer service or even project management. In addition to its flexible content, the use of gaming is enhanced by the use of e-learning venues. Given its positive attributes, the question remains: Is gaming prevalent in the workplace? In response to that question, Penenberg (2013) indicated that the list of corporations engaged in gamification is practically endless. Businesses such as Google, Microsoft, Cisco, Deloitte, Sun Microsystems, IBM, L'Oreal, Canon, Lexus, FedEx, UPS, Wells Fargo and others are using games to engage workers and as a result are more

satisfied, better-trained, and focused on their jobs, as well they are improving products and services. Specifically, Google and Microsoft have created games to increase worker morale, quality control, and productivity. Canon's repair technicians have learned trade skills by literally dragging and dropping parts into place on a virtual copier. Cisco has developed a "sim" called myPlanNet, in which players become CEOs of service providers. Gaming strategies are being used to enhance virtual global sales meeting and call centers which has reduced call times by 15 percent and are improving sales by 8-12 percent. IBM created a game that allows players to manage and run entire cities. L'Oreal created games for recruiting purposes and for gauging the skills of potential employees and helping them discover where in the corporation they would most like to work. Sun Microsystems has games for employee training. Lexus safety tests vehicles in a sophisticated driving simulator at its Toyota research campus in Japan. FedEx and airlines deploy game simulations to train pilots. UPS has its own version for new drivers and one game simulation mimics the experience of walking on ice. Penenberg also supported Entertainment Software Association's claim that 70% of major employers use interactive software and games for training.

It should be noted that gamification in the workplace is not necessarily an attempt to create a true reality, rather it is a means to engage the learner in a competitive activity where skill and knowledge result in an evaluation where an individual's performance can be compared one or more other players. Simulations, a forming of gamification, are common place throughout industry. Hi-fidelity manikins representing patients are routinely used to train nurses and allow doctors to perform surgery by looking at a computer screen rather than the patient. Airline pilots can qualify to fly a new type of aircraft in a simulator and the first time they touch the controls of a real aircraft is on a scheduled flight.

Gamification is also occurring in educational settings. Watson, Hancock and Mandryk (2013) showed that non-intrinsically motivating self-study activities can be turned into engaging experiences by introducing gamification. The researchers rewarded students with virtual currency, which they could invest into planting flowers and trees. After a certain period, the flowers and fruits could be harvested, which was accompanied by a visually rewarding explosion of stars. The gamification system also employed content unlocking, a complex point system, which provided a vast number of choices and social mechanisms such as watering other students' gardens. Thus the system successfully addressed the player's needs as described in the self-determination theory, i.e. competence, autonomy and relatedness.

There are intrinsic benefits to gamification in education. These benefits include students feeling ownership over their learning; a more relaxed atmosphere in regard to failure, since learners can simply try again; more fun in the classroom; learning becomes visible through progress indicators; students may uncover intrinsic motivation for learning; students can explore different identities through different avatars/characters; and students often are more comfortable in gaming environments.

In support of these benefits, there are three main ways that gamification can be applied to a learning environment. These include adapting grades, changing the classroom language, and modifying the structure of the class. Instead of solely using letter grades, there might be a ladder of experience points (XP) that the student climbs. These experience points might then translate to letter grades that are assigned based on how many points each student has accrued. With respect to changing the language that is used in the classroom, completing an assignment might be referred to as “embarking on a quest.” To gamify the structure of the classroom, a teacher might organize students into teams that work together to complete tasks and score points. A structural narrative can also function as a strong motivator and as reinforcement for the learning material, especially if the narrative fits the learning content. A unit on world geography, for example, might divide students into teams of explorers that are each assigned a country to explore and report back to the class.

The future of gamification is yet to be defined. There is strong evidence that the use of gamification in both education and training environments will continue to evolve and thrive. Wider applications such as found in the game “The World without Oil” which addressed potential world-wide problems. As gamification continues to grow, there should be room in the overall pro/con discussion for reflection and academic investigation as a means to identify best practices, application, and value of gaming in education and the workplace. If gamification is misused, it can lead to exploitation. On the other hand, properly employed gamification can result in added learning value not realized in other teaching/learning settings.

**Keywords:** gaming, gamification, education, training

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# 21<sup>st</sup> Century Trends for Workforce Development

Lena Denise Fielder

College of Education  
Auburn University, USA  
ldf008@auburn.edu

## **Abstract**

Creating a workplace setting that would incorporate 21st-Century Trends in Workforce Development is an invaluable topic and process because we are asking our businesses, companies, organizations and public and private educational institutions at all levels to meet these growing demands. While striving to cultivate the workplace setting, these trends will also assist in bridging the gap between the four generations that are currently working in the labor market. Also, these trends will guide the direction for economic impact on global, federal, state and local levels. The trends that are affecting our society and economic development are recruiting skilled workers, flexibility in the workplace, and technology innovation.

The ability to recruit skilled workers has declined because occupational requirements have changed and employees now need more formal education and training. The United States Department of Labor (1999) states that “while many workers will continue to be in occupations that do not require a bachelor’s degree, the best jobs will be those requiring education and training.” (p. 4). Understanding this shift in the restructuring of occupational requirements leads to the discussion of how do we address the issue of recruiting skilled workers, how do we attract the Generation Y and how do we retain the Baby Boomers already in the workforce?

First, we address the issue of recruiting skilled workers by soliciting buy-in from organizations to restructure their employee’s training development and learning frameworks to include informal learning along with formal learning (Dann, 2012). Within this framework, Dann (2012) took the approach that learning frameworks should provide a holistic approach to meet the demands of the 21st-century workers. Next, it was recommended to evaluate the organizations to ensure the skilled workers will be able to compete at global, federal, state and local levels. In 2011, Ouye stated that “a looming shortage of skilled workers will require both the embrace of Generation Y’s distinct workstyle expectations and, also, the active participation of older worker” (p. 4). So, to recruit the Generation Y group, employers must be able to embrace their unique ability to multi-task, non-traditional settings, and to be equipped with the latest technology (Ouye, 2011). The Baby Boomers need financial stability, health care, satisfaction with the jobs and work environment and are focused on consideration of family (Symer & Pitt-Catsoupes, 2007). The means to recruit the Generation Y group while retaining Baby Boomers require different strategies which may leave the labor market with a deficit in recruiting and retaining qualified applicants.

Flexibility in the workplace has become a prominent topic during the recruiting phase of the hiring process. As the work environment has shifted, people are seeking more

flexibility with their work schedules and alternative work situations to meet the needs of their families. Hill, Grzywacz, Allen, Blanchard, Matz-Costa, Shulkin and Pitt-Catsouphes (2008) defined workplace flexibility as the opportunity for the employees to influence when, where and how they engage in the work-related task. To further clarify this finding, McNamara, Brown, and Pitt-Catsouphes (2012) provided the motivators and barriers for implementing flexibility in the workplace. The motivators are to assist with recruitment, influence the organizational performance by allowing them to compete with other organizations during the hiring phase and have employees' best interest at heart (McNamara et al., 2012). The barriers are financial obligations associated with implementing workplace flexibility, concerns about administering flexible options, and various other issues associated with flexible options (McNamara et al., 2012). Although flexibility in the workplace is a great option to offer employees, it is a relatively new concept in the labor market which is still being developing.

Technology innovation has become an integral component for recruiting skilled workers and offering flexibility in the workplace. The trend for implementing the latest technology tools in the workplace has awarded the employer and employees the opportunity to utilize these tools to communicate, store, and manage shared data without having a face-to-face meeting (Ouye, 2011). Also, technology has allowed employees to utilize telecommunication components as a method to establish convenient office locations (U.S. Labor Department, 1999). Offering telecommunication as a component during the hiring phase makes employers appear to favor balancing family dynamics with work obligations. Although the integration of technology in the workplace has offered a lot of advantages for both the employer and the employee, there are some drawbacks to implementing technology. Some drawbacks for integrating technology in the workplace are that virtual office never closes, access to technology is constant and social interaction among employees may decline (U.S. Labor Department, 1999).

Recruiting skilled workers, flexibility in the workplace and technology innovation are three recent trends facing the 21<sup>st</sup> Century Workforce. These trends need to be recognized because they offered great benefits to the employees, but they also may cause undue burdens on the employers. Although, these trends reflect the directions in which our workforce is head it still requires a great deal of research to evaluate their effectiveness and validity within the workplace. Our workforce is moving in the right directions to ensure that the economic development remains intact and produce steady growth while incorporating these trends into our workplace.

**Keywords:** recruiting, skilled workers, flexibility in workplace, technology innovation, workforce development

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# The Moderating Effect of Educational Involvement on the Relationship Between Flow Experience and Vocational Well-being

Deniz Yüncü <sup>1</sup> and Hakan Sezerel<sup>2</sup>

Tourism Faculty  
Anadolu University, Turkey  
<sup>1</sup>dkaragoz@anadolu.edu.tr

Tourism Faculty  
Anadolu University, Turkey  
<sup>2</sup>hakansezerel@anadolu.edu.tr

## Abstract

This study examines the moderating effect of educational involvement (active vs passive) on the relationship between flow experience (cognitive absorption, time transformation, loss of self-consciousness, and autotelic experience) and vocational well-being. The EduFlow Scale and Scale of Psychological Well-Being for Adolescents were adopted for the study. The sample consisted of two groups: the basic cooking techniques course's students (n=70) from gastronomy and culinary arts department and tourism management's students (n=100). The data were collected by face to face questionnaire technique. A pilot study was conducted to evaluate scale validity. Furthermore, partial least squares structural equation modelling (PLS SEM) was applied for data analysis because of the data were non-normally distributed and sample size was small.

Flow experience in teaching and learning in specific areas like music (Custoredo, 2002; 2005) ; computer programming (Wang and Chen 2010), and online- learning . Though, to our knowledge, the flow experience in tourism education is quite limited. Although reducing the experience on education to flow may have drawbacks, it is still a very explicative tool to ascertain the learning experience of the students. In their pioneering religion sociology study, Neitz and Spickard (1990:25). try to comprehend why some people experience flow in religious settings and others not, which practices, institutional structures, and believes facilitate flow experiences and which inhibit it, and how socio-cultural differences play a role in perceptions of flow? In the same vein, we adapt these questions to the educational settings, particularly in tourism education. How some students experiencing flow that impacts vocational well- being? Although there are various responses to this very question, flow literature suggests the involvement can explain the relationship among the flow and well-being.

Optimal experience is a concept emphasize on the individual actions to seek for happiness excluding the external conditions. Deriving upon the optimal experience, a distinguished state was conceptualized by Csikszentmihalyi (1990) called "flow". He describes flow as a state which people so involved in an activity that nothing else seems to matter, for the sake of enjoyment, people pursue that activity even at great cost. The optimal experience then, is characterized as a perceived balance during the activity

between personal skills and situational challenge. Hereby, the flow state as a form of optimal experience enlightens the reason and the function of meaningful experience. Flow exists when the personal skills are equal to required challenges and the performer of the activity is connected to the given performance. (Heo et al, 2010:209; Jackson and Marsh, 1996:17). The research of flow aims to ascertain the state apart from its consequences (the end product) or the extrinsic good provided from the activity but the intrinsically motivated, autotelic (auto: self, telos: goal) activity. The characteristics of flow experience are listed below: (Nakamura and Csikszentmihalyi, 2002: 89).

- Intense and focused concentration on what one is doing in the present moment
- Merging of action and awareness
- Loss of reflective self-consciousness (i.e., loss of awareness of oneself as a social actor)
- A sense that one can control one's actions; that is, a sense that one can in principle deal with the situation because one knows how to respond to whatever happens next
- Distortion of temporal experience (typically, a sense that time has passed faster than normal)
- Experience of the activity as intrinsically rewarding such that often the end goal is just an excuse for the Process.

Nakamura and Csikszentmihalyi (2002: 91) state that every person is able to experience flow in any activity. From ironing clothes to playing chess, the activity varies. It depends on the conditions and the given individual's history. Adversely, activities can bore or create anxiety depending on the same variables. Hence, the subjective challenges and subjective skills, impact on the quality of a person's experience.

Regardless of cultural and demographic differences optimal experiences described in the same way by participants of the seminal study all over the world (Csikszentmihalyi, 1990:4). The studies on flow validates that the concept of flow is universal and can be experienced in any activity, including sports (Jackson and Marsh 1996), tourism and leisure (Coffey and Csikszentmihalyi, 2016), information technology usage (Agarwal and Karahanna 2000).

In this study, drawing on the flow in education literature, four dimensions of flow was adapted. These are; cognitive absorption, time transformation, loss of self-consciousness, and autotelic experience (Heutte et al., 2016).

Cognitive absorption is the state of deep involvement in an activity focused on understanding with –or without– software (Heutte et al., 2016). Time transformation, the experience of complete absorption in the present moment. Loss of self-consciousness is concern for the self disappears during flow as the person becomes one with the activity (Jackson and Marsh, 1996: 19). Autotelic experience: It is a gratifying state of deep involvement and absorption that individuals report when facing a challenging activity and they perceive adequate abilities to cope with these challenges (Heutte et al., 2016).

Aiming to determine the effects of macrolevel social changes on individual's sense of well-being, Ryff (1989) elucidates the given literature and suggests 6 dimensions to operationalize the concept. The dimensions are summarized below: (Ryff, 1989: 1071; Ryff and Keyes, 1995: 720).

- Self- Acceptance is the central feature of the mental health and health as well as a characteristic of self-actualization, optimal functioning, and maturity. The positive evaluations of oneself and one's past life.
- Positive relations with others is posed as a criterion of maturity. Drawing upon the developmental stage theories, this dimension stresses achievement of close unions with others (intimacy) and the guidance and direction of others (generativity). The possession of quality relations with others.
- Autonomy refers to the independence of an individual who focuses on the internal locus of control and connected to her own moral standards, a sense of self-determination.
- Environmental mastery is the extent to determine the ability of an individual to manipulate the complex environments. The capacity to manage effectively one's life and surrounding World.
- Purpose in life predicates the beliefs that give one the feeling there is purpose in and meaning to life. The belief that one's life is purposeful and meaningful.
- Personal growth investigates if the one continue to develop one's potential, continued growth and development as a person.

Other approaches to well-being a balance between the resources of a person and the challenges that person faces. In other saying, psychological, social and physical resources need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the stability of well-being possibly fails (Dodge et al., 2012: 230). Parallel to the flow state, the well-being also depends on the balance with the challenge. In flow experience, the factor sustains the equilibrium is challenge. The perceived challenge of a given task affects both the flow and the well-being.

Optimal experience in flow was characterized by high cognitive involvement. Studies show that the subjects who experienced flow as optimal experience score significantly higher on measures of psychological well-being than those who did not experience flow as highly enjoyable (Clarke and Haworth, 1994). Schmidt (2010: 608) asserts that the active learning environments which students involve relatively more when compared to traditional learning environments stimulates flow experience more. Csikszentmihalyi (1997) also notes that the involvement is related to flow experience and feeling positive. Accordingly, the flow experience has impacts on psychological well-being (vocational well-being in this study) and the active involvement seems to moderate the relationship between flow and well-being.

**Keywords:** flow, tourism education, involvement, well-being

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# Analyzing the Mission of Tourism Management Programs in Turkey

Hakan Sezerel<sup>1</sup> and H. Zumrut Tonus<sup>2</sup>

Tourism Faculty  
Anadolu University, TURKEY  
<sup>1</sup>hakansezerel@anadolu.edu.tr

Faculty of Economics and Administrative Sciences  
Anadolu University, TURKEY  
<sup>2</sup>zguven@anadolu.edu.tr

## Abstract

Tourism education is a unique phenomenon surrounded by various stakeholders with conflicting interests. The interests of stakeholders overlaps in the education given in tourism education institutions. The development of tourism education is therefore vary in the given context. Airey (2008) asserts that the tourism education in a formal schedule started at 1960s as a discrete domain. Drawing upon Jafari's (1990) four platform, he identifies the distinct feature of development process relevant to tourism education in UK. The first one is the industrial stage depicting the economist view in tourism education. The latter one is the benchmark stage that provides education that does not directed to sole pragmatic reasons but also focuses on philosophical and longer term perspective. The last one is so called the mature stage that shows that the tourism education is now in a self-reflecting stage. The stage that deals with the sophisticated issues in teaching, curriculum, and the education strategies. From this point on, it is important to know the developmental process of the educational institutions in different parts of the world and differentiated tourism education strategies. This paper examines the tourism education. The driver of the study is to comprehend the strategies through the universities:

- What are the mission, vision, values, and the purposes?
- Which are the predominant stakeholders?
- Is it possible to determine some patterns in educational approaches?

This study seeks the answers of the questions above via content analysis. The analysis is consisted of value, purpose, and the vision and mission statements of graduate tourism schools in Turkey. The official websites were examined and the data were classified thematically. The sample of the study consisted of 48 tourism management programs. The total tourism management programs in Turkey is 63. Some universities have more than one program in different campuses and some have evening education. Extracting those and the programs in North Cyprus (3 programs), the sample represents the all present tourism management programs in Turkey. The data for the use of the analysis were compiled between January 2015 and April 2015 by the authors. The data were collected from the official websites of the tourism faculties in Turkey. The statements of mission, vision, values, and targets were included in the data analysis. Statements were examined via content analysis. Analysis were conducted by three researchers (one independent researcher as a judge position). The data were examined via content analysis. Drawing upon the content analysis literature (Camprubi and

Coromina, 2016), we conducted the following categories, namely, topical issues, sampling method, objectivity, systematisation, and reliability. A pre-test of the analysis were on the tourism school's patterns according to their generation classification. Then the codes were deduced. The codes were discussed and some categories created. Finally, we reached four basic themes to explicate the missions of tourism programs. The sampling method was to provide data from each university having a tourism program in whole country. In order to achieve objectivity, after coding separately, authors compare the analysis with an independent researcher (the judge) who did not take role as an author in the study. The systematization was provided by the analysis units of the study. There were two main units: the tourism faculties and the tourism management programs. Each unit was examined separately. Then the overlapping statements were identified and consolidated in common categories. The reliability of the analysis were provided via the researchers' and the judge's reviews and the double checking of the data. Table 1 shows the findings of the study.

**Table 1: The Findings**

<b>Themes</b>	<b>Categories</b>	<b>Codes</b>	<b>Frequency</b>	<b>Stakeholder</b>
Knowledge	Theoretical knowledge	Knowledge	57	ACADEMY
		Theoretical	12	
		Academic	12	
		Scientific	17	
		Foreign language	24	
		Tourism	6	
		knowledge		
	Vocational knowledge	Management knowledge	8	
		Information technologies	15	
		Practice	26	
		Training	12	
		Experience	4	
		Practical information	7	
		Manager	50	
Career	Employment opportunities	Manager	50	STUDENT
		Employment positions	9	
		Candidate	17	
		Middle Level	17	
		Manager	16	
		Top Level	16	
		Manager	13	
	Employment positions Students' expectations	Leader	9	
		Entrepreneur	9	
		Human Resources	1	
		Employee	18	
		Workforce	3	
		Qualifications	27	
		Skill	12	
Quality	9			

Themes	Categories	Codes	Frequency	Stakeholder	
Sector	The structure of the sector Sector focus	Tourism vocation	2	TOURISM ORGANIZATIONS	
		Profession	14		
		Career	8		
		Employment in Public	11		
		Employment Ministry of Tourism	6		
		Tourism	5		
		Tourism	<b>79</b>		
		Tourist	4		
		Consumer	3		
		Tourism professional	1		
		Tourism manager	7		
		Tourism domains	4		
		Hotel	11		
		Sector	<b>67</b>		
Paradigm	Modernity	Competition	8	STATE AND SECTOR	
		Values	7		
		Modern	<b>20</b>		
		Scope	Current		3
			International		<b>14</b>
	National		9		
	Local		5		
	Universal		8		
	Social Capital	9			

As seen Table 1, four main themes were found in the study. The first theme deduced from the study is called “knowledge”. This theme was consisted of two conflicting categories. The universities tend to respond the expectations of the other academic institutions in order to gain legitimacy. To amalgamate both the academic and vocational skills were consolidated in a single term: knowledge. This is a conciliatory way of communicating with the stakeholders with different expectations. The second theme found in the study was “career”. The featured categories were employment opportunities, employment positions, and students’ expectations. This theme interplays with the first theme. The career addresses the purposes of the tourism programs. The majority of the programs focus on raising managers of the tourism, particularly hospitality, sector. To the extent of raising managers vary from faculty to faculty. Some refer to the manager candidates, some emphasize the lower positions and some targets the upper management positions. The third theme became “sector”. The sector theme consisted of two categories: The structure of sector and sector focus. The prominent codes were tourism and sector. This theme underlines that the legitimacy of tourism schools were derived from the sector orientation. The final theme called “paradigm”. The highlighted categories were modernity and scope. Both two categories imply that the tourism management programs tend to accumulate social capital and try to synchronize with the current universal education trends. This study depicts the Turkish tourism management programs through website content. The analysis show that vocational education still predominant in Turkish context. Additionally, sector driven,

pragmatic approach to tourism is visible. The mainstream paradigm is careerism and the research orientation and interdisciplinary knowledge creation is quite limited.

**Keywords:** tourism education, mission statements, content analysis.

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# Middle School Computer Science Engagement Through Google CS First

Lucas von Hollen<sup>1</sup>, Jeffery Edelstein<sup>2</sup>, Marcia A. Mardis<sup>3</sup> and Faye R. Jones<sup>4</sup>

College of Communication and Information  
Florida State University, USA

<sup>1</sup>lvonhollen@fsu.edu

<sup>2</sup>je13g@my.fsu.edu

<sup>3</sup>mmardis@fsu.edu

<sup>4</sup>fjones@fsu.edu

## Abstract

This study focuses on efforts to implement the Google CS First curriculum in two middle schools in Fall 2015. Widely used throughout U.S. schools and informal learning environments, CS First is designed to increase confidence, develop educational risk taking, grow perseverance, and provide a sense of belonging within and among learners (Google CS First, 2017). To participate, educator facilitators register, set course dates, and specify the number of participants; Google then provides learning materials and lesson guides. The lessons are taught exclusively online and are designed to require minimal instruction; educator facilitators are most active beginning and end of the CS First learning events to provide feedback on student work and answer basic computer troubleshooting questions. Not only does this learner-driven approach not require the educator to have extensive knowledge of computer science, but also it allows the program to be more accessible to informal learning environments venues such as libraries, clubs, and after school programs.

## Purpose and Research Questions

Other than a pilot study conducted by Google's research division (Goodman, 2014), few researchers have published studies or evaluations of CS First. Google's Scratch programming language, developed and deployed from MIT, is widely documented by researchers for over a decade (Maloney, et al., 2004). However, CS First is unique: while there are many similar self-paced and class-based online coding programs (e.g., Code.org, Pythonroom, Codecademy), those programs do not require CS First's human interaction; it also differs from Microsoft's Technology Education and Literacy in Schools (TEALS) program, which includes fewer online components but more preparation for computer science classroom teachers. CS First requires a school or a "sponsor"; a physical class setting or location; computer access; and a "code guru" (defined by Google as a club leader).

As the demand for computer science students steadily increases (Nager & Atkinson, 2016), the need to understand the usefulness of this intervention for increasing student interest in computing; and exploration of the necessary components for implementing Google CS First in schools makes this study particularly timely and important. This study aims to answer one main research question (RQ) and three underlying questions:

RQ. To what extent does Google CS First engage middle school students in computer and technology-related activities?

RQa. To what extent does CS First engage students behaviorally?

RQb. To what extent does CS First engage students cognitively?

RQc. To what extent does CS First engage students emotionally?

### Theoretical Framework

The researchers used Possible Selves theory (Stake & Mares, 2001) as a framework to align cognitive, behavioral, and emotional engagement with Google CS participants' end-of-module and end-of-unit survey results. This theory posits that possible selves, what a person perceives as potentially possible, drives self-regulation and persistence, particularly in learning environments.

### Research Design

This study utilized a sequential explanatory mixed method design to analyze the student engagement in Google CS First Storytelling unit's four modules. We also explored external factors impacting engagement such as the environment, number of other students in the course, the location, proctor characteristics, and characteristics of teachers who volunteered their classes for the program.

**Participants.** Nineteen participants from School A and 74 participants were drawn from School B, two urban middle "technology" schools primarily attended by underserved populations. Table 1 lists student demographics and school academic indicators.

**Table 8. Participating School Demographics**

Characteristic	School A Tue & Thurs	School B Mon, Wed & Fri
African American students (%)	89.7	53.4
Females: Males (n)	50:50	51:49
Qualifying for free/reduced lunch (%)	63	46
School grade 2015	F	C
Florida reading & math ranking 2015	Lowest 10%	Top 50%

*Source: StartClass, 2017*

### Data Collection

The Google CS First online database automatically compiled end-of-module student survey responses. These surveys included multiple choice and open response questions such as "Do you think you would make a good computer scientist?" The multiple-choice questions pertained to the students' perceived sense of self success in the field of computer science. We manually transferred data to an editable medium in which the data could be sorted. We generated descriptive statistics from students' responses.

### Data Analysis

We used the multiple choice questions repeated at the beginning and the end of the unit for pre/post comparisons. We also used the multiple choice questions as a proxy for engagement because they reflected student retention from the previous lessons.

For the open ended questions, we categorized students' comments by type and extent of engagement (Stake & Mares, 2001). The three main categories of engagement used were emotional engagement (e.g., statement of a positive or negative personal reaction), cognitive engagement (e.g., indication of outside problem solving), and behavioral engagement (e.g., evidence of reaching out for help or offering help). We created a codebook extracted from engagement-related elements in the open response comments. We established inter-rater reliability by coding and comparing a section of student responses

### **Preliminary Findings**

Preliminary findings suggest an interesting picture of the students' engagement in the Google CS First lessons. For example, on several occasions, students who had a very low module completion rate reports a high indication of enjoyment in the open-ended questions; in contrast, other students indicated very low content comprehension and negative comments, but had extremely high module completion rates. Preliminary multiple-choice question analyses suggest a relationship between the students' perceived success and multiple choice answer correctness. This link may be expected given a similar study of students' problem solving that also used the Possible Selves Theory that concluded that self-concept was key to student success (Cross & Markus, 1994); however, the relationship between success and enjoyment requires further study because a large portion of the students who indicated a lack of enjoyment in the lesson also demonstrated high retention and accuracy in multiple-choice questions. Our next steps include student and teacher interviews to explore the relationship between self-perception, enjoyment, and aptitude in CS First.

**Keywords:** google cs first, middle school, computer science, educational technology, engagement

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# Games as a Force for Good: Strategies for Incorporating Pokémon Go in The Classroom

Elizabeth Whitney<sup>1</sup> and Donovan Ross<sup>2</sup>

The University of Kentucky, USA

<sup>1</sup>liz.fettrow@uky.edu

<sup>2</sup>donovan.ross@uky.edu

## Abstract

Pokémon Go is more than just a game – it's a phenomenon. In this era of virtual reality and gaming, it's hard to go to places and not see people playing it. Niantic - The Pokémon Company - and Nintendo released the app in July of 2016, where it quickly reached global popularity being downloaded over 500 million times worldwide. The location-based augmented reality game, compatible with iOS and Android devices, soon took the world by storm. Users of all ages sifted through their real world surroundings in search of the cute little monsters, made visible through their mobile device's GPS capability. Players used their avatar to travel through their setting in search of PokéStops and Pokémon gyms, where in the former they can retrieve items such as eggs, Poke Balls, berries, and the latter serve as battle locations for team-based matches, where a player is able to challenge a leader, gaining more prestige in victory. Pokémon Go was released with mixed reviews, and there is no doubt that despite its popularity and attractiveness to the gaming community, it was surrounded by much controversy for contributing to accidents as well as becoming a public nuisance. Interestingly, as it relates to physical activity outcomes, approximately 45% of Pokémon Go players reported being active for at least 30 minutes per day on the day the app was launched, and many continue to accrue more than appreciable levels of physical activity while gaming. With one in five users of Pokémon Go between the ages of 13 – 17, it would be wise for educators to familiarize themselves with the app. Participants in this session will be given an opportunity to discuss the advantages and disadvantages of gaming, in general, while also weighing in on Pokémon Go, specifically. Also, participants will be asked to discuss the perceived benefits and barriers of Pokémon Go. Finally, participants will be given four specific strategies for using Pokémon Go in the classroom, all of which contribute to learning. Participants will be given an opportunity to weigh in on the feasibility of each strategy and discuss any barriers to implementation. While there is little doubt that we are living in a revolutionary technological era, we can certainly choose to embrace gaming as a force for good in the educational process and create rich and meaningful experiences using those games.

**Keywords:** gaming, pokémon go, technology, strategies, adolescents

# An Exploratory Study: Using Danmaku in Online Video-based Lectures

Xi Lin<sup>1</sup>, Mingyu Huang<sup>2</sup> and Leslie Cordie<sup>3</sup>

Auburn University, USA

<sup>1</sup>xilin@auburn.edu

<sup>2</sup>mzh0066@tigermail.auburn.edu

<sup>3</sup>lak0007@auburn.edu

## Abstract

Using danmaku in online lecture videos may enhance learners' interaction and course entrainment. However, little is known about using danmaku in online video-based lectures. As a result, the purpose of this exploratory study is to investigate the use of danmaku in video-based lectures. Danmaku is a Japanese term for barrage and could be considered "bullet strafe" in the English language. It is a real-time, horizontal, text-based display. This commentary uses subtitles widely used in Animation, Comic, and Game (ACG) videos in Asian countries, especially Japan and China (Wu & Ito, 2014). Some studies revealed that the use of danmaku allows users to communicate and collaborate with others while watching ACG videos and the shared experience often leads to a strong perceived social presence and a sense of virtual community (Zhao & Tang, 2016). Meanwhile, the massive open online courses (MOOCs) have become prevalent around the world. However, many MOOCs offer mainly video-based lectures that limits the opportunity for interactions and communications among learners and instructors compared to traditional resident courses (Wong, Pursel, Divinsky & Jansen, 2015). An inductive content analysis of danmaku from 16 online lecture videos was used for this study. Data were collected from Bilibili.tv, a video-sharing website based in China. It is expected that danmaku could serve as an effective way to enhance learners' interaction, course entertainment, and their learning experience while participating in online video-based lectures.

**Keywords:** danmaku, video-based lectures, online learning, interaction

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# Effective Peer Reviews: Using Eportfolios to Promote Peer Assessment, Develop Critical Thinking, and Foster Collaborative Learning in the Sciences

Leslie Cordie<sup>1</sup> and Michael Wooten<sup>2</sup>

Auburn University, USA  
<sup>1</sup>lesliecordie@auburn.edu  
<sup>2</sup>wootemc@auburn.edu

## Abstract

The use of ePortfolio is not, at present, a common element in instructional models within the Biological Sciences. Biology courses, and indeed many Science courses, include elements that are ideal ePortfolio artifacts - laboratory reports, group research projects, undergraduate research, and field experiences are spread throughout the Biology curricula. Despite the availability of these elements, ePortfolio has only been used in limited ways, primarily with online offerings and as add-on elements for Honors College credit. For this project, we introduced ePortfolio into an upper division Biology course. We outline our approach, observations, and assessment in hopes that it may encourage others to more widely apply ePortfolio and peer review across the Sciences.

**Keywords:** peer review, eportfolio, collaborative learning, educational technologies, peer assessment, higher education

## Methodology

Course -- ePortfolio requirements were included in an upper division Biology course. Students in a upper-level undergraduate Mammalogy class developed ePortfolios artifacts as part of their laboratory assignment. The student group (24) included 21 undergraduates and 3 graduate students.

ePortfolio Instructions – Instructions for development of the ePortfolios were provided using the CANVAS Learning Management System. Links were provided to the University ePortfolio site as an initial starting point for students to begin the ePortfolio. Detailed instructions were posted on CANVAS and a model ePortfolio was created. This model included examples of all four of the required pages and a complete course artifact. A short lecture was presented on ePortfolios in each class and help was provided in person by the instructors when requested and a various times during both courses (ad hoc).

ePortfolio Assignments – The first assignments included developing an initial ePortfolio template that included several pages: Front or Welcome page, About Me page, Course page, and Contact page. Students were guided to Wix and Weebly as preferred platforms.

Each student was assigned two species, one common in the USA and one rarer form from an international region. The students were required to review primary literature to

extract information on ecology, life history, distributions, conservation status, and other characteristics. From this information they developed PowerPoint-based presentations (Species Accounts) using a template provided. These presentations were included as artifacts on their Course pages. In addition, by the end of the semester, each student was required to add a Reflective-writing element to their Course page.

The method of evaluation employed for the Mammalogy class was such that students uploaded links to their ePortfolios into CANVAS. Two students were randomly assigned as anonymous peer reviewers for each ePortfolio and provided a rubric for scoring. The course instructor also scored each ePortfolio and provided comments. The rubric was customized for the course and included general assessment of the ePortfolio and more specific evaluation of the artifact elements. CANVAS also provided a portal for comments. Reviewers were required to complete evaluation of two ePortfolios as part of their final course grade.

### Implications

- Limited pre-existing knowledge of ePortfolio – 1 student
- After initial concern, ePortfolio projects were highly regarded by majority of students
- Access to example ePortfolios for general design and to model artifacts is essential
- Hard deadlines for progress set points critical to ensure quality
- Reinforcement needed during reviews that ePortfolios are intended to be professional
- Anonymous peer review - excellent feedback and constructive evaluation; peer comments were well received and frequently incorporated during revisions; peer scoring often more severe than instructors
- Specialized rubric focused primarily on artifacts provided both critical guidance on content requirements for the student and consistent reference points for reviewers

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# Making ‘Meme’ing: Using Memes to Achieve TPACK in Professional Development

Alexander Ledford<sup>1</sup>, Joshua Patterson<sup>2</sup> and Elyse Ledford<sup>3</sup>

University of South Florida, USA

<sup>1</sup>alexander44@mail.usf.edu

<sup>2</sup>joshuapatter@mail.usf.edu

<sup>3</sup>egard@mail.usf.edu

## Abstract

The broad objective of this session is to examine the impact of the creation and dissemination of image-based ‘memes’ upon emergent forms of virtual professional development communities. The research identifies ‘memes’ as the commonly found image/text amalgamations that appropriate cultural icons (in the semiological sense) and infuse commentary for mostly humorous effect. In response to the growing emphasis on teachers participating in Professional Learning Communities (PLCs), social media sites are seeing an increase in the formation of communities dedicated to serving the same purposes in virtual ways. Given their popularity within these communities, memes’ inherent ability to exemplify all aspects of the Technological Professional Content Knowledge (hereafter, TPACK) model holds much potential. This session aims to discuss the specific results that the meme has had on how teachers of Advanced Placement History courses engage in Facebook-based professional development forums and interact with the TPACK model.

Given the rampant growth of the use of memes in classrooms across the country and the subsequent creation of communities dedicated to their sharing, there has been an obvious extension into professional development. This research is grounded in the ideas of social constructionism, as it focuses not simply on the singular acts of meme creation, but rather on the meaning the memes are given by the community (Paul, 2005). These snapshots incorporate not just the image-based meme itself, but also information on the forum member posting the meme and the community’s reaction evidenced in the associated comments. The combination of visual images and anchorage text in each meme lend themselves nicely to the use of a semiological framework for data analysis.

Since the emergence of the notion that “millennials” (what society has taken to calling those born since 1981) are “digital natives”, many teachers’ instructional practices and curricular decision-making have been geared towards engaging students where they are intellectually and ‘partnering’ with them on the path of their academic careers (Prensky, 2010). One tool often utilized in this is the image/text set commonly referred to as a ‘meme’. This article contends that the processes involved in the creation and promulgation of a meme are ones that are nestled within a larger framework of meaning-making being socially constructed and employed by members of cultural sub-groups. In particular, teachers of specific courses who engage in social media-based professional development groups are appropriating their content and instructional practices and are using memes as their tools to do so. By looking specifically at an

online forum for teachers of a particular course as an example, one finds a community already engaged in their own processes of collaborative meaning-making and who are using employing memes as a means of cultural transmission. By analyzing the purposes behind the sharing of these memes and drawing connections to the pedagogical and curricular practices of the teachers, this research can help to guide practitioners' future decision-making while adding to a currently meager body of literature.

**Keywords** memes, semiology, professional development, TPACK

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# Keeping It Pinterest-ing: Utilizing Pinterest for the Curation of Pedagogical Content Knowledge

Elyse Ledford<sup>1</sup>, Alexander Ledford<sup>2</sup> and Joshua Patterson<sup>3</sup>

University of South Florida, USA

<sup>1</sup>egard@mail.usf.edu

<sup>2</sup>alexander44@mail.usf.edu

<sup>3</sup>joshuapatter@mail.usf.edu

## Abstract

The social media platform Pinterest serves as a space for the curation of images through the creation of digital bulletin boards. These boards serve as a collection space for links to websites, online stores, and other digital content. Using Pinterest, individuals gather visuals that are organized around a particular interest or idea. Pinterest (2013) reports that “500,000 education-related ideas are pinned each day” (para. 2) and its popularity with teachers puts it in the top of educational social media usage. Through digital curation Pinterest serves as an additional offshoot of the resources traditionally made available to teachers. Wherein, teachers have a plethora of strategies, tools, and resources at their fingertips at the site of curation the agency and responsibility for selection of material lies with the teacher and her ability to draw from her base of pedagogical content knowledge (Schulman, 1986). This session explores the ways this wealth of information can be used as a socially constructed site of knowledge as a source of professional development through exchange with others. Making use of Pinterest as a source for professional development requires action beyond simply pinning ideas and recreating them. Understanding how to seek out resources that align with one’s own pedagogical philosophy and beliefs, critically examining ideas for alignment with the needs of students, and the ability to apply knowledge to modify a resource are critical in engaging with this wealth of information in a meaningful way.

Participants will examine their existing educational Pinterest boards (or those of another participant) and identify what made them select this pin as an idea worthy of saving. Through engagement in paired or small group discussion about the reason for selecting pins participants will explore the ways they initially intend pins to be used, while critically questioning the value found in each resource. Whole group discussion will seek to capture keywords used to describe pins with the intent of bringing forth the idea that gathered resources should be purposeful and thoughtfully aligned with learning goals and beliefs. Through discussion whole group participants will evaluate what is reflected about educational belief through these pins and in small groups assess if the curated resources best align with the educational experience they wish to provide to engage in with children and families. This evaluation will engage participants in actively sorting out the resources already collected in order to take steps towards more thoughtful pinning. Participants will explore available resources, evaluate their applicability and alignment with the needs of the children they work with, and create possible modifications to better align a resource with the needs of their class or program. Through whole group and small group discussion participants will have time to reflect on ways to not only select

pins that align with learning goals and philosophies but to move from repeating what others have done to adding in their own professional knowledge to more carefully adapt ideas to meet the individuals in their classroom or program.

Pinterest is a free social media tool with a plethora of resources available to teachers. Through the developed understanding of how to create a collection of high quality resources that address the individual needs of their students and families teachers can make use of this tool from anywhere they have internet access. Such meaningful curation allows for a more productive interaction with other teachers who serve as the more knowledgeable other by sharing what has worked for them. Understanding how to make these ideas one's own moves from reproduction to application of pedagogical content knowledge and moves the learning about teaching deeper. This social construction of knowledge about teaching provides tools for novice and experienced teachers alike.

**Keywords** pinterest, social construction, digital curation

# The Changing Role of Online Instructors: Perceptions and Challenges

Heba Abuzayyad-Nuseibeh

University of South Florida, USA  
pearla.az@gmail.com

## Abstract

The enrollment in online instruction in the higher education institutions is increasing rapidly (Johnson, 2009). Students report that it is more convenient, less costly, and easier to access an online course from anywhere at any time. The boundaries are limited and the material is covered in a smooth way. According to the Online Learning Consortium, *Grade Level: Tracking Online Education in the United States* (Allen & Seaman, 2015) report “the number of students taking at least one online course has grown at a rate greater than that of the overall higher education student body” (p. 12).

In the EDUCAUSE Center for Analysis and Research (ECAR), a 2013 study of *The State of E-Learning in Higher Education: An Eye Toward Growth and Increased Access* survey, data show that one of the top benefits of e-learning for the institution is the increased growth of student enrollment, by giving more accessibility to a wider range of students in spanning a larger geographical area, and also by giving more flexibility for students, which may increase student retention and persistence. The study also shows that “nearly all institutions (98%) have at least some departments, units, or programs with a major interest in e-learning” (Bichsel, 2013, p. 7). Moreover, “(82%) of institutions offer at least several courses online, and more than half (53%) offer a significant number of courses online” (Bichsel, 2013, p. 19).

The popularity of online courses in the past decade and the emergence of universities and schools that offer entire degrees online have motivated a stream of academic research in this area. Researchers studied many aspects of online education including, but not limited to: effectiveness of online education (Nguyen, 2015), comparisons between the outcomes of online education and traditional education (Bethel & Bernard, 2010), and learner’s perceptions of online delivery methods (Smart & Cappel, 2006).

While some argue that teaching online courses requires new set of skills on the instructors’ side (Twomey, 2004), others believe that an instructor can use the same skills that are used in face-to-face (F2F) classes and apply them to online teaching especially if the delivery method is blended in nature (Gold, 2001). This latter view, according to Bennett and Marsh (2002), may work, but it would limit the potential of online learning and the innovative opportunities that come with it.

One of the 2014 EDUCAUSE Top-Ten IT issues list is the development of online courses. Online courses require converting the learning objectives to an online format, in order to best serve the students learning process. Also, helping faculty to integrate instructional technology in their courses. These needs and challenges in online instruction are quite unique. The quality and effectiveness of online courses matters.

According to Bichsel (2013), one of the biggest barriers to adopting online learning is faculty readiness to teach online. Many colleges and universities believe they do not have enough support to prepare faculty to teach online and are in need for more staffing to adequately support e-learning at their institutions. A proportion of 78% of respondents agreed that faculty interest in integrating technology into teaching and determining which technology to use in their courses were the top items for faculty readiness at their institutions.

According to the Online Learning Consortium, *Grade Level: Tracking Online Education in the United States* report (Allen & Seaman, 2015) the crucial question is if the learning outcomes in online offering are comparable to face-to-face. Since, there is no agreed upon measurement of education quality either for face-to-face or for online education, such question remains open

A number of studies have investigated the transition between face-to-face (F2F) and online instruction concerning faculty members (Baran & Correia, 2014; Conceicao, 2006; Coppola, Hiltz, & Rotter, 2002; Major, 2010). Those studies showed that many faculty members do adopt new skills and roles to adapt to the changing delivery method, in addition to building new understanding of the environment including their methods, roles, beliefs. etc. These changes and adaptations potentially determine the chances of success through the transition from f2f to online teaching.

One of the biggest challenges faculty members face is the lack of experience in developing and teaching online courses (Baran, Correia, & Thompson, 2011). Most faculty members find difficulties in using technology to develop their courses, and find the integration between technology and instruction as a stressful process (Fish & Gill, 2009). Some other obstacles originate from having different teaching styles that do not fit the online environment and, therefore, would not address the students' virtual needs to help them achieve their learning objectives (Fish & Gill, 2009).

One of the 2016 EDUCAUSE Top-Ten IT issues list is providing scalable and well-resourced e-learning services, facilities, and staff to support increased access to and expansion of online education. Shea (2007) discusses several obstacles for teaching online that faculty members face, including the larger amount of time required, developing effective technology skills, assistance and support needed, technical barriers, change of roles, intellectual property and ownership concerns, and rewarding issues.

One of the top motivating factor for faculty in integrating technology into their teaching were a clear evidence/indication that the technology integration will benefit the students. The second motivating factor was to have extra time for designing their courses. Other factors were the assurance that the technology will work as intended, and having guidance on the types of technology that are relevant to teaching and learning (Brooks, 2015).

This research is grounded within the theory of connectivism, which is a learning theory for the digital age that takes into consideration the effect of technology on learning and the changing nature of learning in a networked world. In connectivism learning is defined in terms of the nodes and the connections between them (Siemens, 2004)

### **Purpose**

The purpose of this research is to present the results of a pilot study investigating the faculty perceptions towards the transitioning process from face-to-face to online instruction at a higher education institution.

### **Research questions:**

- What have changed to the faculty teaching methods when converted courses - from face-to-face to online format?
- What were the main challenges the faculty faced during the transitioning process?
- What delivery format do faculty prefer to their courses?

### **Sample**

The sample is faculty members who participated in a pilot study for this research at a higher education institution.

### **Instrumentation/Procedure**

A mixed research method was used. A survey that consists of qualitative and quantitative items was administered to the faculty members of a higher education institution.

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# Expedient Methodologies to Inculcate the Crux of Signal Processing Within Students

Yogesh Karunakar

K.C.College of Engineering, India  
askyogi@gmail.com

## Abstract

I have been a pedagogue for nearly two decades, teaching the subjects related to Signal Processing and its variants like, Image Processing, Speech Recognition, Speech Processing for the undergraduate and Post Graduate Courses in India for the past 17 years. Invariably I used to come across students having incessant apprehensions towards the subject of Signal Processing. Over the years I have developed several ingenious methods to make this subject and its variants pellucid for the students so that the phobia for the subject is diminished and learning becomes much more enjoyable and worthwhile. Moreover the techniques which I have rendered for the years have helped students remember, apply and analyze the tools of Signal Processing in their curriculum as well as in their work culture. Some of the Methodologies are mentioned in this paper which I would like to share with fellow pedagogues which might help to change the perspective of teaching and learning of the subject and make students more interested in the subject which plays a major role in Engineering. The methods that I have developed, simply consist of usual toys, school experiment components and some with the help of MATLAB software as a tool. If this paper would help in bringing about some change in pedagogy, it would be a small contribution towards the teaching fraternity.

**Keywords:** pedagogue, pedagogy, signal processing, speech processing, image processing, curriculum, MATLAB software

# The Pedagogical Benefits of Location-based MMO Games

Joshua Patterson<sup>1</sup> and Alexander Ledford<sup>2</sup>

University of South Florida, USA

<sup>1</sup>joshuapatter@mail.usf.edu

<sup>2</sup>alexander44@mail.usf.edu

## Abstract

Instead of viewing geography as a collection of disconnected shapes, students interact with local maps in a more meaningful way while competing in the mobile application QONQR. Once the rules of engagement have been mastered, QONQR's responsive and cumulative nature rewards pupils with a prompt, salient assessment of his/her actions. The mobile application rewards the students' strategic knowledge through social learning, in addition to factual knowledge by way of geographic reinforcement. As a result, QONQR fosters generative processing while working towards a communal goal, allowing the pupil to personalize his/her in-game experience and construct a competitive, engaged classroom culture. Instructors will learn how the game rewards executive functioning, perceptual attention, and spatial cognition - pivotal 21st century skills for success in a global society.

**Keywords:** instructional technology, geography, MMOs

# Digital Technologies in the Synchronous Classroom: Utilizing Video Conferencing to Create Effective Blended Learning

Jane Teel<sup>1</sup> and Leslie Cordie<sup>2</sup>

College of Education  
Auburn University, USA  
<sup>1</sup>teeljan@auburn.edu  
<sup>2</sup>lesliecordie@auburn.edu

## Abstract

Learning in the 21<sup>st</sup> century. What does this phrase mean in higher education today? In this paper we will tackle this question with an emphasis on how digital technologies can be used to connect learners through a variety of delivery methods. The 21<sup>st</sup> century learner and the growth of digital technologies has increased access to learning in higher education and brought new adult learners to institutions across the world. The contemporary higher education learner represents, in contrast to previous generations, a new set of demographics, characteristics, and learning expectations (Johnson, Becker, Estrade, & Freeman, 2014). This change in learner profile includes a desire for flexibility of learning environments and a heightened focus on obtaining skills and credentials of direct value for the workplace (Amirault, 2012; Rajasingham, 2011). The expectations of these learners is that their education should be flexible in terms of access and incorporate the actual technologies needed in the workplace.

When examining possible delivery methods for higher education, there are many choices for both institutions and learners, including face-to-face (F2F), online, hybrid and blended instruction. For this paper, we will discuss blended models of delivery, outline key concepts of synchronous learning through videoconferencing, provide a brief review of the research literature related to digital education, and conclude with best practices for blended synchronous learning, including instructor recommendations and learner engagement strategies.

Various terms in the literature are associated with the concept of blended learning in education (Allen & Seaman, 2013). Most definitions discuss the idea of combining face-to-face instruction with computer-mediated activities (Osguthorpe & Graham, 2003), yet blended learning can also occur via information communication technologies such as videoconferencing (Graham, 2006). Videoconferencing (VC) is a unique blended learning delivery method which uses digital technologies to allow for simultaneous or **synchronous** communication of both audio and video in the classroom. This 'blend' most closely resembles F2F communication and has been called visual collaboration (Gergle, Kraut, & Fussell, 2013) or blended synchronous learning (BSL) (Hastie, Hung, Chen, & Kinshuk, 2010). VC is one of the most promising ways to create a BSL environment in higher education; this form of blended learning connects remote learners to the live classroom, F2F learners and the instructor, by bringing students who are otherwise separated geographically together synchronously (Lawson, Comber, Gage, & Cullum-Hanshaw, 2010).

The blended synchronous learning (BSL) method using VC is defined as digital technologies that connect two or more locations with audio and video links to allow learners to listen, converse, and interact with an instructor and face-to-face classroom learners (McKeeman & Oviedo, 2014). In addition, digital technologies today allow for VC to share content (not just audio and video) from the classroom to the remote learner, and vice versa - from the remote learner to the F2F classroom. This key component of being able to share content from multiple locations provides the BSL environment with the unique ability to simulate interaction and presentation at a higher level of learning beyond the previous methods of VC; therefore, closely resembling the F2F environment (Gergle et al., 2013; Hastie et al., 2010). VC can therefore be an effective tool in BSL because it allows interaction with the instructor, other learners and the content in real-time (synchronously) (Karabulut & Correia, 2008). In addition, VC is a fairly user friendly technology that can be easily managed by learners of all proficiency levels (Smythe, 2005).

The advantages of VC in higher education settings have been documented through the academic research, including reference to accessibility, cost, interaction, and immediacy (Belderrain, 2006; Gillies, 2008; Knipe & Lee, 2002; Martin, 2005; Smythe, 2005; Twigg, 2003; Woods & Baker, 2004). The use of VC provides increased accessibility for students in remote communities (Belderrain, 2006; Gillies, 2008). The opportunity to join an educational institution though VC reduces time and costs for students at remote locations and improves access to learning (Twigg, 2003; Woods & Baker, 2004). According to Gillies (2008), real-time interaction provided by videoconferencing is an advantage over other types of distance education. Students in remote locations are provided the opportunity to engage with peers at other distant locations as well as in the F2F classroom; thus, the students are exposed synchronously to a diversity of perspectives, increasing the potential for critical thinking and learning (Knipe & Lee, 2002; Twigg, 2003). When two or more participants are involved in an educational setting that allows for connectivity, they gain a heightened sense of engagement (Gillies, 2008; Martin, 2005). Also important is the nonverbal communication and immediacy in instruction that is possible through the use of synchronous digital VC and which allows for facial expression and recognition of emotion, such as confusion, and lack of attention. Nonverbal communication and immediate feedback further increases student engagement and decreases the potential for miscommunication (Belderrain, 2006; Smythe, 2005).

While effective in many settings, the use of VC as a major educational delivery method is not without issues. Problems that have been described include negative effects on classroom student-teacher interaction (Koceski & Koceska, 2013), impersonal feeling (Twigg, 2003), and difficulty of sustaining the interest of the remote learners (Martin, 2005). Also, due to the synchronous nature of the interactions, learners do not have the flexibility that is normally associated with asynchronous distance learning in terms of time and attendance. Technical problems (poor connectivity, operator error, software updates) also become issues that can interfere with the instructional outcomes (Gillies, 2008; Koceski, & Koceska, 2013; Vasileva-Stojanovska, Malinovski, Vasileva, Jovevski & Trajkovik, 2015). Other concerns include limitations in conducting proctored exams

and difficulty of contributing to in-class assignments such as presentations (Koceski & Koceska, 2013). Furthermore, when students are adult learners special problems may arise. For instance, the addition of technology into the teaching and learning environment can add an increased level of complexity and anxiety to the experience (Graham, 2006; Koceski & Koceska, 2013).

While such challenges are very real, a variety of instructional approaches are available to permit effective teaching under these conditions. One example is the technique of group discussion. In order to provide the best outcomes, remote learners can be engaged in the discussion by first establishing a protocol for asking questions, assigning remote learners' discussion responsibilities for various readings, or creation of breakout groups (Gill, Parker, & Richardson, 2005). Nonverbal behaviors also become important in the VC environment. Use of direct eye contact, speaking clearly with a slower pace, choice of clothing, and avoidance of rapid movements can all aid in effective VC communication (Cordie, 2016). Employing individual brief tasks and moving lengthy tasks to off-class times can help keep students engaged (Gill et al., 2005). Providing access to moderated chat areas and conducting individualized communication with each remote student can also be valuable techniques for BSL (Cordie, 2016). We also strongly recommend that remote students be encouraged to come to campus at least once per course. If the course includes a presentation assignment, you can encourage remote students to attend class for their presentation to engage the classroom as a community of learners, and make them feel part of the overall learning experience.

In this paper, we will discuss these instructional approaches and others in detail, provide best practice recommendations from the literature, and provide examples from our own experiences. Our goal is to illustrate how these techniques can be applied and we hope to argue that these approaches have value far beyond the immediate classroom. Many of the skills required to be successful using VC are transferrable to other technologies and can be used in the workplace. The communication skills developed using VC are the soft skills that employers are looking for in today's workplace (Deng, Thomas & Trembach, 2014). With ever-rising costs of travel and globalization of industries, individuals trained to be proficient in the use of multi-environment technologies will clearly have career advantages and be more successful in the workplace.

**Keywords:** synchronous classroom, video conferencing, blended learning, nonverbal immediacy

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# Translanguaging as Pedagogy in U.S. K-12 Education: Beyond Monolingual Ideologies

Zhongfeng Tian

Lynch School of Education  
Boston College, USA  
tianza@bc.edu

## Abstract

In the last few decades, the demographic landscape of K-12 students in the United States has changed drastically. Emergent bilinguals are the fastest growing student population across the country, coming from different cultural, linguistic, and educational backgrounds (Baird, 2015). However, while the population and diversity of emergent bilinguals continue to increase, spaces for bilingualism in education have dramatically shrunk due to the privileging of English-only curriculum and the underlying monolingual, xenophobic ideologies (García, 2014). In the growing anti-bilingual education climate, emergent bilinguals have been robbed of the opportunity to use and develop their bi-/multi-lingual ability.

Research has evidenced that using students' home language facilitates emergent bilinguals to better understand new content and further leads to stronger academic outcomes (Collins, 2014; Rolstad, Mahoney & Glass, 2005; August & Shanahan, 2006). To this end, translanguaging as pedagogy, which acknowledges and values students' cultural and linguistic resources, provides a viable approach to support bilingualism and biliteracy, and to make the rigorous standards-driven curriculum more accessible to emergent bilinguals (García, 2014).

Through reviewing six ethnographic case studies which apply translanguaging as instructional practice across different content areas: English language arts, social studies, and science, this paper identifies that by making connections with students' lives and allowing students to draw upon their entire linguistic repertoire flexibly in various learning contexts (e.g., reading, writing, listening, discussing, taking notes, writing reports and essays), translanguaging as pedagogy not only scaffolds students' understanding of new content and language, but also has the transformative power to challenge the hegemony of English to make education more just and equitable to language minorities. As Paris (2012) indicated that translanguaging as pedagogy is a *culturally sustaining pedagogy*, which "supports young people in sustaining the cultural and linguistic competence of their communities while simultaneously offering access to dominant cultural competence", and it seeks to "perpetuate and foster – to sustain – linguistic, literate, and cultural pluralism as part of the democratic project of schooling" (p. 95). Finally, the implementation of translanguaging as pedagogy in classrooms still faces challenges, for instance, how to include monolingual students and the administrative support and leadership at the school level.

**Keywords:** translanguaging, pedagogy, emergent bilinguals

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# A Framework for the Effective Teaching of ESL Vocabulary

Andreea Cervatiuc

Faculty of Education  
University of British Columbia, Canada  
andreea.cervatiuc@ubc.ca

## Abstract

This presentation proposes a framework for understanding and supporting the development of vocabulary in English as a second language (ESL). The target audience for this presentation consists of in-service and pre-service ESL teachers, mainstreams teachers of English language learners (ELLs), researchers, and ESL teacher trainers.

The importance of teaching ESL vocabulary effectively is related to several factors. Vocabulary knowledge is the main predictor of success in reading comprehension, which in turn predicts overall academic achievement. Vocabulary knowledge can be considered the backbone of the various aspects of communicative competence: linguistic, discourse, functional, sociolinguistic, and strategic knowledge. Moreover, proficiency in none of the four language strands, listening, speaking, reading, and writing, can be acquired without a solid lexical foundation. In addition, according to Lewis (1993), language consists of grammaticalized lexis, not lexicalized grammar.

The theoretical underpinnings for this presentation draw on recent advancements in research on second language vocabulary learning and teaching, such as the works of Nation (2001; 2008), Laufer, Meara, & Nation (2005), Laufer (2003), Cervatiuc (2009), Pigada & Schmitt (2006), and Ur (2012).

The presentation will start by addressing the following foregrounding questions:

- How much vocabulary do ELLs need to learn?
- How many words do native speakers of English know?
- How many words are there in English?
- Can non-native speakers of English acquire a vocabulary size comparable to that of native English speakers?
- What is involved in knowing a word?
- How does vocabulary learning occur?

The presentation will then focus on addressing the following key questions:

- How can vocabulary teaching be approached in a strategic and effective manner?
- How can teachers structure their classes in order to accelerate their ESL students' process of vocabulary learning?

Incidental vocabulary acquisition, strategy instruction, and intentional vocabulary learning are equally important for the development of a large vocabulary in English as a second language. However, the emphasis placed on each of them should differ based on the learner's level of English proficiency. Beginning ESL learners would benefit from a focus on intentional vocabulary learning, intermediate learners should concentrate on

acquiring and effectively using various vocabulary learning strategies, while advanced learners should read extensively so that they can acquire a large number of infrequent words incidentally.

The presentation will end by analyzing the following components of effective ESL classes from a lexical perspective: meaning-focused input, meaning-focused output, language-focused learning, and fluency development. It will also provide examples of classroom activities for each of these components.

**Keywords:** ESL, vocabulary, effective vocabulary teaching, lexical framework.

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# Young Adults Attitudes on Past Experiences with Foreign Language Education and Aspirations for Future Generations

Kylie Ross

University of South Florida, USA  
kylieross@mail.usf.edu

## Abstract

Foreign language education (FLE) programs in the US K-5 education system are few and far between despite the wealth of research attesting to the benefits of learning languages at a young age. There are many reasons why FLE programs might be difficult to start and sustain in elementary schools, and parent's attitudes could be one. Much of the current literature in this area focuses on present parents' attitudes and thoughts toward bilingual education and FLE, however, there is a lack of investigating young adults (many who will be future parents) past experiences and current attitudes toward FLE. This is a small pilot, in-depth-interview study, with three young adults and their experiences with FLE and aspirations for future generations. Findings concluded participants sharing similar positive attitudes toward learning other languages and hoping for their kids to have opportunities in elementary school, however their overall stated willingness to seek out specific schools to accomplish this, was rather low. Overall, it is hoped that this study will add new insight to start to fill the gap that persists in foreign language education research, promote bilingualism, bring to light a different viewpoint, and serve as a basis for future larger studies alike.

**Keywords:** bilingual education, foreign language education, parent attitudes, young adult attitudes

# The Relationship Between Think Aloud Method in Organization of Ideas in the First Language and Improvement of Essay Writing in the Second Language in Terms of Organization

Muhammet Nuri Aydemir<sup>1</sup> and Ekmel Yiğman<sup>2</sup>

Okan University, Turkey  
<sup>1</sup>mrm\_aydemir@hotmail.com  
<sup>2</sup>ekmel.yigman@okan.edu.tr

## Abstract

The purpose of the present study was to examine the relationship between think aloud method in organization of ideas in the first language and improvement of essay writing in the second language in terms of organization. There was only one class available for the research. A group of 15 university students who were in the English preparatory school were participated in the study through one group pre-test post-test study. One type of essay; advantages and disadvantages essay, as a pre-test, was asked to write by students. For the treatment, Think Aloud Method (TAM) was explained to the students. In the post-test, the students were asked to rewrite one advantages and disadvantages essay about different subject on different day by using think aloud method. The study was grounded on Flower and Hayes's Cognitive Process Theory of Writing (1981). The outcome of the study put forward that the use of TAM is relevant to the improvement of writing essay.

**Keywords:** think aloud method, writing skills, cognitive process theory of writing

## Introduction

### Statement of the Problem

The present study was designed to decide on the relationship between improvement of essay writing in L2 regarding to organization of ideas and thinking loud out the ideas in L1 during writing.

### Justification

The role of Think aloud method on EFL learners' written performance was also studied by Sahebkhair and Asl (2014) who pointed out that think aloud method in L2 may improve writing. They supported that the idea of thinking aloud and paying attention because thinking aloud and paying attention have a certain effect on learners' cognitive processing system and noticing. If certain linguistic features in input are taken into consideration deeply, the process of noticing occurs (Sahebkhair and Asl, 2014). Also, it is proposed that noticing is the first stage of learning (Gass, 1988). On the other hand, the excessive use of L1 in the think aloud process showed that it decreased the writers' L2 improvement (Wang and Wen, 2002). It was proposed that use of L2 in think aloud process to generate ideas for L2 writing made L2 writers more proficient and effective in their L2 writing (Wang and Wen, 2002). Hence, a teacher might use think aloud method in the first language to make students write more organized essays.

## **Significance**

In a think aloud method, it was stated that a task was given to participants and they were asked to perform their task by verbalizing what they were thinking (2012, Tavakoli). In this process, it was considered that the participants were encouraged to verbalize their thoughts (2012, Tavakoli). Also, it was pointed out that it was necessary to focus on the task while the participants were carrying out a task, (2012, Tavakoli). Moreover, it was stated that learners reached a solution to solve their writing problems if think aloud method was used in the writing process instead of imitating model essays (Sahebkhair and Asl, 2014). Writing was stated as a process-oriented work (Flower and Hayes, 1981). According to the research on L2 vs L1 students' writing, one of the most distinctive characteristics of these written texts is different organizational preferences and approaches to argument-structuring (Grabe and Kaplan, 1996). Writing was also claimed as a considerably complex task and some attempts were proposed to provide a coherent framework (Grabe and Kaplan, 1996). It was pointed out that the outcome of the study could contribute to improvement of teachers' approaches to teaching writing and learners' written production in terms of organization (Sahebkhair and Asl, 2014).

When all things considered, it can be said that think aloud can be a part of writing process because it helps learners think and promotes writing in a coherent way as think aloud method provides brainstorming.

## **Research Question**

Is there any relationship between think-aloud method in organization of ideas in the first language and improvement in learners' essay writing in second language?

## **Research Hypothesis**

H1: Think-aloud method in organization of ideas in L1 has effect on EFL learners' essay writing in L2 in terms of their organization.

## **Limitations and Delimitations**

It was assumed that attendance of participants to the class in a regular way would change during the research process. Also, the research process was too restricted in terms of participants' diversity since there was only one class.

## **Methodology**

### **Participants**

The participants who were Turkish in the present study were 15 EFL students in the English Language Preparatory School from Okan University in Istanbul, in Turkey. Their ages were 18-21. They all were in the same class. The students all studied in the public high schools before they entered university exam. The students were grouped according to proficiency exam which was given at the beginning of 2014-2015 academic year by Okan University's English Language Preparatory School. According to the proficiency exam, the participants' levels were determined as elementary. Before entering university exam, these students had already 9 years of with English as a foreign language with 6 hours of class per week. Now, they have courses such which

involves listening, reading, speaking, use of English and Reading Writing course as separately. They have totally 22 hours of English which involves and reading and writing course. They have been taking writing course since September, 2015.

### **Instrumentation**

To get data, the think aloud method was used to get about participants' thinking. The participants were given a task which was about advantages and disadvantages essay writing. During the performance on the task, they were asked to verbalize what they were thinking about a topic. They spoke out loud what they had in their mind and they tried to brainstorm in the first language. Then, they tried to write and organize their ideas by brainstorming in the second language, namely English. Paper and pencil tests are used to collect data about learners' writing performance in L2. The essay evaluation rubric was adapted from the internet and it was used to get validity (See Appendix 1).

### **Procedure**

Learners were taught how to write an organized essay at the beginning of the term. Their first experience in essay writing was to write an advantage & disadvantage essay. They have learned to write an organized essay in terms of content and development, organization and structure, mechanical conventions, critical thinking and presentation until pre-test. Learners had difficulty in organizing their ideas in L2 so that their example essays were in bad condition. The essays were not coherent and the sentences showed serious problems with progression of thoughts. The transitions were not clear in the essays. After two weeks long instruction of writing essay, learners were given a pre-test in advantages & disadvantages essay. The topic was about advantages and disadvantages of having a part time job. The treatment, think aloud method was given for two weeks. Learners started to write their example essays with the help of think aloud method. It provided learners to see their mistakes in organization. After the treatment, they paid attention to improve the sequence of ideas and supported their sentences according to the purpose of essay. After two weeks experience with think aloud method, learners were asked to write an essay on a different topic in the post-test.

### **Data Analysis**

The data was analyzed by using Statistical Package for the Social Sciences (SPSS) after two weeks of treatment. The data collected from the class was processed to see the difference between pre-test and post-test in terms of think aloud method's effect on organized advantages & disadvantages essay. In the table 1, the results of pre-test showed that 15 students completed their essays. The highest score students need to get was 20. The mean score was 10, 00 in this pre-test so it could be said that 10, 00 was the average score in the distribution. The mode score was 8, 00 that was repeated more often than any others. The highest score in the list was 14, and the smallest one was 7, so the range was  $14 - 7 = 7$ . Sixty percent of the class took less than 10, 00. Both pre-test and the post-test was investigated in terms of their organization. In the post-test, essays were written after the treatment which was instruction of Think Aloud Method. According to the mean score is 13, 14 in this post-test so it could be said that this score was the average score in the distribution. The mode score was 8, 00 that was

repeated more often than any others. The highest score in the list was 19, 00 and the smallest one was 8, 00 so the range was  $19 - 8 = 8$ . After the treatment, the post-test scores increased. While the mean score is 10, 00 in pre-test, the mean score in post-test is 13, 14. It can be deduced that the treatment (think-aloud method) contributed to students' success in writing more organized advantages & disadvantages essay.

**Table 1: Statistics**

		Pre-test Scores of Students- Advantages & Disadvantages - Part Time Jobs	Post-test Scores of Students- Advantages & Disadvantages - Living With Family
N	Valid	15	15
	Missing	0	0
Mean		10,0000	13,1333
Median		9,0000	14,0000
Mode		8,00 <sup>a</sup>	8,00 <sup>a</sup>
Std. Deviation		2,39046	3,99762
Variance		5,714	15,981
Range		7,00	11,00
Minimum		7,00	8,00
Maximum		14,00	19,00
Percentiles	5	7,0000	8,0000
	10	7,0000	8,0000
	15	7,4000	8,4000
	20	8,0000	9,0000

## Conclusion

### Implications, Application and Suggestion for Further Research

Writing is considered one of the important skill to express ideas. To write an effective essay, learners need to pay attention to many criteria such as invention of ideas, organization of paragraphs, punctuation, spelling and grammar. It was observed that there has been a lot of similarities between one's writing in L1 and writing in L2. The result of this study suggested that to some extent to think aloud method in L1 was beneficial to writing in L2. It can be stated that writing an essay necessitates brainstorming and brainstorming could be done by thinking out loud. The writing process was also relevant to Flower and Hayes's Cognitive Process Theory of Writing (1981). Although there has not been a fairly significant effect of think aloud method on L2 writing, it was observed that some of the learner got the benefit of thinking loud in L1. However, it should be noted that the excessive use of L1 by thinking out loud may have a negative effect on writing in L2 and proficiency.

The findings of the study could be used as reference by EFL learners and teachers to improve their writing in regards of organization and sequence of ideas. The similar results were achieved through a study conducted by Sahebkhair and Asl (2014). Their study was based on The Role of Think Aloud Protocols on Developing Iranian EFL learners' written performance and the study proposed that thinking aloud could be helpful for improving writing skill. The present study offered that there could be more improved researches about any other types of essays or writing with other groups of language learners from different ages in different settings.

## Discussion

There has been an improvement in learners writing in L2. However, it could be stated that before the treatment, the teacher may have taught essay writing in L2 in very effective way. Therefore, the learners did not need to think aloud during post-test process.

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## Appendix 1

Standard Grade ↓	Invention: Ideas/ Support 5 pts	Arrangement: Organization of Essay and Within Paragraphs 5 pts	Style: Voice/Tone/ Sentence Quality/ Word Choice (Diction) 5pts	Style: Grammar, Usage, Punctuation, Spelling, Format 5 pts
Far Exceeds Standards	<ul style="list-style-type: none"> <li>*Addresses assignment thoughtfully.</li> <li>*Strong, consistent sense of purpose and audience.</li> <li>*Clear thesis.</li> <li>*All body paragraphs are fully developed with appropriate, specific details.</li> <li>*If required, sources are used, cited, and integrated skillfully.</li> </ul>	<ul style="list-style-type: none"> <li>*Introduction skillfully builds context and contains focused thesis.</li> <li>*Order of all paragraphs is logical and appropriate for essay's purpose.</li> <li>*Each body paragraph skillfully supports essay's purpose and is unified, coherent, with transitions and topic sentence.</li> <li>*Closing paragraph skillfully brings essay to logical end.</li> </ul>	<ul style="list-style-type: none"> <li>*Voice/tone are always distinctive, appropriate, engaging.</li> <li>*Sentence quality is almost always high, appropriate, fluent, varied.</li> <li>*Diction is consistently appropriate, fresh, clear.</li> </ul>	<ul style="list-style-type: none"> <li>*Demonstrates strong understanding of sentence boundaries.</li> <li>*Grammar, usage, punctuation help promote essay's ideas.</li> <li>*Demonstrates highly proficient use of Standard Written English.</li> <li>*All format standards are skillfully used.</li> </ul>
Exceeds Standards	<ul style="list-style-type: none"> <li>*Addresses assignment.</li> <li>*Good sense of purpose and audience.</li> </ul>	<ul style="list-style-type: none"> <li>*Introduction builds context and contains focused thesis.</li> </ul>	<ul style="list-style-type: none"> <li>*Voice/tone are usually</li> </ul>	<ul style="list-style-type: none"> <li>*Demonstrates strong understanding of</li> </ul>

	<ul style="list-style-type: none"> <li>*Clear thesis.</li> <li>*Most body paragraphs are developed with appropriate details.</li> <li>*If required, sources are usually used, cited, and integrated.</li> </ul>	<ul style="list-style-type: none"> <li>*Order of all paragraphs is logical and appropriate for essay's purpose.</li> <li>*Each body paragraph supports essay's purpose and is mostly unified and coherent, with transitions and topic sentence.</li> <li>*Closing paragraph brings essay to logical end.</li> </ul>	<ul style="list-style-type: none"> <li>distinctive, appropriate, engaging.</li> <li>*Sentence quality is usually high, appropriate, fluent, varied.</li> <li>*Diction is usually appropriate, fresh, clear.</li> </ul>	<ul style="list-style-type: none"> <li>sentence boundaries.</li> <li>*Grammar, usage, punctuation almost always help promote essay's ideas.</li> <li>*Demonstrates proficient use of Standard Written English.</li> <li>*All format standards are skillfully used.</li> </ul>
Meets Standards	<ul style="list-style-type: none"> <li>*Addresses assignment.</li> <li>*General sense of purpose and audience.</li> <li>*Adequate thesis.</li> <li>*Most body paragraphs are developed with details.</li> <li>*If required, sources are usually used and cited, but sometimes not integrated skillfully.</li> </ul>	<ul style="list-style-type: none"> <li>*Introduction builds some context and contains thesis.</li> <li>*Order of most paragraphs is logical and appropriate for essay's purpose.</li> <li>*Most body paragraphs support essay's purpose and are usually unified, coherent, with some transitions and topic sentences.</li> <li>*Closing paragraph brings essay to end.</li> </ul>	<ul style="list-style-type: none"> <li>*Voice/tone are inconsistent.</li> <li>* Sentence quality is adequate, not as fluent and varied.</li> <li>*Diction is usually appropriate and clear.</li> </ul>	<ul style="list-style-type: none"> <li>*Essay contains a few sentence boundary problems.</li> <li>*Grammar, usage, and punctuation are adequate, with some errors.</li> <li>*Demonstrates adequate use of Standard Written English.</li> <li>*Most format standards are used.</li> </ul>
Needs Some Revision to Meet Standards	<ul style="list-style-type: none"> <li>*Addresses assignment superficially or partially.</li> <li>*Little sense of purpose and audience.</li> <li>*Unclear thesis.</li> <li>*Few body paragraphs are developed.</li> <li>*If required, sources are sporadically used and cited, and not well integrated.</li> </ul>	<ul style="list-style-type: none"> <li>*Introduction builds little context and contains flawed thesis.</li> <li>*Order of some body paragraphs is not logical or appropriate for essay's purpose.</li> <li>*Some body paragraphs do not support essay's purpose, and some lack unity, coherence, transitions, or topic sentences.</li> <li>*Closing paragraph is ineffective or combined with a body paragraph.</li> </ul>	<ul style="list-style-type: none"> <li>*Voice/tone need some development.</li> <li>*Sentence quality is low, sometimes not fluent or varied, and idiomatic.</li> <li>*Diction is sometimes inappropriate, unclear, and limited.</li> </ul>	<ul style="list-style-type: none"> <li>*Essay contains more sentence boundary problems.</li> <li>*Errors in grammar, usage, and punctuation begin to hinder communication</li> <li>*Shows limited experience with Standard Written English.</li> <li>*Some format standards are not used.</li> </ul>
Needs Much Revision to Meet Standards	<ul style="list-style-type: none"> <li>*Assignment not addressed.</li> <li>*No sense of purpose and audience.</li> <li>*No thesis.</li> <li>*Few body paragraphs are developed.</li> <li>*If required, sources are rarely used and</li> </ul>	<ul style="list-style-type: none"> <li>*Introduction builds little or no context and contains no thesis.</li> <li>*Order of paragraphs is not logical or appropriate for essay's purpose.</li> <li>*Most body paragraphs do not support essay's</li> </ul>	<ul style="list-style-type: none"> <li>*Voice/tone need much development.</li> <li>*Sentence quality is low, not fluent, not varied, unidiomatic.</li> </ul>	<ul style="list-style-type: none"> <li>*Shows little understanding of sentence boundaries.</li> <li>*Numerous errors in grammar, usage, and punctuation</li> </ul>

	cited, and not integrated, or are not used; or are used but not cited (plagiarism).	purpose, and are not unified and coherent. *Transitions and topic sentences are rarely used. *Essay lacks closing paragraph.	*Diction is often inappropriate, unclear, and limited.	hinder communication *Shows lack of experience with Standard Written English. *Many format standards are not used.
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# Speaking Has Never Been More Fun for ELLs

Alia Hadid

University of South Florida, USA  
aliahadid@mail.usf.edu

## Abstract

Music is a universal language that can touch people's hearts and minds. It has the power to bind people from different backgrounds regardless of their inability to communicate well in one language. This presentation helps raise teachers' awareness of the educational benefits of music and its effectiveness in enhancing learners' speaking abilities.

Research has pointed out the effects music can have on people including their creativity, verbal intelligence, and linguistic abilities (Gibson, Folley, & Park, 2009; Hoch & Tillman, 2012). Music can help language learners improve in many areas. For instance, Milovanov et al., (2010) reported that both children and adults who exhibited higher musical aptitude had an advanced level of pronunciation. Music can also affect one's reading. Herrera et al. reported that having a two-year exposure to phonological and musical training resulted in the improvement of reading comprehension not only of native speakers, but also of second language learners. With respect to working memory, Strait, Kraus, Parbery-Clark, & Ashley (2010) revealed that music helped improve auditory working memory. These findings should motivate language teachers to incorporate songs into their everyday lessons due to the tremendous effects they can have on students' development.

Language learning is challenging and demanding. Learners can usually grasp grammatical concepts, learn vocabulary, and start reading relatively fast. Speaking, however, is the one skill that English language learners (ELLs) struggle with and fear, even at higher levels. Teachers worldwide face this problem in their classrooms and continuously try to convince their students to participate in speaking activities.

The goal of this practice-oriented presentation is to provide teachers with ways to get their students speaking in class. This interactive presentation demonstrates how teachers can engage their students in conversations using music. Teachers will become familiar with multiple activities they can use time and again in class to talk about different topics. Teachers will learn how a song can give rise to different points of view and intrigue learners to participate in interesting conversations. There are hundreds of songs that teachers can use in their classrooms to hold students' attention and instill in them the willingness to take part in some of the most thought-provoking conversations.

The demonstration offers insight on the use of different types of songs to help learners engage in fun speaking activities and deepen their knowledge about various issues. Teachers can employ a variety of language production activities that appeal to different types of learners. This practical experience gives a sense of the unlimited ways available to help students practice and develop to become better speakers. It proves

that speaking has never been easier and more fun. Beyond that, it provides educators with a new vision of the potential uses of music and the possibilities of opening new avenues for speaking success.

**Keywords:** music, speaking, language learning

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# Faculty Perceptions of the Academic Needs of English as a Second Language (ESL) Students in College-level Classes

Catherine Mougalian<sup>1</sup> and Lauren Braunstein<sup>2</sup>

Ringling College of Art and Design  
Liberal Arts Department  
Sarasota, FL, USA  
<sup>1</sup>CMougali@c.ringling.edu

University of South Florida  
College of Education  
Tampa, FL USA  
<sup>2</sup>isaacl@usf.edu

## Abstract

As American college campuses become more and more globalized, college professors are challenged with accommodating the needs of international students, and specifically, English as a Second Language (ESL) students. As the ESL program at a small art and design college grows, ESL faculty are charged with not only teaching English language and academic skills but also collaborating with content area faculty colleagues to provide strategies to accommodate the needs of ESL students in their classes. The ESL faculty have always begun each course with a needs analysis from the students, but realize that this has given only one perspective, that of the students. Students have reported that they need guidance in classroom participation, note-taking, presentations, understanding idiomatic expressions, and building disciplinary vocabulary. While the needs of the students are vital in planning instruction, the voices of the faculty who have ESL students in their classes have been absent. As a result, over the course of the past two academic years, the ESL faculty have elicited feedback through informal email and personal communication as well as a formal engagement of the topic during a professional development day. This preliminary “pilot” study aims to report feedback regarding the needs of content area faculty as they grapple with the challenges of delivering their materials. Interestingly, students’ and professors’ expectations are often very similar; professors would like to see their ESL students improve in the same areas in which the students also wish to improve. Despite such aspirations, professors have reported that they believe they are ‘dumbing down’ the material in order to accommodate the ESL students. Because ESL faculty must act as a liaison between the international community on campus and the professors, it is important to understand fully the content area faculty perception in order to provide appropriate faculty development. To that end, the presenters will engage the roundtable participants through the following questions:

- What are the biggest challenges of instructors of ESL students while preparing the students for college courses?
- Are the instructors’ expectations aligned with second language acquisition theory? Is it reasonable to think that the majority of ESL students should be able to learn sufficient English skills within a semester in order to thrive in a four-year college?

- How can ESL instructors effectively collaborate with professors to adapt their syllabi, the way they present information, and the way they give their instructions, in order to reach the international population more easily and without “dumbing down” their curricula?

In addition, the presenters will discuss a research design for a larger study by sharing a measurement tool to understand faculty perceptions’ of ESL students in their courses. The results of this study aim to guide professional development for faculty both to change perceptions (if needed) and also to provide concrete strategies to accommodate the sociolinguistic and academic needs of the ESL students.

**Keywords:** university ESL, challenges teaching ESL students, adapting for ESL students

# Perception of Parents From Asian American Families on Storybook Sharing With Their Children

Mei-Hsiu Chuo<sup>1</sup> and Sheng-Fei Shen<sup>2</sup>

Department of Early Childhood Education  
Asia University, Taiwan (R.O.C.)  
<sup>1</sup>max72621@gmail.com  
<sup>2</sup>shen@asia.edu.tw

## Abstract

Parents and guardians play vital roles in their children's development. In order to identify with parents' beliefs, attitudes, and practices within the broader perspective of emergent literacy, it must be discussed as a continuous procedure that occurs inside of the family unit and outside of formal education (Saint-Jacques, Drapeau, Lessard & Beaudoin, 2006)

Prakash and Klotz (2009) articulated that qualitative research is an adventure that takes patience, focus, courage, heart, and support. The purpose of this research is explanatory and clearly describes the beliefs and attitudes of parents, who are Asian American, about their perceptions of sharing storybooks together. The study addressed the positive interactions between parents and their children while sharing books together and analyzes these interactions from the theoretical framework of emergent literacy.

Three families, comprised of six parents who are Asian American, and four children from ages 2 to 7 years-old, participated in this research. Although the sample size may be small, the qualitative research studied the participants in depth within their context in order to gain rich, thick data. Purposeful sampling of six parents and four children was conducted. All of the parents who participated routinely shared storybooks together with their young children. All interviews and observations were conducted at family's convenience. Each parent interview approximately spent 15 minutes. Observation approximately spent 30 minutes.

The vast amount of data was reduced by coding and categorizing. Each of the interviews was recorded on a word processing program. The parents' interviews included whether or not the participant was a mother or father. For example, the four year-old girl's mother's code was: 4GM1. The coded responses were then physically separated into file folders, one for each interview question.

The main finding of this study indicated that storybook reading helps to promote the literacy development of children. All of the parents strongly agreed that sharing books with their children is important to their development. Parents help their children understand storybooks through discussing the contents and usually provided the bilingual to help children to understand words image and meaning. However, during the observations all of the children labeled object, described illustrations, and interpreted meaning. In the share reading session, the parents discussed words meaning and

sounds in Chinese and English with the children. All parents stated that they talk about storybook, phonetic rule, illustrations, predictions, text, and story content. During the story sharing sessions, most of the mention actions were observed. To promote children's literacy development, all parents described providing books for their children at home and reading to them often. Overall, the parents, who participated in this study, provide valuable literacy experience for their children.

**Keywords:** share reading, literacy development, asian american

# Breaking Silence: The Unheard Voices of Syrian Refugee Children in the Canadian Classroom

Sara Shahbazi<sup>1</sup>, Geri Salinitri<sup>2</sup> and Alyssa Palazzolo<sup>3</sup>

Faculty of Education  
University of Windsor, Canada  
<sup>1</sup>shahbzs@windsor.ca  
<sup>2</sup>sgeri@uwindsor.ca  
<sup>3</sup>palazzolo1@uwindsor.ca

## Abstract

The purpose of this study was to explore the lived experiences of Syrian Refugee children as they adapt to the Canadian classroom. The participant group included 5 Syrian refugee students who entered their first year in a South-western Ontario public school as of the 2015-2016 school year. Data was collected through semi-structured interviews, which focused on the exploration of students' experiences in the classroom.

Refugees are identified as individuals who are affected by war and violence and are forced to seek refuge and protection from a host country (Ehnholt & Yule, 2006). According to Kirova (2010), the resettlement process is abrupt, causing great physical and emotional stress. It is followed by an extended period of time within a refugee camp, where poor nutrition, shelter, limited medical assistance and the absence of education are faced (McBrien, 2011). Pre-migration experiences are just as traumatic as those experienced in the home country, as refugees continue to survive the difficulties of violence, family separation, loss of loved ones and psychological challenges (Segal & Mayadas, 2005).

The post-traumatic events of pre-migration effects refugee children's integration into mainstream Canadian schools and culture. Pine and Drachman (2005) found that the loss of a family home, leaving family behind and the displacement of loved ones as overwhelming constraints faced after migration. These experiences can lead to aggressive behaviours, depression and psychological instability, which may foster unstable peer relationships, feelings of isolation and low self-esteem (Loerke, 2009). Such social challenges are equally met by academic struggles, particularly by those who have limited to no schooling experience (Short & Boyson, 2004). These challenges are heightened as schools provide resources that do not sufficiently address the learning needs of refugees when placed in English Second Language (ESL) and mainstream classrooms with native speakers (Short & Boyson, 2004).

As a growing population group, Canada has seen an influx of Syrian refugee students within the elementary school system, many of which are entering their first year with limited language, gaps in schooling and the baggage of war (Ayoub, 2014; Ehnholt & Yule, 2006). Together, these experiences create challenges for refugee students in their adaptation to culture and expectations of formal schooling (Ferfolja & Vickers, 2010). According to Ayoub (2014), the adaptation to Canadian culture and systems is a common struggle for refugee students. Such challenges include adjustment to the

English language, curriculum, peer groups and socio-cultural norms. To assist refugee students in their transition and adaptation process, researchers have advised educators to listen to students' voices and experiences (Oikonomidou, 2007).

In October 2016, five junior Syrian students took part in a 40 minute semi-structured, one-on-one interview. Upon analysis of the interview responses the following themes emerged; the need for understanding refugee students using a holistic approach, the significance of peer relationships in enhancing language acquisition, and the impact of the structure of the learning environment on students' experiences. It is hoped that the results from the study will provide deeper insight to the common threads that lead to successful resettlement of refugees in Canadian schools.

**Keywords:** syrian refugee, english language learner, english as a second language, student experience.

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# Understanding Preschool Children's Cooperative Problem Solving During Play: China and the U.S.

Meilan Jin<sup>1</sup> and Mary Jane Moran<sup>2</sup>

The Department of Child and Family Studies  
College of Education, Health, and Human Sciences  
The University of Tennessee, USA  
<sup>1</sup>mjin5@vols.utk.edu  
<sup>2</sup>moran.maryjane@gmail.com

## Abstract

Cognitive development theory and sociocultural theory both emphasize the value of play in children's learning and development. Piaget (1951) suggested that peer interaction during play could promote children's learning, practice, and development of cognitive abilities and skills. For Vygotsky (1933), play is a context for children to act in an imaginary situation and create "voluntary intentions" and real-life plans via interacting with others (p. 26). In particular, playing with advanced peers promotes children's potential to challenge complex problems, internalize the skills learned from the interactions, and apply them to solve future problems. Studying the development of children's cooperative problem solving skills, locally and cross-culturally, has value in the 21st Century as our children will continue to face problems that are no longer unique to particular cultures but also relevant to people in diverse cultures around the world.

Research suggests that 4- and 5-year-old children, especially, show cooperative problem solving when engaged in play (Ramani, 2012; Siegler & Jenkins, 1989; Trnavsky, 1997). Nevertheless, there is a lack of research studying children's cooperative problem solving during play in natural preschool classroom contexts (Ramani & Brownell, 2014) and particularly, cross-culturally (Schneider, Benenson, Fulop, Berkics, & Sandor, 2011). Thus, investigating children's cooperative problem solving behaviors in different cultural contexts holds promise for providing informative descriptions of preschool children's cooperative problem solving during play. With this research aim, two primary research questions guide this study: 1) How do 4- and 5-year-old children solve problems, cooperatively, during play in selected U.S. and Chinese classroom contexts? 2) What are preschool teachers' beliefs about their roles in supporting children's cooperative problem solving during play?

This study comprises two phases that includes a four-month field work in Chinese kindergarten classrooms (n = 3) followed by a four-month field work in U.S. preschool classrooms (n = 3). This presentation will be focused on the Chinese data, only. The Chinese kindergarten setting is a private kindergarten located in the Northeast region of China. The kindergarten is affiliated with a private university that provides pedagogy courses for university students. The kindergarten seeks to provide child-centered education for children's learning and development, across four programs that serve toddlers, preschoolers, and kindergarten aged children (N = 50); three classrooms include children from four to five years of age (n = 40). Most children were from middle social economic status (SES) families. Similarly, the U.S. preschool is a university

laboratory school located in the Southeastern region of the U.S. This preschool is a site for researchers and students to study children's development and teaching practices of student teachers. The preschool includes four programs for infants, toddlers, preschoolers, and kindergarten aged children (n= 115). Among the programs, there are three preschool classrooms and one kindergarten that primarily include children from four to five years of age (n = 46). This center mainly serves children from middle SES families.

For this Global Conference on Education and Research presentation, research data and findings will be presented, based on the participation of a) 21, 4- and 5-year-old children and b) their classroom teachers (n = 3) from the Chinese kindergarten (4 children were under the age of 4 at the time of the study and are not included, along with their classroom teacher). Participants included 7 boys and 14 girls participants, with five, 4 year olds and sixteen, 5 year olds.

According to parents' reports, 90.48% of the children were from middle-class families, and 4.76% from higher- and lower-class families, each. Moreover, 76.19% of parents graduated from a 4-year institution or from a college; 14.29% from a high school; and 9.52% from a middle school. All parents were married. Except for two children who were identified as national minorities, the remaining children were identified as Han ethnicity (majority population in China). Teachers were female, ranging in age from 26 to 43 with an average of 12 years of teaching experience. One teacher graduated from a 4-year institution, and the remaining teachers graduated from a 3-year professional teaching college programs. All teachers identified themselves as Han ethnicity.

Primary data sources include: 1) video recordings of focal children with peers during play, 2) written classroom observations of children's play behaviors, and 3) semi-structured, video-stimulated recall interviews with teachers. Secondary data sources include field notes and daily research journal entries. Although data analyses are currently underway, we expect to complete the analyses using the Multivariate Analysis of Covariance (MANCOVA) in April.

A preliminary review of quantitative data suggests that Chinese children's cooperative problem solving is similar to that of the U.S. children with some exceptions. Consistent with previous theoretical and experimental studies, older children show more cooperative behaviors and communication in child-centered play contexts than younger children (e.g., Piaget, 1951; Ramani, 2012).

Surprisingly, children did not evidence a division of labor while problem solving as found in other studies (Holmes-Lonergan, 2003; Ramani, 2012). Moreover, children's cooperative problem solving behaviors differed by gender as well as age. Girls were more likely to engage in social conflicts during efforts to gain access to play materials, typically resolving conflicts using verbal threats (e.g., "I won't play with you anymore," or "I will not share my snack with you tomorrow"). This finding is different from some studies conducted in the U.S. in which girls have been more likely to offer peers access to materials than boys (e.g., Holmes-Lonergan, 2003). Our findings also suggest there

is no age difference among girls who engage in social conflicts. For boys, however, they are more likely to engage in cognitive problems (e.g., constructing or building something) and negotiate differences by using physical control (e.g., children block peers' actions). Finally, as expected, younger boys appear to use more physical control to solve problems than do older boys.

The analysis of situated phenomena and related process features of teachers' experiences (Glaser & Strauss, 1967, pp. 28-52) were garnered from teacher interview transcriptions, field notes, and daily research journal entries. Grounded theory has influenced the methodological approach to data analysis (e.g., open, axial, and selective coding processes) while constant comparative method has been used to compare across data in order to saturate themes (Glaser & Strauss, 1967).

Emerging trends point to the value of teachers' roles in children's cooperative problem solving. Varying perspectives regarding children's safety and their ability to solve conflicts during cooperative problem are being uncovered, in particular regarding when and how to intervene. While supporting children's cooperative problem solving during play, teachers also reflected on their challenges in the areas of classroom space, play materials, and pressures felt from parents' high expectation for children's academic learning. It is expected that the contributions of this study will (a) provide a description of preschool children's cooperative problem solving in one Chinese kindergarten, and (b) generate new knowledge related to the impact of culture on children's cooperative problem solving.

**Keywords:** culture, preschool, classroom contexts, cooperative problem solving, play.

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# Global Understanding Through Travel: The Struggle to Define Learning While on the Road in El Salvador

Ali Sakkal

Wake Forest University, USA  
sakkalan@wfu.edu

## Abstract

This study addresses the role of school-facilitated group travel in shaping participant experiences, attitudes, and beliefs regarding their own learning and development abroad and at home. The setting at the basis of this inquiry is the twenty-five students and three teachers from Future Tech West, a progressive project-based charter high school located in the Western United States, as they travel to El Salvador for twelve days.

Grounded in a qualitative research methodology, this study focuses on interviews taking place during the months surrounding the trip, incorporates photographs as artifacts of travel and tools for photo-elicitation interviews, and utilizes extensive fieldwork of the author as a participant observer. By making extensive use of interviews, the study constructs narratives surrounding a number of themes connected to the unique affordances of more “off the beaten path” travel. Focusing on particular immersive events during the trip, narrative themes include discussions of student perceptions of more authentic contexts for learning about American exceptionalism, developing deeper relationships amongst both students and teachers, and unexpected manifestations of dealing with homesickness. A second photo-based interview inquiry process focuses on shifting student perceptions before and after the trip. This inquiry discusses student sentiments of desiring a less consumerist life as a result of living more basically, seeing widespread poverty, and interacting with the locals while in El Salvador. Lastly, a final inquiry utilizes student and teacher narratives to emphasize perceptions distinguishing school learning from the types of learning that occur while traveling, and whether it is possible to capture the positive attributes participants connect to travel within the context of school.

Through interweaving the multiple literatures of sociocultural theory, progressive education, critical pedagogy, and travel learning this study addresses that while there may be many fundamental differences at their foundations, when connected to schools and development of the individual, these disparate discourses often manifest in similar ways—particularly when connected to the often-overlooked factors of student-driven activity, authenticity, chaos, and serendipity in the socialization process. Finally, this paper suggests that it is plausible that the complicated and possibly conflicting space surrounding the socially negotiated goals and ideals of the diverse cultures of the individual, school, home country, and visited country can produce a more visceral setting for individual students to develop into the learners needed for today’s world.

**Keywords:** intercultural competency, study abroad, globalization, identity development

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# Academic Stress Experienced by High School Students in South India

Carolyn Doss

Burman University, Canada  
cdoss@burmanu.ca

## Abstract

High school students in both North America and in India experience stress, but from very different sources. Peer pressure plays an essential role in the academic stress experienced by high school students in North America, whereas for students on the Indian sub-continent parental influence plays the greatest role in the stress they feel. The importance attributed to the school exams and to the statewide board exams at the end of Standards X and XII create a tremendous pressure within the home for Indian students to achieve high marks. Parents begin to chart the education course of their children from early childhood, in preparation for achieving this goal, since the career paths open to their children depend on the marks achieved on these exams. With this high level of hope and expectation for the future, parents assume a very active role and make any sacrifice necessary for the education of their children.

For this paper a survey of 231 students, comprising seven sections of students studying in the tenth and twelfth Standards in south India, was conducted in summer 2014. The survey was conducted in Chennai, the most populous city in the state of Tamil Nadu. Three private high schools were selected with a mix of diversity regarding religion, caste, parental education, and other such similar socio-economic factors. The questions posed related to the tension experienced in writing school exams, and personal feelings toward school performance. Most of the questions presented in the survey were *open format* in the sense that students were free to choose multiple responses applicable to the question, as well as free to write-in their own opinion, feeling, or idea. In order to obtain a free-flow of opinions in the tight society of the Indian culture, as much freedom as one can imagine was exercised to obtain the information. The results reported in this paper are part of a larger study on academic stress and the Indian system of education. This paper concentrates exclusively on the stress created by unsatisfactory performance on school exams, as well as the influence exerted by the parents toward their students' academic achievements.

The most prominent response choice, by 52% of the students, attributed *disappointing one's parents*, or *scolding by parents* as the major contributing factor to their feelings of stress. More girls (57%) than by boys (50%) felt this parental pressure. Religion, caste, and socio-economic factors played no role in the response choice. However, students with at least one parent who attended college felt the parental influence or pressure more heavily than students whose parents had no college education.

Interestingly, the study found that *peer influence* or *disappointing teachers' expectations* played a minor role (20%). There was no difference between the feelings expressed by tenth and twelfth Standard students as far as parental influence was concerned.

Students felt that playing sports (26%), visiting a friend (24%), watching movies (24%), listening to music (4%), praying (4%) and crying (9%) were means of easing the tension felt by their lack of expected academic performance. Although these factors exhibited gender differences, there was little overall difference in the outlets expressed by students in Standards X and XII. The exceptions were that more females than males found comfort in crying, listening to music, and praying. The responses of listening to music and praying were write-in responses expressed by the students.

It is concluded that the parental influence felt was inevitable, and the coping strategies are for schools to provide more facilities for sports and time for interpersonal activities.

**Keywords:** academic stress, India, parental pressure, high school

# Role of Culture in Global Competence: Perceptions of International Students

Heba Abuzayyad-Nuseibeh<sup>1</sup> and Nadia Awaida-Nachabe<sup>2</sup>

University of South Florida, USA

<sup>1</sup>pearla.az@gmail.com

<sup>2</sup>nadia8@mail.usf.edu

## Abstract

In this global era, higher education institutions have been contending for strategies to graduate globally competent students. Higher education institutions have been consistently using international student enrollment as a measure of globalization. International student enrollment has been steadily growing since 2000 (US News, 2014). According to Project Atlas (n.d.) the total number of international student enrollment reached a record high of 974,926 in 2014-2015. According to Project Atlas in the academic year 2015/2016, Chinese students ranked number one in US international student enrollment (31.5%) with over 328,000 students enrolled and Saudi students ranked number three (6.1%) with more than 60,000 students enrolled in (Fall, 2015).

Global interdependence has grown unpredictably, driving global competence to the center stage in many areas of research especially adult and higher education (Hudzik, 2011). As a result, plethora of initiatives to internationalize higher education were executed in an effort to graduate globally competent students equipped with 21st century skills and prepared to function in an increasingly interconnected world (Balistreri, Tony Di Giacomo, F., Ptak, & Noisette, 2012; Briscoe, 2015; Gopal, 2001; National Education Association, 2010; Reimers, 2013; Wit & Leask, 2015). Bok (2006), 25th president of Harvard University, mourns the inadequate performance achieved by those institutions in regard to developing global competence. Bok explains that these initiatives offer little guidance on the means to the end as they offer opportunities but lack focus. Harrison and Peacock (2009) and Wit and Leask (2015) express that universities are failing to capture existing international and intercultural opportunities. Similarly, Hart Research Associates (2013) survey of 318 employers conducted on behalf of the Association of American Colleges and Universities (AACU) asserts that most graduates are not ready to face the global market. Three in four employers recognize the importance of intercultural skills in career success (Hart Research Associates, 2013).

The rising need for a global perspective forced intercultural competence to gain recognition (Ali, 2014; Deardorff, 2011). A surge of terminologies has been used interchangeably for the past 50 years (Fantini, 2009). Western inquiry has extensively described the scope and application of a global perspective with little agreement. This discrepancy is demonstrated in the diverse viewpoints in current literature. A global perspective varies among scholars. Sometimes powered by economic forces (Friedman, 2005), based on world view (Purdy, 2003), or focused on cognitive, affective, and behavioral skills (Bennett & Bennett, 2004; Deardorff, 2004; Hunter, 2004; Wallenberg-Lerner, 2013). Existing research emphasizes that global perspective is

concentrated on the development of intercultural competence (Behrnd & Porzelt, 2011; Bennet, 1993; Cui, 2013; Deardorff, 2004; Hett, 1993; Hunter, 2004) in which strict knowledge of objective culture is insufficient (Bennett, 2011).

Existing research incites a need for global competence framework in which successful interpersonal, academic, and professional life is achieved in a world of global economies. Today's interconnectedness mandates an agenda to bridge, understand, and appreciate cultural differences. Current research has been advocating priming future generations with a compatible set of skills to function in this rapidly transforming global social system, education, workforce, and government (National Education Association, 2010; Mansilla & Jackson, 2011; Reimers, 2013; Wit & Leask, 2015).

The National Association for Foreign Student Affairs (NAFSA) defines global competence as the ability to use information from different sources around the world; and modeling the values and perspectives of respect and concern for other cultures, peoples, and global realities (2012). The term global competence according to many scholars is related to higher education and the development of skills (Bennett, 1993, Deardorff, 2004; Hett, 1993; Hunter, 2004). Deardorff outcome based definition of intercultural competence as the *effective and appropriate behavior and communication in intercultural situations* where knowledge, attitudes, skills, internal and external outcomes are crucial elements of the process model (2004). Deardorff identified respect, openness, and curiosity as components of attitude. Cultural awareness and worldview constitute one's knowledge while observation, listening, analyzing, interpreting and relating represent one's skills.

Schwartz's (2006), Hofstede's (1984), and Ingelhart's (1977) research supports the significance of universal values as they relate to personal decisions, motivations, and culture. Cultural values have major influence on personal decisions (Briscoe, Hall & Mayrhofer, 2012; Schwartz, 2006). Little research exists on the relationship between cultural values and global competence or its cross-cultural perception. Much of intercultural studies overlook the role of social values.

According to Hofstede (1984, 2001), cultural values are deep-rooted by mental programming and may fail if violated by cross-cultural interactions. Hofstede (2001) called for shared meaning system of cultural norms and values.

Hofstede's cultural dimensions provide insight on how and why people behave differently. These dimensions explain the causes for societal and cultural variations. These dimensions further provide a clear and practical framework that is applicable in various fields particularly in relation to intercultural studies.

Hofstede (1980, 1991) defines culture as the collective programming of the mind. Hofstede research resulted in a five-dimension model of culture. two dimensions relevant to global competences are: 1) power distance, and 2) individualism/collectivism. According to Hofstede, power distance dimension is the degree to which individuals of a particular society accept the unequal distribution of power. It is defined as the extent to which individuals of a country expect and accept unequal distribution of power. This society accepts hierarchical order without explanation. Individualism/collectivism represents contrasting preferences for a loosely

vs versus tightly-knit social structure. In loosely knit societies, individuals are expected to take care of themselves and their immediate family. In collectivist societies, members are expected to look after families and members of particular groups.

Based on Hofstede, Kingdom of Saudi Arabia and China score high on the Power Distance and significantly low on the Individualism dimensions. Both Saudi and Chinese cultures score 95 and 80 on the power dimension. These societies accept hierarchy and expect inequality. In these cultures, authority and control are prevailing; individuals expect to be told what to do. On the other hand, Saudi Arabia and China score 25 and 20 on the Individualism dimension. These societies are big on collectivism where loyalty is supreme and defies most rules and regulations.

### **Purpose**

The purpose of this qualitative research is to explore how culture influences the global competence of Saudi and Chinese international students. The research question driving this study is: How does culture influence the global competency of Saudi and Chinese students?

### **Sample**

The sample will be a group of a University international students. Four Saudi students and four Chinese students will be identified through professional contacts.

### **Instrumentation/Procedure**

Two focus groups will be conducted, one with the Saudi students and another one with the Chinese students. First, a brief demographic information form regarding the age, education, work history will be given to each participant. This will be followed by 11 questions on the influences of culture on global competency. Answers will be analyzed to spot any thematic similarities.

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# Examining Cross-cultural Affective Components of Global Competence From a Value Perspective

Nadia Awaida-Nachabe

University of South Florida, USA  
nadia8@mail.usf.edu

## Abstract

Global interdependence has driven global competence to the center stage particularly in adult and higher education. A plethora of initiatives to internationalize higher education were executed to graduate globally competent students equipped with 21<sup>st</sup> century skills and prepared to function in an increasingly interconnected world. The rising need for a global perspective forced *intercultural competence* to gain recognition. Scholars agree on the significance of values in the development of global/intercultural competence particularly the role of values. Little research exists on cross-cultural perspective of intercultural competence and the role of values on its development. The purpose of this study was to investigate the relationship between cultural values and affective components of global competence.

**Keywords:** globalization, global competence, adult education, values, schwartz value theory, affective components

Global interdependence has grown unpredictably, driving global competence to the center stage in many areas of research especially adult and higher education (Hudzik, 2011). As a result, plethora of initiatives to internationalize higher education were executed in an effort to graduate globally competent students equipped with 21<sup>st</sup> century skills and prepared to function in an increasingly interconnected world (Balistreri, Tony Di Giacomo, F., Ptak, & Noisette, 2012; Briscoe, 2015; Gopal, 2001; National Education Association, 2010; Reimers, 2013; Wit & Leask, 2015). The rising need for a global perspective forced *intercultural competence* to gain recognition (Deardorff, 2011). Existing research emphasizes that global perspective is concentrated on the development of intercultural competence (Behrnd & Porzelt, 2011; Bennet, 1993; Cui, 2013; Deardorff, 2004; Hett, 1993; Hunter, 2004) in which strict knowledge of objective culture is insufficient (Bennett, 2011).

Despite extensive disagreements regarding the scope of the definition, everyone agrees on the significance of values in the development of global competence (Bennett, 1993; Carano, 2010; Reimers, 2008; Wallenberg-Lerner, 2013). Values are highly acknowledged in the field of social science specifically when considering intercultural competence (Hofstede, 2011; Schwartz, 1992). Schwartz (2006) believes that culture is a rich composite of meanings, values, and traditions central to social groups. Schwartz (2006) supports Hofstede (1984) and Ingelhart and Wetzel's (2005) view that societal values are the most important features of culture.

Bennett (2004) stresses that developing intercultural competence is partially communication that relies on behavior and does not occur *without thought and emotion*.

Bennett refers to this unity as *intercultural mindset*. This skillset has been identified by Bennett (1993) as cognitive, affective, and behavioral skills, and established by Wallenberg-Lerner (2013) as affective components of global competencies. Wallenberg-Lerner researched cross-cultural perspective and affirmed the universal importance of affective components in all GeoCultural regions and subcategories.

Existing research incites a need for global competence framework in which successful interpersonal, academic, and professional life is achieved in a world of global economies. Today's interconnectedness mandates an agenda to bridge, understand, and appreciate cultural differences. Current research has been advocating priming future generations with a compatible set of skills to function in this rapidly transforming global social system, education, workforce, and government (National Education Association, 2010). In order to support and build on current research, this study will adapt and administer a questionnaire that elicits responses to identified affective components of global competencies and cultural values in the Middle East & North Africa (MENA) region. The questionnaire will utilize Schwartz Value Theory (2006) and Wallenberg-Lerner research on affective components of global competencies (2013). The MENA region will be identified using Wallenberg-Lerner's map of GeoCultural region map.

Current definitions, models, and instruments of global competence represent an array of theoretical approaches and methodology. Despite extensive research, almost all inquiries have been explored from an American-Western perspective with no consensus or inclusion of an authentic intercultural definition (Bennett, 1993; Deardorff, 2004; Hett, 1993; Hunter, 2004; Wallenberg-Lerner, 2013).

Prevailing research on global competence is rooted in universalism. The Global Policy Forum describes universalism as a form of cultural imperialism ("Cultural Relativism vs. Universalism", n.d.). Hunter (2004) and Deardorff (2006) reveal that American perspectives and the researcher's cultural background guide these investigations respectively. Wallenberg-Lerner stresses the absence of a worldwide perspective that rises above cultural biases (2013).

Cummings (2002) asserts that existing literature is *sporadic and non-cumulative*. Hunter, White, and Godbey state that existing empirical descriptions are "one plausible working definition of global competencies that can be customized to fit institutional mission and character" (2006, p. 6). A review of existing literature reveals that current definitions are driven by local objectives and missions that do not cross the border to include the other perspective.

Schwartz's (2006) and Hofstede's (1984) research supports the significance of universal values as they relate to personal decisions, motivations, and culture. Cultural values have major influence on personal decisions (Briscoe, Hall & Mayrhofer, 2012; Schwartz, 2006). Little research exists on the relationship between cultural values and global competence or its cross-cultural perception. Much of intercultural studies overlook the role of social values.

Values are vital in the development of global competence (Bennett, 1993; Deardorff, 2004; Hett, 1993; Hunter, 2004; Wallenberg-Lerner, 2013). Wallenberg-Lerner (2013) asserted that existing definitions and components of global competence have emerged from an American-Western perspective representing their respective values. Therefore, cross-cultural interpretations might vary across geo-cultural regions based on cultural values.

### **Purpose of the Study**

The purpose of this study was to investigate the relationship between cultural values and affective components of global competence. This will be achieved by investigating the extent to which individuals in the MENA region perceive affective components of global competence and cultural values to be important.

### **Research Questions**

The research study will answer the following questions:

1. What affective components of global competence are perceived to be important in the Middle East and North Africa region?
2. What cultural values are perceived to be important in the Middle East and North Africa region?
3. Is there a correlation between perceived importance of cultural values and affective components of global competence?
4. Are there differences in these perceptions based on gender, age, and citizenship?

### **Sample**

The sample was a group of international students  $N=10$  identified through personal/professional contacts. Six males and four females from Kingdom of Saudi Arabia and Oman. These individuals met the criteria of the study being citizens of the MENA region, 18 years of age or older, and proficient in English.

### **Instrumentation/Procedure**

The 74-item questionnaire is the combination of three surveys that gathered demographic information, perceived importance of affective components (ACQ), and cultural values (PVQ). The PVQ is gender matched; therefore, two sub-branches are created using Qualtrics survey tool.

The survey takes about 30 minutes for non-native speakers of English. Nine affective components and four values are investigated. They represent the categorical variables. Perceived importance of these variables are measured based on a 6-point Likert rating scale and corresponding scores are the numerical variables in the study.

An initial letter describing the research study is sent to the sample group. The ACVQ survey link is also distributed electronically. An anonymous link is generated in which participants must click on to access the survey. Once the survey is closed, data will be exported and downloaded onto an excel spreadsheet for analysis

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# Modeling How to Foster Students' Critical Literacy Stance to Develop Engaged, Competent Global Citizens

Janet Richards<sup>1</sup> and Stephanie Bennett<sup>2</sup>

University of South Florida, USA  
<sup>1</sup>jrichards@usf.edu

Mississippi State University, USA  
<sup>2</sup>sbennett@colled.msstate.edu

## Abstract

*Teachers across the content areas are responsible for exposing their students to rigorous text and incorporating literacy into their instruction. This is true for teachers of... social studies” (Common Core State Standards Initiative, 2010a, p. 43)*

*“A critical reading stance is the opposite of reading for information so students can repeat it, which they are required to do in many United States primary and secondary schools, and perhaps even universities” (Cruz, Personal Communication, 2016)*

There are two compelling reasons for teachers to promote students' analytic engagements with social studies text. The first reason is the text itself. As teachers know, social studies textbooks, like all expository text, are neither impartial nor infallible (Romanowski, 2016). Research shows authors choose specific language to create impressions in the minds of students. Therefore, textbooks are infused with subjectivity. Moreover, authors' claims are often based on assumptions that contain inaccuracies, half truths, and biased language (Loewen, 2007, 2009; Padgett, 2012) (also see Apple & Christian-Smith, 1991; Goodlad, 1984; Sleeter & Grant 1991).

Yet, textbooks are at the core of the social studies curriculum, and social studies classes rely “on textbooks more than any other curriculum area” (Williams & Bennett, 2016, p. 124) (also see Sleeter, 2005; Padgett, 2012). At the same time, as Cruz notes in her review of social studies materials, “printed text has a level of legitimacy and authority perceived as virtually mistake proof” (2002, p. 337). This perceived legitimacy of authority leads students, and often new and inexperienced teachers, to unquestionably accept the veracity of what they read (Cruz, 2016, personal communication). In turn, studies show, language and information in social studies textbooks help shape students' perceptions of the world (Fournier & Wineburg, 1997).

A second rationale for teachers to promote students' critical evaluation of social studies textbooks resides in social justice equity issues in United States schools and in our nation. Educational research clearly demonstrates the connection between students' abilities to question information in their textbooks and their overall reading competence, which often show a relationship to their socioeconomic status, ethnicity, or English proficiency (Espinosa, 2005; Jenkins. 2012; Ravitch, 2016). Specifically, students who are good readers can concentrate on appraising rhetoric in their textbooks and in other texts, such as propaganda posters, movies, photographs, television, videos, video

games, advertisements, song lyrics, magazines, newspapers, and television advertisements. Hence, students who are critical readers are on the path to becoming informed citizens - a principle goal of the National Council for the Social Studies (National Council for the Social Studies, 2010). Conversely, students who are less able readers must concentrate on lower order reading skills, such as word identification, and fluency. As a result, they have difficulty directing their attention necessary to conducting a critical analysis of an author's message. Yet, "the civic mission of social studies demands the inclusion of all students [and closing the instructional gap] by addressing cultural, linguistic, and learning diversity that includes similarities and differences based on race, ethnicity, language, religion, gender, sexual orientation, exceptional learning needs, and other educationally and personally significant characteristics of learners" (National Council for the Social Studies, 2010, n p). Viewed through a Foucauldian poststructuralist lens, exemplary critical readers hold positions of power (See Foucault, 1982). Conversely, students who have difficulty evaluating the quality an author's argument cannot question an author's authority and thus, are marginalized (See Spivak, 1988).

### **Reading Critically to Become More Informed and Effective Citizens: A Primary Goal of the National Council for the Social Studies**

Congruent with the urgent need to foster students' abilities to critically engage with text, a recent poll reveals American voters are concerned the United States does not prepare young people with the literacy skills they need to compete across geographical boundaries (Partnership for 21<sup>st</sup> Century Learning, 2016). This opinion is corroborated by findings of a recent survey of higher education faculty. The majority of respondents believed their first year college students lacked ability to evaluate evidence and/or support for an author's claims and could not distinguish among fact, opinion, and reasoned judgment, which are all dimensions of critical reading (ACT, 2016).

This lack of preparation to read critically partially emanates "from a model of teaching ... in which students far too often have to "memorize answers that have been coded as 'facts' for one-time testing" (Berkeley Graduate Division, 2016, n p). Students who have learned to read text just to find the right answers have no understanding of what it means to question what they read (Bowling Green State University Center for Teaching and Learning, 2016). Yet, escalating information emanating from an ever-expanding fast paced world demands students not only know how to scrutinize text, they must also carefully consider information from many sources, including analyzing global contemporary social and environmental concerns and historical issues (Senechal, 2010). The reality is if students are to become more informed and effective citizens, which is a primary goal of the National Council for the Social Studies, they must be able to meet the demands and conventions necessary to analyze layers of meaning, rhetoric, and complex ideas in all sorts of informational text (Common Core State Standards Initiative, 2010b; National Council for the Social Studies, n d). In the following section we detail some of the rhetoric displayed in social studies text that pose challenges for students.

## **Specific Problems with Social Studies Textbooks Biased Positioning and Exclusions of Minorities**

Although social studies textbooks continue to improve, many contain authors' biased positioning, or omission of minority groups (Cruz, 1994). For example Romanowski (1996) found US history textbooks implied Japanese Americans were a threat to the United States during World War II although there was never any proof of their disloyalty (JARDA, 2005). Rubin (1994) observed errors in textbooks regarding the representation of present-day Middle Eastern social and political realities. In addition, Cruz (1994) detected that secondary level social studies textbooks portray Latinos in stereotypical ways. While Wolf (1992) noted African Americans depicted in a time period after slavery were portrayed as "frightened, confused, and helpless, perpetuating the stereotypes that blacks are inferior and simple" (p. 293).

More recently, a review of five well-known secondary school social studies texts incorrectly suggests the ultimate goal of African Americans during the Civil Rights Movement was to achieve economic growth rather than attain equality and justice (Romanowski, 2016). Women too, have been misrepresented. For example, a study of representation of women in United States textbooks both in number and manner found women were treated inequitably and stereotypically in relationship to their male counterparts and were also "viewed through a patriarchal lens" (Williams & Bennett, 2016, p. 124). And, in a 2012 dissertation that explored how American Indians were represented in five Florida textbooks, Padgett learned while overt racism had declined from previous years, information about "American Indians was simplified to support the United States national myth" (p. 1). Other research shows that American Indians have been afforded only a small space in textbooks and were often portrayed as obstacles to white settlers (Teachinghistory.org, 2016). A recent firsthand account also illuminates an omission of minorities. A teacher in one of my doctoral classes described her African American students' negative opinions of exclusions of minorities in their text. "There is only one Black person in this book," one boy said. Another responded, "You don't want to see white people every time you open this book. We want to see Black people making progress" (Nkrumah, 2016).

## **Language Tricks, Faulty Logic, Omissions, Inconsistencies, and Hidden Messages**

Authors contribute to social studies text challenges in other ways that Brookfield refers to as "language tricks" (2012). They may directly address readers (e.g., "you") to deliberately entice readers into agreeing with what the text says by "reflecting "back the readers' own image" (Temple, 2016, p. 8). Authors may also use faulty logic, present unsupported conclusions, and contradictions, and include inconsistencies and errors in reasoning (i.e., their argument, or claim is not based on sound facts or data) (Queen's University, 2016). There is also a possibility authors may present factually accurate information and, at the same time, they subtly, and intentionally convey their personal values and judgments by omitting important realities, or expressing distortions, outdated facts, or half-truths (Lenski, Wham, & Johns, 1999). A case in point is a McGraw Hill 2015, ninth grade geography textbook. In a now "rectified section titled "Patterns of Immigration," a speech bubble pointing to a U.S. map read, "The Atlantic Slave Trade

between the 1500s and 1800s brought millions of workers from Africa to the southern United States to work on agricultural plantations.” An African American mother noted, “calling slaves ‘workers and their move to the United States ‘immigration’ suggests not only that her African American ancestors arrived on the continent willingly but they were also compensated for their labor” (Wang, 2015, n p). In another case, scholars reviewing textbooks based on the “Texas Essential Knowledge and Skills” guidelines discovered a number of historical misrepresentations, among them several in McGraw-Hill’s proposed textbooks. These issues included declaring that a “Muslim garb hinders women’s rights, palliating the inequalities African Americans faced under Jim Crow, and representing slavery as only a secondary cause of the Civil War” (Brown, 2015, n p).

Other concerns are that authors may deliberately select particular words and phrases, such as figurative, discriminatory, or inflammatory language designed to evoke readers’ emotions and feelings about a topic, such as sympathy, anger, or resentment. They may also affect readers imaginatively by making sweeping generalizations (i.e., applying a general statement too broadly, such as, “*The distinction between Germans and Americans is that all Germans are overly formal while Americans are not.*” Furthermore, authors can affect readers *intellectually* by covertly conveying ideas, impressions, and suggestions to the reader (Collins Learning, 2015).

To foster students’ analytic skills to detect controversial content, such as documented above, scholars note it is important for teachers to offer specific lessons in critical analysis (DeVoogd, 2016). To assist teachers in their critical analysis instruction, in the following section I present a lesson in which I modeled reading critically to students that included purposefully annotating text.

### **Modeling of a Comprehensive Critical Reading Lesson**

(Some lesson ideas suggested and modified from Deal & Raeshare, 2013; Fisher & Frey, 2015; Moss & Loh-Hagan, 2016; Tomasek, 2009).

Teacher modeling is a highly efficient way to help students grasp the basic elements of text analysis. In fact Brookfield (2012) observes that teacher modeling “can set a tone for openness that significantly influences students’ readiness to delve in to their own assumptions” (p. 61). By modeling, teachers give students confidence, and demonstrate “what they can and should do when they read text analytically” (Horning, 2007, n p). In this section I present an initial critical reading social studies lesson I offered to fifth grade students. The students who participated in the lesson attended an after-school tutoring program one afternoon a week at a local public school. Their ages ranged from 11-14.

To initiate this first comprehensive critical reading lesson, I selected a short text related to a social studies topic students were currently studying in their after school tutoring sessions. Since learning to read critically, like most learning, is developmental and incremental, I chose a less complex text for this initial modeling session (See Appendix A for an annotated excerpt of this text). I planned to move on to more complex text when the students developed more understanding of the critical reading process.

To prepare for the lesson, I previewed the text to pinpoint any unusual vocabulary, author's biases, and sweeping generalizations, or language designed to evoke readers' emotions. I also identified the author's main argument (e.g., "Dropping the atomic bomb on Hiroshima was necessary and the only way to end the war with Japan"), supporting statements ("President Truman was told that if the US invaded Japan, mass casualties would occur") (Appleby, Brinkley, Broussard, McPherson, & Ritchie, 2010), and conclusions (e.g., "In order to prevent mass casualties, the United States dropped the atomic bomb on Japan to end the war"). In addition, I had a variety of pertinent sources handy (e.g., *Library of Congress Teaching with Primary Sources* website, the *National Archives* website) to encourage students to corroborate across sources to form a historical interpretation, and to check the validity of an author's argument and supporting evidence (Wineburg, 1991a, 1991b).

Next, I displayed the text on an overhead projector for students, and I modeled my thinking as I read aloud and portrayed a critical reading stance. Students listened and observed as I skimmed the text.

I said, "By the title and the subheadings I know this passage is about World War II. I need to think like a detective and figure out what assumptions, or beliefs I have about World War II, and how my assumptions shape my views as I read. You've been studying World War II. What do you know about that topic?" Students responded and I jotted down their ideas (e.g., "bomb; fighting; atomic bomb; Japan). At that point I helped students look up more information about World War II and the atomic bomb.

Then, I continued reading aloud, sweeping my hand across the text and stopping at crucial places in the text, such as the author's arguments and supporting statements. As I underlined the argument in the text (See Appendix A for an annotated excerpt of this text), I said, "Students, here's how I found the author's argument, or claim. I looked for the point the arguer (author) was trying to make and answered the question 'So what's the point?' Remember, the claim is the conclusion that the arguer is trying to make (see Hillocks, 2010). Let's look at this excerpt from a public statement from President Truman (See annotated excerpt in Appendix A). He says, 'Having found the bomb we have used it. We have used it against those who attacked us without warning at Pearl Harbor, against those who have starved and beaten and executed American prisoners of war, against those who have abandoned all pretense of obeying international laws of warfare. We have used it in order to shorten the agony of war, in order to save the lives of thousands and thousands of young Americans. We shall continue to use it until we completely destroy Japan's power to make war. Only a Japanese surrender will stop us" (DougLong.com, n.d., n p).

As I underlined the text, I said, "In this excerpt, I see that President Truman's claim for dropping the bomb is, 'We have used it in order to shorten the agony of war, in order to save the lives of thousands and thousands of young Americans. This is the point that he is making in this excerpt. I'm going to place a star by the author's claim, or purpose for writing this text and I'll connect his claim with arrows to his supporting evidence. This will help us revisit the argument-claim connections to rethink their appropriateness and

soundness.”

During this process I shared my own struggles with the text (e.g., “I don’t know what *hypocenter* means. So, I have to look it up right now on my computer thesaurus. *Hypocenter* means the point of origin of an earthquake or a subsurface nuclear explosion. The term *hypocenter* is also used as a synonym for ground zero, the surface point directly beneath a nuclear airburst”). As I modeled, I continued annotating the text (e.g., circling unknown, or confusing words, formulating questions I had about the author’s statements, placing question marks, etc.). Taking the part of a critical reader, I also asked more questions aloud, such as, “What evidences from the text challenges my initial assumptions – what I believe is true? Whose voice, or what groups of people are left out of this text? Who is marginalized? What information (if any) is incorrect? In what ways does the author show her biases?” Following each question I asked, “Can anyone help me answer this question I have as a critical reader?” (See Tomasek, 2009 for additional questions teachers might ask in a critical reading lesson).

As I moved further through the text I underlined main points, highlighted keywords and phrases that I said confused me, wrote margin notes restating the author’s main ideas, and wrote down additional questions the students and I generated from the text, our discussions, and by activating our background knowledge. I also provided a risk free environment to encourage students to share their own ideas and questions about the text, and to talk with peers about confusions they might have about the processes of critical reading. To close the lesson, I asked students to record the date in their Critical Reading Notebook and then write what they learned about critically reading a social studies text like a detective. I also asked students to work with a partner and share what they learned from the lesson, such as, “I learned how to draw arrows from the author’s main argument to her supporting evidence”; “I learned to skim the text prior to reading critically so I could get an overview of what the text was about. Then I distributed individual copies of a “Critical Reading Guide” to students so they could begin to analyze the next section of the text independently. I share this “Critical Reading Guide” in Appendix B, and invite teachers to alter the Guide to fit their students’ instructional needs. Teachers may reproduce the Guide for classroom use.

## **Summary**

As DeVoogd (2016) argues, “If schools only teach the social studies content typically found in standard textbooks, they are leaving students vulnerable to manipulation by texts, movies, or media that may seek to control popular opinion for their own purposes. Schools need to prepare students not just to learn information, but to learn strategies that will help them understand the perspectives behind the way the information is presented and what other perspectives may exist” (p. 5). Responding to DeVoogd’s (2016) point of view, in this presentation I will shared specific information about social studies text problems and portray a critical reading lesson designed to prepare students to read analytically. In Appendices I have supplied an excerpt of an annotated text, I will use in the lesson, and a “Critical Reading Guide” that teachers may reproduce to help their students analyze social studies text independently.

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## Appendix

### Figure #1: Example of a Critical Reading Guide

Text Title: \_\_\_\_\_

#### **Prior to Reading**

1. Begin by skimming the text, including the title, sub headings graphs, charts, photographs, and other visual information. Reread the subheadings and jot them down so you can review them. The subheadings provide information about the text.
2. What is the topic discussed in this text?
3. What background knowledge do you have about the topic discussed in the text? If you do not know much about the topic discussed in the text, take time to find information on the topic from other sources. What did you find out? Write this information so you can review it.
4. What assumptions (i.e., ideas you think might be true) do you have about the topic discussed in the text? How might your assumptions influence your abilities to read this chapter critically?

#### **During Reading**

5. Do you believe or disbelieve what you are reading and why or why not?
6. What new vocabulary terms have you discovered? Take time to write these vocabulary terms in complete sentences so you can review them.
7. What is the author's argument or purpose?
8. What evidence does the author supply for his/her argument or purpose?
9. Does the author provide sufficient and appropriate evidence for his/her argument or purpose? Give a reason for your opinion.
10. What other evidence might help the author's argument?
11. What are the author's conclusions?
12. Are the conclusions appropriate or inappropriate? Why or why not?
13. What biases (if any) does the author have?
14. What groups of people (if any) are missing from this text, or what information is missing?
15. Explain and write your thinking about why these groups of people or information are missing from the text.
16. What emotional words to influence your thinking does the author use?
17. What sweeping generalizations does the author use?
18. What questions or confusions do you have about critically analyzing this text?
19. Describe how critical readers think and what critical readers do as they read like a detective.
20. What do you need to learn about critically analyzing social studies texts?

# Global Competency for an Inclusive World: The Design of a Global Literacy Test Unit on Issues of Socio-economic Development

Kwok-Cheung Cheung<sup>1</sup>, Pou-Seong Sit<sup>2</sup> and Wai-Teng Chan<sup>3</sup>

University of Macau  
<sup>1</sup>kccheung@umac.mo  
<sup>2</sup>pssit@umac.mo  
<sup>3</sup>waitengchan@umac.mo

## Abstract

The cultivation of global literacy, a 21<sup>st</sup> Century Skill, is high up the education agenda of the basic education curriculum practiced around the world today. In 2016, OECD released a document entitled “Global Competency for an Inclusive World”. The definition of Global Competence entails the capacity to analyze global issues critically and from multiple perspectives, as well as to engage in open, appropriate and effective interactions with others from different backgrounds on the basis of a shared respect for human dignity.

This study seeks to explore how to design test units assessing 15-year-old students’ knowledge and understanding of pertinent global issues on Socio-economic Development. The title of the test unit is SUPERFOOD – QUINOA. It consists of a number of test items (multiple-choice versus open-ended) to be administered to the examinees on a yet-to-be-designed computer-based testing platform. One issue examined in this test unit is the government policy of the under-developed countries to export quinoa in large quantity to the developed countries for daily consumption as healthy diet. To answer the questions demonstrating higher level of global literacy, students are required to analyze the issues therein critically and from multiple perspectives.

Through chatting with the computer agent(s) about the issues on socio-economic development in a globalized world the researcher understands the perspective that the student takes, at the same time revealing student’s ability to interact with the computer agent(s) respectfully, appropriately and effectively. Through analyses of the responses to the open-ended questions, progressive levels of student global literacy can be assessed. Upholding the core value of human dignity, this study is important to assess student global competence for an inclusive world.

**Keywords:** global literacy, global competence, human dignity, socio-economic development, test design

# **Influence of ELL Instructor's Culturally Responsive Attitude on Newly Arrived Adolescent ELL Students' Academic Achievement**

Kisong Kim

The School of Education  
St. John's University, USA  
kisong.kim10@stjohns.edu

## **Abstract**

The demographic composition of U.S. schools has been changing rapidly with growing population of English Language Learners (ELLs): National-origin-minority students who are limited English proficient in the US. In 2013-2014 academic years, the ELLs in U.S. public schools reached approximately 4.5 million or 9.3 percent of the entire U.S. student population (USDOE, 2016). While ELLs reside throughout the U.S., they are heavily concentrated in the six states of Arizona, California, Texas, New York, Florida, and Illinois States (Payán and Nettles, 2008). The Demographic Report of NYCDOE of the school year 2013-2014 by a department of ELLs and Student Support showed that over a quarter of all ELLs were in high school grades. In the report, ninth-grade showed the highest concentration with 13,923 ELLs, potentially signaling a major entry point for recently arrived ELLs.

ELLs were protected by the Civil Rights Act of 1964 (1964), which required schools to improve language deficiencies of students for them to fully participate in the education system. Under Title I, the Elementary and Secondary Education Act (ESEA) of 1965 provided supplementary compensations to school districts with students who were disadvantaged by their home lives, economic environments, the quality of the education, the social class backgrounds, and the special educational needs (LoPresti, 1971). Then, schools have responded to the next federal requirement, the No Child Left Behind (NCLB) Act of 2001. One of the goals of NCLB Act required ELL students to acquire proficiency in English and reach high academic achievement in Reading, Language Arts, and Mathematics. Also, states must have adopted college and career-ready standards in the subjects designed to raise the academic performance of all students, including ELLs. Furthermore, Every Student Succeeds Act (ESSA), bipartisan legislation, was signed by President Barack Obama in December 2015 to prioritize both excellence and equity for the students and to support educators. The rapid growth of the ELL student population and the escalation of federal accountability requirements addressed researchers' attention to the unique needs of ELL students.

Even with the increased attention, the achievement level still lags behind their non-ELL counterparts. To understand the discrepancy, a yearlong ethnographic study was conducted to evaluate the influence of the ELL instructor's culturally responsive attitude on newly arrived adolescent ELL students. The theoretical framework used for this study was Geneva Gay's Culturally Responsive Teaching. Gay (2010) defined culturally responsive teaching as "using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them." The culturally responsive attitude

encourages teachers to align their classroom instruction with the individual student's circumstances to differentiate the daily lessons for ELLs. ELLs can most benefit to achieve English proficiency and meet the standard of content knowledge by differentiated instruction since students' individual needs are recognized based on background, experiences, language, culture, and their academic readiness.

The focus of this study was to investigate how teacher's culturally responsive attitude is facilitated for newly arrived adolescent ELLs in preparing for postsecondary education (college and career ready). This ethnographic study used qualitative methods for data collection and analysis which includes observations and interviews. During the observations, the researcher examined the way teachers interact with their students; evidence of culturally responsive teaching practices in lesson plans and preparations; student arrangements during classroom activities; resources and documents used to support culturally diverse students; and engagement of students during discussions, group work, and individual assignment. Triangulation of multiple resources like recording, memo, pre- and post-discussion, and clarification were used to assure the trustworthiness. The researcher also performed member checks, enough number of interviews and observations, constant comparison, and provide a thick description of the data and findings. The data like field notes, interviews and observations were traceable back to original sources like raw data, data reduction, data reconstruction, and process notes. One ELL teacher was recommended by the principal of the Urban public high school. Participation in this study was voluntary in both the observations and the interviews of the research process.

Due to space limitations, the two most prominent findings were discovered from this study and they were mainly focused on the teacher's cultural awareness and teacher's high expectation. First, the teacher's cultural awareness was evident from the interviews and observations. In the interviews, the teacher frequently stressed the significance of connecting his lesson and presentation to the individual students' culture. He said, "it's more about cultural support than just the language." He further clarified, "they come here in 9th or 10th grade. Their whole life is in another country, and it's a very hard transition." During the observation, it was evident that the teacher encouraged students to express and explain their experiences and culture during the class discussions. During the ELL student's presentation in the mainstream classroom, the ELL instructor reinforced students to be proud of where they came from and provided supports, clarification, and thoughtful questions during the presentation.

Next, the teacher's high expectation on students' academic performance was found in interviews and observations. During the interviews, the teacher emphasized the importance of dedicating to students' learning, building students' independent work ethics and decision-making skills; encouraging students; and believing students' potential.

"I think that what we're doing is preparing them for the world. We tend to nurture them and be very over protective... [but] you want them to have the skills that they require to get out into the real world because that's going to be the reality."

During the observation, the teacher provided clear examples with a demonstration for ELLs to understand the content better; provided higher order thinking questions; continuously evaluate students' language skill growth. The teacher further emphasized the importance of post-secondary education which showed his belief in ELLs' potential to proceed to college. In the lessons, he provided preparation lessons for college access, allowed students to search colleges and their requirements, and reinforced students to provide self-governing ideas and works.

By examining ELL instructor's culturally responsive attitude through the lens of newly arrived adolescent ELLs' needs, the teacher's influence on ELLs' academic performance was derived. The newly arrived adolescent ELLs' language ability could have foreseen the frustrating negative results on students' academic opportunities and achievement, but the misconceptions cannot be an excuse for not providing any culturally responsive pedagogy. Making a facilitating and welcoming learning environment for ELLs is critical for students' intellectual development. Since the majority of ELL students were anonymous in the mainstream classrooms and apart from true learning, educators should be encouraged to find methods to assist ELLs' academic learning. Although some researchers argue that it is almost impossible to measure ELLs' college readiness, it is an undeniable truth that everyone has the right to further education with a reasonable measure and access.

**Keywords:** english language learners (ELL), college-readiness, culturally responsive teaching, cultural awareness, high expectation

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# Educating for Global Competency: Finding Our Way Into Each Other's Worlds

Angela K. Salmon<sup>1</sup>, Irene Delgado<sup>2</sup> and Paula Almeida<sup>3</sup>

College of Arts, Sciences and Education  
Department of Teaching and Learning  
Florida International University

<sup>1</sup>salmona@fiu.edu

<sup>2</sup>palme008@fiu.edu

<sup>3</sup>idelg012@fiu.edu

## Abstract

Educators and the community are responsible for offering learning opportunities that meet the needs of the 21<sup>st</sup> century learners and help them navigate in a diverse and changing world. This paper aims to present a service learning experience where pre-service teachers, teachers and young children embarked in an immersion-like experience as they joined a learning journey with children and teachers around the world through the Out of Eden Learn platform. Out of Eden Learn is a Project Zero initiative at Harvard Graduate School of Education in collaboration with Paul Salopek, a Pulitzer Prize-winning journalist and National Geographic fellow. It has taken an innovative approach to promoting cross-cultural inquiry and exchange; it combines the appeal of social media with the concept of slowing down (Dawes Duraisingh, 2016). The Out of Eden Learn helps children develop global competences and 21<sup>st</sup> century skills. The philosophical framework for this project draws from constructivist approaches to teaching thinking and learning. Children and pre-service teachers are expected to become active learners as well as contributors of knowledge in the classroom. Young children should be involved in real experiences if they are to understand concepts about their social world. In addition, it is essential that pre-service teachers constitute the primary source of provocative experiences. Hence, it is critical for pre-service teachers to examine the connections between real world issues and other areas of the early childhood curriculum as a prerequisite for designing integrated curricular and instructional activities for their students (NAEYC & NAECS/SDE, 1991).

To succeed in school and life, teachers should foster the development of thinking skills, content knowledge, and social and emotional competencies to respond to the demands of the century and be prepared for jobs that do not exist now. Thus, well prepared teachers should be globally aware and able to teach their students how to investigate the world, recognize diverse perspectives, communicate ideas, apply their knowledge to make a difference, and involve the community to reach these objectives. In other words, students need to develop 21<sup>st</sup> century skills and global competences.

The Partnership for the 21<sup>st</sup> Century Learning (2017) recommends an education that promotes interdisciplinary themes including global awareness; financial, economic, business and entrepreneurial literacy; civic literacy; health literacy; and environmental literacy. Additionally, students who are prepared for increasingly complex life and work environments in today's world should master four skills: Creativity and innovation,

critical thinking and problem solving, communication and collaboration. These skills lead us to think about educating students for global competence.

Boix-Mansilla and Jackson (2011) define global competence as the knowledge, skills, and dispositions to understand and act creatively and innovatively on issues of global significance. Globally competent individuals are aware of issues taking place around the world (global awareness); they recognize perspective; take action (global engagement); and communicate effectively. The need to focus on understanding world issues, taking perspective, being inquisitive and engaged is an important aspect of a 21<sup>st</sup> century education. Perspective taking, the capacity to understand how others view their world is at a premium in a world of increasing diversity and complexity.

This paper reports how the Out of Eden Learn project is conducive to open opportunities for students to become globally competent and develop 21<sup>st</sup> century skills. It shows evidence of natural and engaging ways to connect learning to an interconnected world. It provides students with opportunities to connect world-wide with the use of technology. Out of Eden Learn provides children and teachers a safe platform from which students from around the globe engage in journalist Paul Salopek's "walk around the world." Within this platform, children participate in projects that help them slow down, discover themselves, their heritage, neighborhoods, culture, and investigate global issues and exchange their projects with children around the world. The project clusters six to eight diverse classes into private groups or "walking parties" to participate in a 12 to 15-week learning journey together. This structure exposes students to a variety of perspectives and cultural encounters (Dawes, 2016).

This paper tells the story of learning of a collaborative effort between pre-service teachers, kindergarten, first and second grade students and teachers from two private schools and two public schools in Miami whom embarked in the journey with Paul Salopek around the world. The pre-service teachers had a service learning component in one of the undergraduate early childhood courses. As a result, the pre-service teachers and the teachers embarked in a learning journey together using the Out of Eden Learn platform. The Out of Eden Learn project opened doors for children and adults to explore their own cultures and learn about the everyday lives of other people. The participants found out that when children make personal connections and develop empathy they were most likely to gain a deeper understanding of people's lives. The Out of Eden Learn platform exposed children and adults to new places and cultures and engaged them in projects about their communities as a provocation to reflect on their cultural identity and share with children from around the world. For example, after a neighborhood walk, they drew a neighborhood map and shared it with their walking party. The experiences were documented; pre-service teachers, teachers, and children revisited the documentation; it helped them gain awareness and take perspective. The experience not only helped the teachers comply with the curriculum goals, and Common Core Standards, but it also allowed them to keep alive the children's capacity to be curious and empathetic. The teachers used thinking routines and global thinking routines to help children slow down and observe the world around them. The children developed a sense of self-understanding and self-identity as a point of reference to develop a perspective and understanding of other cultures. Rinaldi (2001) states that

the role of the teacher is critical in forming relationships with children and structures in classrooms that facilitate listening and signal recognition. Teachers and children learned from each other.

There were many curriculum connections and interdisciplinary learning. In the process, the children were able to make meaningful and functional use of language and literacy to communicate with children from other countries; in social studies they were able to learn about themselves, their community and other countries, cultures, and stories; in math they developed a sense of distance and time; in science they understood climate differences and so forth. The children went beyond standards, most of all they were cognitively and emotionally engaged.

The participating children come from culturally and linguistic backgrounds. The Out of Eden Learn experience helped them develop resilience and accelerated their second language acquisition naturally. For Rinaldi (2001), children have a right to be listened to; when adults pay close attention to children, they foster their learning. The presenters stress out the value of listening to children through informal conversations and documentation, thereby validating their ideas and understandings. The Out of Eden Learn platform allowed the children to express themselves and to listen to each other. It is as much about students exploring their own cultures as it is about discovering the everyday lives of other people.

**Keywords:** global competence, out of eden learn, thinking, curriculum, thinking routines, project zero

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# Science/technology/society Interaction Course to Develop Global Citizen Competencies

Barbara S. Spector<sup>1</sup> and Lois A. Ball<sup>2</sup>

College of Education  
University of South Florida  
<sup>1</sup>Spector2@usf.edu

Lois A. Ball  
Science and Education Consultant  
<sup>2</sup>laball@mail.usf.edu

This historical case study describes the evolution of a template for an undergraduate education course, open to students in all colleges in the university, that contributes to learners developing competencies needed for global citizenship and supports STEM (Science-Technology-Engineering-Mathematics) literacy, a current societal priority. This course has been taught face-to-face, as a hybrid, and fully online with equal success. It has also been used effectively in the Honors College on campus. It can be replicated in other institutions for delivery face-to-face, hybrid, or online. The philosophical basis of this course, stages of development over more than two decades, lessons learned from research on successive iterations of the course, intended student learning outcomes, specific objectives, and replicable activities to attain global citizenry will be presented.

## Context/Rationale

In order to resolve issues or solve problems in a scientifically and technologically driven society, it is necessary to understand the reciprocal relationships among science, technology, and society. This course provides multiple events that serve as data for students to analyze situations and synthesize solutions, two explicit competencies needed for global citizenship (Mitchelle & Fulton, 2016). (Please note: Technology is anything that solves a human problem. It is not a synonym for computers and related electronic hardware.)

## Current Course Overview

This course is organized as a flipped classroom based on constructivist principles. The instructor's role is to facilitate discussions in which students use their synthesizing skills to construct meaning, in contrast to the instructor's role being one who dispenses information. Processes used in the course encourage the formation of a close-knit community of practice/learners in which each learner's prior knowledge is highly valued. This has been the case even when the course is fully online. Resources for students to use are available in a virtual resource center (VRC) through a course management system at no cost to learners. Resources include academic papers, popular press articles, videos in multiple formats, and other forms of media. Learners are also encouraged to add relevant items they encounter outside the course to the VRC. Some of the most exciting items currently in the VRC have been those added by students. The extensiveness of the VRC provides students with choice. They are guided to select a

certain number of items from each section weekly focusing on a particular theme, thus enabling a learner to tailor study to his/her own interests.

All the tasks in which students engage require them to analyze and synthesize data from real world events to construct their own meaning for the interaction of science, technology, and society. Students write biweekly journals and biweekly media synopses on the discussion board in the course management system in which they explain the way they are modifying their cognitive frameworks as they combine new information with their prior knowledge. They are required to respond substantively to at least three classmate's writings each week. These responses commonly generate ongoing dialog throughout the week within the community. In addition, students analyze one Ted video each week, explore and analyze a community site of their own choosing, and conduct an analysis of their own oral and written performance using a self assessment/self evaluation tool at mid-semester and the end of the semester. In these ways analysis is distributed throughout the course. Students are encouraged to construct successive concept maps synthesizing their understanding three times during the semester. As a result, students are expected to develop a sensitizing perceptual screen that enables them to analyze any events they encounter for their component elements and synthesize them into a theory explaining the interaction of science, technology, and society grounded in the data from all their experiences.

### **Sample Global Citizen/STEM Learning Task**

#### **Futuring**

You want to start a company to produce an idea you have to solve a societal problem or enhance a situation, but you do not have funding. A venture capitalist wants to invest in a societally relevant startup company. Develop a grant proposal you will present to the venture capitalist in fifteen minutes.

#### **Do the following in preparation for the task above:**

Interview a representative from each of three different generations. Ask what two technologies or scientific breakthroughs significantly changed each person's life. When, and in what ways, did this innovation affect the individual's life? Briefly summarize your findings, and share them on Canvas in the discussion board.

Using a pattern(s) emerging from this experience to stimulate your thinking, identify a technology or scientific breakthrough that could change the lives of people in society twenty years from now. This may be something actually emerging now, or a figment of your imagination. Explain the way interaction among science, technology and society will occur related to your innovation.

Consider the venture capitalist needs to know at least (minimum) the following if he/she is going to fund your proposed company:

What is the innovation?

What is the societal problem it will solve, or current situation it will enhance?

How will your idea solve the societal problem, or enhance the current situation? What basic science concepts and basic technology concepts does the venture capitalist need to understand in order to appreciate what goes into the development of this innovation? (A minimum of two basic science concepts and two basic technology concepts are required.)

## Method

Published and unpublished research on this course, from its inception to its acceptance as a global citizen course in the University was reviewed to establish key events in the evolution of the course. Documents were arranged sequentially for study, including formal applications for various designations (e.g. as major works and majors issues course designation) within the university over the years. Strategies for data collection in the various research studies examined included participant observation; examination of student produced artifacts including online discussion boards with learners' journals and projects, student-student interaction, student-instructor interaction; and notes from interviews with course designers, course advisor board members, and guest presenters. The author of this study was a participant observer throughout the history of the course and collaborated with a variety of doctoral candidates and other colleagues in publishing ongoing research (Spector, 1986, 1995, 1997, 2000, 2005, 2013, 2014; Lewis, Spector, & Burkett 2001; Spector, Burkett, & Steffen 2002; Spector & Burkett 2003; Spector, Burkett, & Leard 2005; Spector, LaPorta, & Simpson (1995); Spector & Yager 2009).

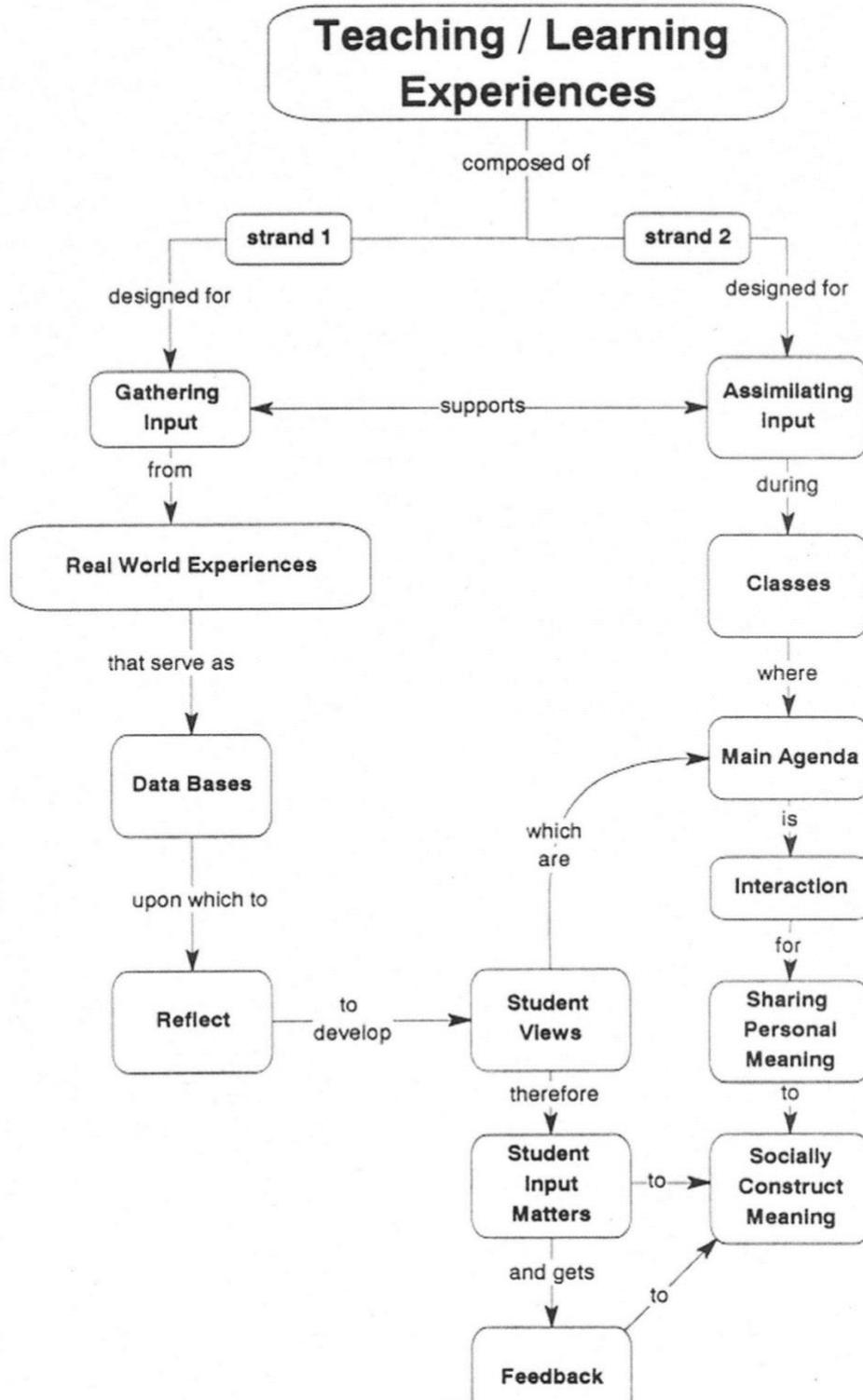
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Appendix

Figure 4



# Nursing Competence in the United States and Europe

Jessica Shearer<sup>1</sup> and Johanna Lasonen<sup>2</sup>

Brooks College of Healthcare Sciences  
Keigwin School of Nursing  
Jacksonville University, USA  
<sup>1</sup>jsheare@ju.edu

College of Education  
University of South Florida  
<sup>2</sup>jlasonen@usf.edu

## Abstract

Nursing practice and competence are guided by several paradigms including the concepts of knowledge and caring. Previous studies have established a link between nursing competence and better patient outcomes (Aiken, Smith, and Lake 1994; Blegen, Goode, Park, Vaughn and Spetz 2013), suggesting nursing competence is of utmost importance in workforce development. Lack of global agreement in defining competence in nursing creates confusion and further complicates the measurement and evaluation of competence (Cassidy, 2009; Sastre-Fullana, De Pedro-Gómez, Bennasar-Veny, Serrano-Gallardo and Morales-Asencio, 2014; Tilley, 2008). These challenges exist both in the United States and Europe.

Discussion of newly graduated registered nurses' competence, while entering the workforce, continues in the United States and Europe. This presentation will detail the literature on nursing competence as defined in the United States and Europe to help answer the following questions:

- (1) What are the epistemological and ontological starting points of nursing competence?
- (2) What are theoretical and conceptual frameworks?
- (3) How can nursing competence levels from novice to expert be identified internationally?

A literature review was conducted using ERIC and Cinal databases. The significant difference between models in the United States and Europe was the inclusion of a larger societal picture or community focus. Overall societal impact was included more often in European models than in the United States.

Although the terms competence and competency are used interchangeably a distinction can be made between the terms (McConnell 2001, Mustard 2002; Yanhua and Watson 2011). Competence describes the knowledge required for job performance. Personal characteristics have been identified in early competency models and have been used in cognitive assessments since World War I (American Psychological Association 2016; Eraut and duBoulay 1999). According to a Delphi study of 46 experts from the fields of philosophy, education, social science and physical science critical thinking includes interpretation, analysis, evaluation, inference, explanation and self-regulation (Facione 1990).

The development of competence has theoretical underpinnings in educational training, one of the epistemological starting points of competence with a profession. From the foundations learned in basic training, a nurse may grow in knowledge, skills and caring attitudes.

The inter-connectedness of human events, life processes, relationships, and spirituality combine to form epistemological basis for nursing practice (Watson 2007). In her Caritas Process, Watson (2007) identifies practicing values, instillation of hope, developing relationships and providing support as the caring science of nursing. According to Brenner's theory (2001) the graduate nurse or novice, moves through five stages of development which culminate at the level of expert who by education and experience, can automatically eliminate extraneous information to focus on holistic patient care with ease.

Legislative approaches political organizations in the United States like the National League for Nursing and the American Nurses Association and in Europe like the European Union Directive (2005) and the European Higher Education Area (European Higher Education Area 2010) influence professional competencies at entry level and on-going practice levels.

The health care delivery systems of the United States and Europe influence the approach to competence in each country and, therefore, affect the delivery of care. Although similarities exist, a publicly-funded health care system seen in many European countries shapes the standards of care to a broader community-based, preventative approach. In the United States, however, assessment of competence focuses on leadership qualities, or professional development.

## Implications

The development of international competencies will aid in the growing nursing shortage that is effecting healthcare universally. Economic conditions in the United States and Europe often precede staff shortages, complicating the already decreased number of nurses (Manzano-Garcia and Ayala-Calvo 2014).

**Keywords:** nursing competence, nurse education

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# Do Community College Students' Perceptions Impact Their Decisions to Transfer?

Jean Hearn

College of Education  
Creighton University, USA  
jeanhearn@creighton.edu

## Abstract

The objective of this study was to determine if the perceptions of urban community college students impacted their decision to transition into a four-year private Catholic university. The study design was quantitative in nature, using an electronic Likert Survey. The electronic survey was sent out to 208 early childhood education students from an urban community college, 67 of these students anonymously participated in the survey. Frequencies were used to describe the participant sample. Kruskal-Wallis tests were used to determine if there was a relationship between the dependent variable, the students' decisions to transfer, and the independent variables, the students' perceptions of the barriers to transfer retention. Pearson correlations were run to corroborate the Kruskal-Wallis tests. Lastly, multiple regressions were run to determine the predictability of a researcher-created transition/barrier perception model. The Kruskal-Wallis tests showed a statistically significant relationship between students' perceptions and their decision to transition, and the Pearson correlations supported most the Kruskal-Wallis' findings. The regressions showed that the researcher created model could be used as a predictor for community college students' decision to transition to four-year universities. In conclusion, these results supported the idea that the perceptions of urban community college students do impact their decision to transition into a four-year private Catholic university.

**Keywords:** community college, transfer, perceptions

# Integrating Problem-solving Procedures Into Concept Mapping to Enhance Student Learning in Undergraduate Engineering Education

Ning Fang

Utah State University, USA  
ning.fang@usu.edu

## Abstract

As competition rises in the global market, industries have set up increasingly high requirements for engineering graduates. Engineering graduates ought to have a solid understanding of fundamental engineering concepts as well as refined problem-solving skills. To meet the needs of industry, a variety of instructional techniques have been developed and implemented in the engineering classroom. Representative examples include computer simulations and animations, virtual reality, augmented reality, intelligent tutoring systems, electrical class response systems, and hands-on physical demonstrations and experiments (Campbell, Bourne, Mosterman, & Brodersen, 2002; Feisel & Rosa, 2005).

Concept mapping is one of the most effective graphical techniques that enables learners to visualize connections and relationships between concepts (Novak & Gowin, 1984). Initially developed by Joseph Novak and his colleagues, who sought to follow and understand changes in children's knowledge of science, the concept mapping technique has received increasing attention in recent years in the international education community (Ellis, Rudnitsky, & Silverstein, 2004; Watson, Pelkey, Noyes, & Rodgers, 2015). On a concept map, concepts are organized in a hierarchical or network form, with labeled nodes (in circles or boxes) denoting concepts, and linking words or phrases specifying connections and relationships among concepts. Two or more concepts that are connected by linking words or phrases form a proposition (Novak & Gowin, 1984). A significant amount of evidence has shown that concept mapping improves students' conceptual understanding on many subject matters in a variety of academic disciplines (Nesbit & Adesope, 2006). Furthermore, concept maps can also be used as a tool to assess student conceptual understanding.

Traditionally, the instructor develops a concept map, provides the map to students, and proceeds to explain the concepts included on the map (Cornwell, 2000; Egelhoff, Podoll, & Tarhini 2010). Students watch and listen to the instructor's explanations, instances of passive learning rather than active learning. Moreover, as its name implies, a concept map addresses concepts only and does not address problem solving. The present study makes two innovations. First, students (rather than the instructor) develop their own concept maps so as to promote active learning. Second, problem-solving procedures are integrated into concept maps, so students simultaneously develop a good understanding of problem-solving procedures while generating their own concept maps. In engineering, the ultimate purpose of understanding concepts is to apply concepts to solve practical problems. Therefore, problem solving is emphasized in nearly every engineering program.

This abstract only presentation describes how concept mapping was implemented in a second-year Engineering Mechanics - Dynamics course. This foundational course is required by undergraduates in many programs, such as mechanical, aerospace, civil, environmental, and biological engineering programs. The course covers numerous fundamental concepts and problem-solving procedures, such as force, velocity, acceleration, impulse, momentum, work, energy, Newton's second law, the principle of work and energy, and the principle of linear impulse and momentum (Cornwell, 2000). Throughout a 16-week semester, students learned eight major topics comprising 1) Kinematics of a Particle; 2) Kinetics of a Particle: Force and Acceleration; 3) Kinetics of a Particle: Work and Energy; 4) Kinetics of a Particle: Impulse and Momentum; 5) Kinematics of a Rigid Body; 6) Kinetics of a Rigid Body: Force and Acceleration; 7) Kinetics of a Rigid Body: Work and Energy; and 8) Kinetics of a Rigid Body: Impulse and Momentum. Each topic covers numerous concepts.

A total of 71 undergraduate students (64 males and 7 females) who recently took an Engineering Mechanics - Dynamics course at a public research university in the U.S. participated in the present study. The students' majors included Mechanical and Aerospace Engineering (34 students), Civil and Environmental Engineering (21 students), Biological Engineering (11 students), and other (5 students). Prior to the present study, all participating students signed a Letter of Informed Consent approved by an Institutional Review Board.

After each of the eight topics had been taught in the class, students employed a free computer software program IHMC Cmap Tools, specially developed for constructing concept maps, to generate their concept maps for each topic. IHMC Cmap Tools can be downloaded at <http://cmap.ihmc.us> and is simple enough for students to pick up without instructor guidance. This tool allows students to edit and modify their concept maps in a user-friendly way. Students can also add figures and equations to their concept maps. After students had completed their concept maps, they submitted finished maps to the instructor. At the end of the semester, students were asked to respond to a questionnaire survey and write comments about their experiences with concept mapping.

Figure 1 shows two representative excerpts from two concept maps generated by two students A and B. In Fig. 1a, student A described how to solve problems related to force and acceleration in particle kinetics. The map shows two problem-solving steps. In step 1, free-body and kinetic diagrams need to be drawn. In step 2, Newton's second law needs to be used to calculate force or acceleration components. In Fig. 1b, student B described how to solve particle kinematics problems using an absolute dependent motion analysis, including choose datum, write equations for each cord, and so on.



### **Figure 1: Representative Excerpts from Concept Maps Generated by Students**

Through qualitative content analysis of student comments, it was found that students had positive experiences with concept mapping. Concept mapping helped students make connections among concepts and review what students had learned.

Representative student comments included: “In the concept map, we can create a strategy for problem solving. We can break down problems into steps and learn that way.” “I usually didn’t really understand how parts of a chapter related until I did a concept map and drew lines connecting the different parts. After I made the maps I had a lot better understanding on what equations and methods to use to solve different problems.” “In the process of creating concept maps, I would look through and see new pieces of information that would explain how to do a problem I had been struggling with. It helped me piece together the bigger picture of how to solve certain, more challenging problems.”

**Keywords:** concept mapping, mechanics, problem-solving procedures

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# Analysis of Hopelessness Level of Senior Students of Sport Faculty According to Different Variables: Kocaeli University Case

İsmet Cem Kaba<sup>1</sup> and Murat Son<sup>2</sup>

Department of Physical Education  
Kocaeli University, TURKEY  
<sup>1</sup>cem.kaba@kocaeli.edu.tr

Sport Science Faculty  
Kocaeli University, TURKEY  
<sup>2</sup>muratson1979@hotmail.com

## Abstract

The Turkish word *ummak* (“to hope”) means wanting or expecting something to happen. There are two Turkish words deriving from the work *ummak*. One of them is *umut* (“hope”), which refers to the feeling arising from the act of hoping and is the synonym of *ümit* (“hope”). The other one is *umutsuzluk* (“hopelessness”). Hopelessness is defined as the state of having no hope, despair, and pessimism. Hope and hopelessness show the possibility of a person’s wish about the future to come true or not to come true. While the dominant thought is “the expectation about the future will come true” in the case of hope, hopelessness predominantly involves the thought, “the expectation will not come true, and objectives will not be achieved”.

Students attending sports faculties graduate from four different departments. Departments of physical education and sports teaching, trainer education, sports management, and recreation provide trained personnel to the sports sector. Employment opportunities and job opportunities in different positions after graduation are among the most important sources of motivation for students. They help the students to look to the future with hope. Worry about not having a job and being unemployed in the future despite the education received in a particular field may be one of the reasons leading to hopelessness.

The mean rate of appointment to a state institution as staff has been 3% among the graduates of nearly 70 departments of physical education and sports teaching in Turkey. Given the fact that there are about 15,000 graduates from schools of physical education and sports and sports faculties, these values are extremely low. In the light of these facts, the feelings, motivations, and expectations of students receiving education in the field of sports about the future are considered to be worthy of research. Although there are various studies on the same matter in the literature, it supports the up-to-dateness of the study that the problems still exist and the number of graduates is increasing everyday despite the reduction in student quotas.

In this study, an attempt was made to show the hopelessness levels of students about the future based on various variables. The survey model was employed. The study was conducted with 257 final-year students attending Kocaeli University Sports Science Faculty departments of Physical Education, Trainer Education, Recreation, and Sports Management.

The “Beck Hopelessness Scale”, developed by Weissman, Lester, and Trexler (1974) and adapted to Turkish by Seber (1991), was used for data collection. The scale consists of 20 items. 5 statements deal with feelings about the future, 8 with loss of motivation, and 5 with expectations about the future. The answers to the scale are “yes” and “no”. The range of score to be obtained from the scale is 0 to 20. The range of 0-3 means that there is no or very little hopelessness; the range of 4-8 means that there is mild hopelessness; the range of 9-14 means that there is normal hopelessness; and the range of 15 and more means that there is severe hopelessness. The Cronbach’ alpha coefficient of internal consistency was found to be 0.851 in the study. The coefficients of reliability obtained in the two studies were seen to be parallel. A coefficient of reliability over 0.70 was accepted adequate. Thus, the obtained data were accepted suitable for analysis. A demographic information form was created to obtain data related to the students’ demographic characteristics. The data were collected within three weeks from 09.12.2016 to 30.12.2016. 276 scale forms were gathered in total. With the review of the scale forms, 19 of them were found to be invalid and so excluded from the analysis, which was made over the remaining 257 data. The data were analyzed by “Mann-Whitney U” (MW-U) and “Kruskal-Wallis” (KW) tests. As the only two-variable parameter was gender, Mann-Whitney U test was used in the analyses about gender, while Kruskal-Wallis test was employed when there was more than one variable. Level of significance was taken as “.05” in all the statistical operations performed.

The students’ levels of hopelessness were investigated based on the variables of gender, status of knowing a foreign language, department, age, period of doing exercise, and sports branch. It was found that 48% of the students attending the above-mentioned four departments are not hopeless in general, whereas the remaining 52% are hopeless at various levels. Aside from 3%, who have severe hopelessness, those who are hopeless were seen to be almost equal to those who are not.

Gender was determined to have no significant influence on hopelessness, but the male students were found to be more hopeless compared to the female ones. Likewise, it was seen that knowledge of a foreign language has no influence on hopelessness. According to the findings of the study, levels of hopelessness do not vary by department among sports science faculty students. While the students attending the department of recreation have the highest level of hopelessness, those attending the department of sports management have the lowest hopelessness.

It was found out that mostly, age does not influence level of hopelessness among the students in the age range of 18-28. On the other hand, the period of doing exercise was determined to have no significant influence on hopelessness. While the group doing exercise for 7–13 years have a higher level of hopelessness compared to the other groups, the group not spending any particular time by doing exercise have the lowest level of hopelessness. The findings based on the variable of sports branch do not indicate any significant difference.

Though the present study was limited to the final-year students attending Kocaeli University Sports Science Faculty, a contribution was made to the literature dealing with

the determination of graduates' current levels of hopelessness, departing from the assumption that the same legal regulations and sector conditions are awaiting all the graduates finishing these departments.

**Keywords:** sports sciences, hopelessness, different variables

# The Politics and Practices of Curriculum Approval in Higher Education

Janet Applin

Western Kentucky University, USA  
janet.applin@wku.edu

## Introduction

Literature on curriculum approval in higher education is virtually nonexistent. The literature that is available examines effective curriculum development frameworks and strategies for curriculum development but not the approval process itself (Lattuca & Stark, 2011; Mestenhauser & Ellingboe, 1998). But for a very few opinion and editorial pieces, one is hard pressed to find any literature examining best practices for curriculum approval in higher education (Kilbourne, 2012; Small, 2015). The process is an agonizing slow one and, as John Kilbourne (2012) noted, “it is unfortunate that many colleges, which are charged with preparing the next generation of entrepreneurs and innovators, embrace a culture of time-consuming, unhurried progress when it comes to curriculum, personnel, and governance. Nowhere is this more evident than in their committee structures.”

## Background

There is a need for curriculum to be ever evolving and improving to meet the demands of new technology, new business models, and new mandates from a discipline’s governing and accrediting bodies, and new research in various fields. In higher education, navigating the waters of curriculum development and approval is often a challenging and slow process. Many academics avoid curriculum committees at all cost and choose to let others dive in to those waters. One may be surprised at the number of senior level faculty members in academia who have no knowledge of how new programs or new courses are approved. Often, once they are informed, they choose to leave their program as is, sometimes obsolete and out of date, rather than going through the arduous process. The question that led the study proposed for this roundtable discussion evaluated practices from over 25 master’s level institutions across the U.S. to evaluate institutional procedures for governing curriculum approval. The study investigated the steps involved in the process, the types of committees required, the timelines required and the stakeholders involved. Questions were raised related to faculty workloads and curriculum development, the length of the process, and the politics involved in garnering curriculum approval.

## Means for Discussion/Interaction

The roundtable participants will be introduced to the topic with a quote from Alex Small from his 2015 article, *A Geek’s Guide to Academic Committee Work: Mastering the dark Art of Curricular Kung-Fu*, “Even now, when I’ve mastered some of the dark arts of curricular kung-fu, it still annoys me to no end that even the simplest things require so many reports and meetings?” From there, a brief overview of the current study’s results will be presented and then four questions will guide the remainder of the discussion: 1) Is there an historical and empirical basis for the current curriculum development process

in higher education? 2) How long does it take to get a new program or new course approved at your institution? 3) What role do politics play in curriculum development and approval? 4) Might there be a better way?

To aid the discussion, the facilitator will share personal experiences with curriculum approval and political factors involved. In addition, data from the study will be available to spark additional discussion on comparing and contrasting procedures at different institutions. At the conclusion of the roundtable, handouts will be provided suggesting future research directions for curriculum approval in higher education.

### **Foreseeable Implications of the Discussion**

The facilitator of this discussion foresees two outcomes. First, is to develop greater awareness of the curriculum development process in higher education that may lead to questioning of the process. Second, is to spark an interest in creating a literature base in best practices for curriculum approval processes in higher education.

### **Recommended Next Steps/Actions**

Participants will gain insights into similarities and differences in institutions of higher education processes for curriculum approval as well as the political aspects of the process. These insights may be used as the participants return to their own institutions and seek to evaluate procedures required for curriculum development. In addition, intentional efforts will be made to develop possible collaborative research agendas to be pursued in this area.

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# Experiences of International Undergraduate Students Coping with Challenges at Andrews University During the Academic years 2014-2015: A Narrative Study.

Renaude Saint-Phard

Andrews University, USA  
saintpha@andrews.edu

## Abstract

International students confront multifaceted challenges in their host country. Most of the studies conducted do not give a voice nor do they explore these students' coping strategies. This qualitative study aimed to explore the cultural, linguistic, curricular, and financial experiences of 10 international undergraduate students and their coping strategies at Andrews University. The Bronfenbrenner's (1979) bio-ecological model of human development and the Australian Resilience International Student Education (RISE) theories (Sacre et al., 2010) guided this study to facilitate an interpretative and naturalistic approach, and understandings of the coping phenomenon. The findings implied that the overwhelming majority of the participants confronted various challenges and coped with them because of their resilience through their faith in God, motivation, determination, family ties and assistance, and the community support. This study will impact Andrews University, the higher education system, and globalization. It will increase enrollment, retention, and brain gain rates; internationalize the curriculum; and improve pre and post services to international students. It will help revamp policies and procedures with law providers, educators, administrators, professionals working in the fields of education, psychology, and counseling.

**Key Words:** international, challenges, coping

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**Table 9.** Participant Background Information

Name	Age	Sex	Year in School	Major	Country of origin
Akim	41	M	Junior	Finance & Risk Management	Eritrea
Appolos	25	M	Sophomore	Medical Engineering	Egypt
Carmen	22	F	Senior	Radiology	Hispanic /Columbia
Chen	22	M	Junior	Junior Accounting	Asian/ Korea
Esther	21	F	Senior	Education	Canada
Lee	22	M	Junior	Finance	South Korea
Linda	21	F	Junior	International Business	Haiti
Maria	22	F	Senior	Marketing & Management	Hispanic/Peru
Paulo	18	M	Freshman	Accounting	Mexico
Wan	21	F	Junior	International Business	Vietnam

**Table 2.** Background Information

<b>Emerging Themes</b>	<b>Sub Categories</b>	<b>Challenges</b>	<b>Coping Strategies</b>
<b>Relationship with God</b>	Prayer	Cultural/Religious	Faith in God: devotions, worships and vespers. Connection with God.
	Belief in the power of God	Cultural, linguistic, curricular,	God in control and total surrender to God
<b>Motivation</b>	Academic achievement	Curricular, linguistic, personal	Self-motivation, personal strategies
	Driving in the snow	Getting to school on time, driving, curricular, personal	Developing Strategies to arrive on time to school.
	Future plans	Personal, academics, employment, life calling, educational pursuit	Hope of successful career, employment, educational pursuit, life calling.
<b>Determination</b>		Personal, academic, religious, cultural, linguistic, curricular, financial	Potential, belief in their personal strengths, skills and desires.
<b>Community Support</b>	The university system	Personal, academic, religious, cultural, linguistic, curricular, financial	Help, resources available on campus, university culture, diversity, friendship
	Family Support	Personal, loneliness, linguistic, curricular	Sense of gratitude, respect, love and indebtedness

# How Research on the Epistemological Beliefs of Teachers Implementing Inquiry-based Practices Can Inform Undergraduate Teacher Education Programs Seeking a Shift Towards Inquiry-based Practices

Stacey Pistorova<sup>1</sup> and Ruslan Slutsky<sup>2</sup>

Heidelberg University, USA  
<sup>1</sup>spistoro@heidelberg.edu

University of Toledo, USA  
<sup>2</sup>ruslan.slutsky@utoledo.edu

## Abstract

The question, “what do we teach and how?” has long been debated within the United States and has led to significant competing views on teaching and learning between teacher and student-centered pedagogy. In a world where students access information at the touch of their fingers and there is a growing consensus on the need for inquiry-based approaches to education, it proves relevant to recognize the struggle teachers face within this deeply rooted polarity and the reality that inquiry-based educational practices continue to be a challenge for most teachers. While the tendency is to focus on the barriers to teachers’ ability to sustain inquiry and project based practices, this research study analyzes the role teacher education programs can play in shaping teachers’ pedagogical epistemological beliefs and supporting early childhood educators’ ability to engage in, implement and sustain inquiry-based approaches within their respective classrooms. The authors pose a challenge to teacher education programs to shift away from conventional models of teacher education that isolate content areas, disseminate knowledge through teacher directed instruction, and place standards at the center of their practices, by instead opening opportunities for dialogue around pedagogical practices that place the student at the center of teaching and learning and sustaining inquiry-based practices.

**Keywords:** inquiry; student-centered approaches; teacher education

# The Role of School Administrator in Providing Early Career Teachers' Support: A Pan-Canadian Perspective

Benjamin Kutsyuruba<sup>1</sup> and Keith Walker<sup>2</sup>

Queen's University, Canada  
<sup>1</sup>ben.kutsyuruba@queensu.ca

University of Saskatchewan, Canada  
<sup>2</sup>keith.walker@usask.ca

## Abstract

Research shows that school administrators' engagement is vital in creating a structure supportive of the induction process. Reviews of the literature found considerations of principals' impact upon school culture, principals' role as instructional leaders, principals' support of new teachers, their involvement in mentor selection, and the flexibility shown by principals in meeting school needs. Nevertheless, there is limited empirical evidence directly linking the role of the principal with the retention of teachers. This paper is based on the broad mixed method pan-Canadian study that examined the differential impact of teacher induction and mentorship programs on the early-career teachers' retention. In particular, this paper only discusses the study's results that pertain to the beginning teachers' perceptions of school administrators' role in the effective teacher induction and mentoring programs.

**Keywords:** school administrator, teacher induction, mentoring, early career teacher

Research shows that school administrators' engagement is vital in creating a structure supportive of the induction process. Reviews of the literature found considerations of principals' impact upon school culture, principals' role as instructional leaders, principals' support of new teachers, their involvement in mentor selection, and the flexibility shown by principals in meeting school needs (Long et al., 2012). Nevertheless, there is limited empirical evidence directly linking the role of the principal with the retention of teachers within the pan-Canadian scope. As education is a provincial/territorial responsibility in Canada, with attendant variations in school systems and policies, responses to early career teachers' needs and concerns tend to be compartmentalized and often remain unavailable to other jurisdictions. This paper is based on the mixed method pan-Canadian study that examined the differential impact of teacher induction and mentorship programs on the early-career teachers' retention. In particular, this paper only discusses the study's results that pertain to the beginning teachers' perceptions of school administrators' role in the effective teacher induction and mentoring programs.

## Theoretical Framework

Principal engagement is critical for induction and mentoring programs as their effectiveness depends on school's context and alignment with vision, instructional focus, and priorities set by the principal (Moir, Barlin, Gless, & Miles, 2009). School administrators' commitment to mentoring programs for new teachers either supports

and promotes the retention of novice teachers or undermines the success of induction and results in teacher attrition (Jones, 2002; Wechsler, Caspary, & Humphrey, 2008). Review of the literature revealed that assignment of mentors to beginning teachers is the most widely detailed aspect of school administrator's role in teacher induction and mentoring processes (Abu Rass, 2010; Bianchini & Brenner, 2009; Bickmore, Bickmore, & Hart, 2005; Fantilli & McDougall, 2009). Other duties included implementation of policy or program aimed at supporting of beginning teachers (Glazerman et al., 2010; Hellsten, Prytula, Ebanks, & Lai, 2009). Besides the supportive role of school administrators, several studies highlighted the expectations of school principals to supervise and evaluate the work of the new teachers (Abu Rass, 2010; Chatlain & Noonan, 2005). Hence, research points to the potential tensions between the principal's responsibility to foster growth-oriented professional development for new teachers and the administrative or evaluative capacity (Cherubini, 2010).

### **Research Methodology**

This study used mixed-methods approach to research methodology (McMillan & Schumacher, 2010). First, document analysis (Bowen, 2009; Prior, 2003) was used to examine the publicly available documents from provincial governments, teacher unions, and school districts to uncover the mandated roles, duties, and responsibilities of school administrators in teacher induction and mentorship processes in each jurisdiction (conducted in 2016). Second, this study utilized data from the pan-Canadian New Teacher Survey administered in 2016. Overall, the study sample (N=1343) included responses from new teachers the first five years of service from each province and territory in Canada. The close and open-ended responses were examined in a separate, but complementary manner. Descriptive statistics analysis of closed items was conducted, whereas open-ended responses have undergone phenomenological thematic analysis. This paper reports only on the items related to the role of school administrators in teacher induction and mentoring programs. Finally, telephone interviews were conducted with 36 teachers (from the original survey sample) from nine provinces and three territories (3 in French, 33 in English). This paper details their responses to the question pertaining to the role of school administrators/leaders in their induction and mentoring experiences. Combination of these research methods provided rich descriptive pan-Canadian data.

### **Analysis of the Data**

Survey results pointed out early career teachers provided mixed responses when asked about why they knew their school administrator wanted them to succeed. Some beginning teachers provided a *negative* response, where they indicated they did not know whether or not their administrator wanted them to succeed, that they felt their administrator did not care. Some non-permanent beginning teachers shared that they did not have an administrator given the nature of their current employment.

Beginning teachers shared that their administrator had *verbalized* their desire for beginning teachers to succeed. Verbalized desires included administrators giving beginning teachers advice, encouragement, and positive feedback. Administrators verbalized explicitly to beginning teachers that they wanted them at the school, and they

were clear about goals and hopes for beginning teachers. Administrators also verbally assured beginning teachers that it was OK when things did not go as planned in the classroom.

Beginning teachers also shared that their administrator had *demonstrated* their desire for beginning teachers to succeed by providing support, collaborating with beginning teachers, observing their teaching, and assisting them through the evaluation process. Administrators that demonstrated desire were available to talk, checked-in regularly, listened to beginning teachers' concerns, and generally cared about them. Beginning teachers reported that administrators demonstrated desire by offering a contract, recommending a beginning teacher for work, and by covering classes and offering relief time when possible. Administrators gave beginning teachers opportunities for professional development, pushed and challenged them to improve, trusted them to succeed, and gave them freedom to experiment with their teaching. Some beginning teachers also reported that administrators wanted them to succeed because they wanted the school and students to succeed.

Furthermore, in the interviews, beginning teachers reflected on the roles of their school leaders and administrators in their development as beginning teachers. They talked to us about the behaviours, relationships and supports that were most beneficial for them. The importance of having supportive administrators was the most frequent responses we got. Some interviewees told us about receiving limited or conditional support, and its impact on them, and some told us about the difficulties of having no support from their leaders. They advised new teachers to prioritize work-life balance above all else.

### **Discussion and Conclusions**

Research findings in this study pointed to a number of direct and indirect duties and responsibilities that school administrators across Canada had in relation to induction and mentoring processes in their schools. The results of this study suggest that although mentoring processes between beginning teachers and mentors are the most beneficial and helpful aspects of induction programs, they are insufficient without the support and commitment of the school administrators. As Birkeland and Feiman-Nemser (2009) noted, the success of a school-based induction program relies on the commitment and investment of school leaders. School administrators' commitment to and recognition of the importance of induction and mentoring programs positively or negatively influences the beginning teachers' justification of their own commitment to and understanding of the need for the program (Cherubini, 2009). Furthermore, Wynn, Carboni, and Patall (2007, p. 222) highlighted the importance of principal leadership, finding that "teachers who were more satisfied with the principal leadership in their schools were more likely to report planning to stay in the school district and at their school site." Ultimately it is the shared leadership, collegial decision-making, trust, and collaboration that create successful learning communities in schools (Darling-Hammond, 2003; Leithwood, Leonard, & Sharratt, 1998), help build the *collaborative instructional leadership* (Marks & Printy, 2003). Based on the findings of this study, several implications are offered for theory, practice, policy, and further research.

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# The Rise and Fall of Founding for U.S. Public Higher Education Institutions and the Impact on Structural Factors

Yuewei Shi<sup>1</sup>, Xi Lin<sup>2</sup> and Mingyu Huang<sup>3</sup>

Auburn University, USA

<sup>1</sup>yzs0062@tigermail.auburn.edu

<sup>2</sup>xilin@auburn.edu

<sup>3</sup>mzh0066@tigermail.auburn.edu

## Abstract

Public universities are an important component of modern U.S. higher education systems. Public universities provide opportunities for individuals to pursue educational goals and have fostered the popularization of continued education throughout the history of U.S. higher education. Public universities promote the construction of learning societies and lifelong learning systems. This poster will provide a detailed examination of the founding cycles for public higher education institutions and was developed using Longue Durée's theory.

Fernand Braudel, a French historiographer, created the Longue Durée theory for historical studies. "Braudel presented an in-depth clarification of his idea of time as a social structure rather than a simple chronological parameter" (Lee, 2012, p. 3). Compared to the traditional historical perspective, the Longue Durée theory emphasizes structural time and support to put individual historical events into a timeline which can then lead to a historical analysis.

The founding cycle for higher education institutions results in fluctuations throughout periods of time. This study will use the founding years of the U.S public universities as the basis for analysis and explore the characteristics of cyclical fluctuations throughout of the U.S public higher education history. This study will also use line graphs to describe the patterns beginning with the public universities' founding year and identify structural factors (e.g., technology, legal, legislation) that have occurred due to the internal and external environment.

**Key Words:** public universities; cyclical fluctuation; higher education history

## Reference

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# **Bullying and Cyberbullying: The Transition From High School to College**

Valerie Schwiebert<sup>1</sup> and Alexander Bass<sup>2</sup>

Western Carolina University, USA

<sup>1</sup>vschwieb@wcu.edu

<sup>2</sup>jnbass3@catamount.wcu.edu

## **Abstract**

Traditional bullying is mostly known for its presence in secondary schools ranging from elementary to high school, however, bullying has been seen at the university level as well. Bullying is defined as “acts of aggression that are repeated over time that involve a power imbalance between the perpetrator and his or her targets” (Kowalski & Limber p. S13). Acts of bullying can range from physical violence such as hitting, shoving, and spitting in one’s face, to verbal violence such as harassment and threats that occur in person.

Studies have been conducted to find the rate at which bullying occurs in high school and college, and to determine the correlation between being bullied in high school and in college. The MetroWest Adolescent Health Survey found that about 26% of high school students reported being a victim of bullying within the past twelve months (Schneider et al, 2012). The study did find, however, that bullying decreased by nearly half from grade 9 to 12. Studies that focused on bullying in college found that about 21% of 119 undergraduate students reported being bullied while in college. Most of those victims were bullied while in high school and elementary school, as well (Chapell et al, 2006). An additional study went on to investigate bullying from coaches and professors. It was found that about 19% of 1,025 college students had reported being bullied by either a coach or professor. The main limitations of these studies focus on the accuracy of college students being recall of events from elementary, middle, and high school. On the other hand, the individuals were at a mature age and should be able to distinguish events in K-12 education and in post-secondary education, and should be able to identify true acts of bullying (Chapell et al, 2006).

Overall, the studies concluded there was a positive correlation between being bullied in high school and being bullied in college. Additionally, study results were identified in the areas of cyberbullying and risk factors for being bullied. There was a paucity of information related to the psychological effects of bullying in college versus bullying in high school. Additionally, intervention and prevention strategies for students, instructors, and staff were lacking in the current literature. This presentation will provide a review of the current literature related to bullying in high school and college, strategies for assisting students with prevention and intervention will be suggested, and implications for high school and post-secondary students, instructors, and staff will be proposed.

## **Cyberbullying and its transition from high school to college**

A new form of bullying has arisen due to the new technological advances that have been made widely available to the public. Cyberbullying has the same underlying motive as traditional bullying, but can be more dangerous. Cyberbullying encompasses the use of electronic devices such as email, chat rooms and instant messaging, websites including social media, online games, and text messages to bully others (Kowalski & Limber, 2013). Electronic communication creates additional consequences not present in traditional bullying. Bullies can be anonymous and can reach a wide audience with ease. This allows them to have a reduced sense of responsibility and they can target individuals who would not otherwise be vulnerable to school bullying (Schneider et al, 2012). The cyberbullying attacks cannot be escaped. These attacks can happen at any time or place without warning. It is for these reasons cyberbullying should be studied to enhance the association between cyberbullying and psychological/emotional consequences experienced by the individual being bullied.

Cyberbullying does have the same consequences as traditional bullying but at a higher percentage. A correlation between cyberbullying and academic performance has not yet been identified (Kowalski & Limber, 2013). Undergraduate students stated that the consequences of cyberbullying can be intensified due to lack of social support. This results in an increased risk for eating disorders, depression, and suicide rates. There are also increased rates of depression, phobias and paranoia, avoidance in new friendships, and considering suicide following the bullying incidents (Tennant et al, 2015).

Even though it was found that cyberbullying does persist to college at a rate ranging from 8.6% to 43.3%, there are few studies done in relation to this topic. (Tennant et al, 2015). Forms of cyberbullying differ between high school and college, as well. The most frequent forms include an upsetting email or instant message, and having someone post something upsetting on social media. Since college students have more access to electronic communications, it may mean that they are at greater risk to be victims of cyberbullying.

In addition, there are individuals who suffer from PIU (compulsive Internet use) who are dependent on their Internet use (Gómez-Guadix et al, 2013). Even though these individuals are aware that they cannot control their Internet usage and are at a greater risk or are victims of cyberbullying, they are unable to stop using the Internet. Even those that do not suffer from PIU must use the Internet for school and other extra-curricular activities. High schools, as well as colleges, communicate assignments through Internet access. Though most high schools send out information regarding events via intercom and in person announcements, posters, etc., most college events are posted through emails and social media. The forms of cyberbullying change through the transition from high school to college, as well as the need to access the Internet. Even though college students can decide not to have social media pages, they still need an email account for school related purposes. As stated earlier, one of the most frequent forms of cyberbullying reported involved email accounts.

### **Substance abuse, depression, and self-harm related to traditional and cyberbullying**

In regards to depressive symptoms, those who suffered from both cyberbullying and traditional bullying suffered at higher rates followed by those who were victims of cyberbullying only and then traditional bullying only. The attempted suicide rates followed the same pattern (Schneider et al, 2012). Cyberbullying, however, was not found to influence the probability that victims will tamper with substance use between the ages of 13 to 17 (Gámez-Guadix et al, 2013). It is believed that substance use is due to a pattern of behavior issues exhibited in adolescence. These behaviors, however, could lead to an increased risk of becoming a victim of cyberbullying.

### **Gender identification and sexuality in regards to bullying**

Individuals who did not identify as heterosexual reported being bullied at twice the occurrence rates reported by heterosexual youth (Schneider et al, 2012). It was also found that the rate of victimization by cyberbullying greatly increased between non-heterosexual and heterosexual males (Wensley and Campbell, 2012). No significant difference was reported across women with different sexualities when it came to cyberbullying. Women who reported differing sexualities were more likely to be victims of traditional bullying, while men tended to be victims of cyberbullying at a higher rate. In addition, traditional bullying did decrease from secondary schools to universities among non-heterosexual individuals (Wensley and Campbell, 2012).

The Gay, Lesbian and Straight Education Network (GLSEN) gathers information about LGBT students in schools with regard to bullying. Students tend to use remarks such as “gay” or other homophobic remarks in a negative way. Teachers and school staff were also found to have made negative remarks towards LGBT youth (Greytak et al, 2016). Even though students reported feeling safe at school, a large percentage reported feeling unsafe which lead to increased school absences. One fifth of students reported being verbally harassed due to their gender expression or sexual orientation. Physical violence was reported less than verbal harassment (Greytak et al, 2016). LGBT youth were about five times more likely to be bullied or harassed based on their actual/perceived sexual orientation, and about three times more likely based on their gender expression. In addition, LGBT youth were more likely to experience sexual harassment and cyberbullying than non-LGBT youth (Greytak et al, 2016). They were more likely to miss school, and even had more school discipline issues than non-LGBT students.

Almost all transgender students reported being verbally harassed at school and more than half reported being physically harassed and assaulted. Those who experienced great levels of harassment had lower grade point averages and educational aspirations, and did not plan to go to college. More than three-fourths of transgender students have reported being sexually harassed, and two-thirds reported being cyberbullied (Greytak et al, 2009).

More specifically, LGBT youth were three times more likely to be bullied online, including one-third being sexually harassed online which is four times more likely than

non-LGBT youth (Palmer et al, 2013). An issue identified by LGBT youth was identified with regard to avoiding cyberbullying. Many LGBT youth go online to find resources ranging from health-related questions to trying to find other LGBT youth. Since harassment at school can lead to a lack of social support, when LGBT youth go online to find support, their risk of being a victim of cyberbullying is greatly increased. LGBT victims of online harassment had higher rates of depression and suicide.

A major issue that was found by researching LGBT bullying is that the bullying could be due to the perception of sexual orientation and gender identity. The youth did not have to be “out” to be a victim of bullying (Greytak, et al, 2009). This is a key factor to take into consideration. Most LGBT youth, who have not made public their gender identity or sexual orientation, are afraid to do so due to fear or rejection and bullying. If they are already being bullied based off someone’s perception of them, it will be harder for them to accept themselves and could lead to greater psychological issues.

### **Cyberbullying prevention and intervention**

Given the relationship of cyberbullying and other risk behaviors, strategies to prevent cyberbullying should be implemented as a part of interventions designed to reduce behavior problems during one’s adolescent years (Gámez-Guadix et al, 2013). When individuals start to express depressive symptoms, cyberbullying prevention programs should be implemented to promote self-esteem and help foster social support and connection. Since individuals who tend to spend much of their time on the Internet are seeking relationships and support, creating those relationships with people they interact with in person will help reduce the amount of Internet use and ultimately the risk of being victimized by cyberbullying. While providing counseling services, PIU should be treated like those dealing with addiction. Individuals suffering from PIU cannot easily stop their behaviors, increasing their risk of victimization, which could lead to an amplification of their PIU negative psychological symptoms. Since cyberbullying victimization increases depressive symptoms, risk of suicide, and the risk of suffering from PIU, it is important for individuals working with high school and college students to identify and implement prevention as well as intervention strategies to address the unique needs of individuals at risk of bullying and cyberbullying. These strategies and interventions will be further detailed in the paper and presentation. Emphasis will be placed on specific prevention and intervention strategies for students transitioning from high school to higher education.

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# A Case Study Examining the Attitudes and Perceptions of Branch Campus Commuter Students

Dianne Wright<sup>1</sup> and Sharon Bhooshi<sup>2</sup>

Florida Atlantic University, USA

<sup>1</sup>gtoussa1@fau.edu

<sup>2</sup>sbhooshi@fau.edu

## Abstract

Researchers share the perceptions and attitudes of branch campus commuter students attending a case study institution. Related studies, to date, that focus on student satisfaction have been conducted at residential campuses. The researchers share research results indicating why commuter students choose the branch campus over other campuses in the area. A mixed method study design was used. Branch campus enrollment trends were examined, a content analysis of relevant documents performed, responses to a branch campus commuter student survey, and student focus groups were conducted both at the undergraduate and graduate level. A sample of thirty branch campus commuter students were asked to respond to a researcher developed questionnaire adapted from the *Commuter Student and Student Satisfaction survey*, and followed up with two focus group; one consisting of undergraduate students and the other of graduate students. Variables of interest included age, gender, ethnic origin, student level, student grade point average (GPA), perception of educational benefits, satisfaction with branch campus and satisfaction with college experience. The researchers examined the role of commuting distance, the availability of academic program variety, and major. Spearman correlation and regression analyses, along with qualitative data analysis, were conducted using Nvivo software as well as Qualtrics in order to analyze the data. Results of this study suggest significant relationship among the variables; inferential analysis further proposes statistically significant impact of the selected variables upon student satisfaction. This study builds on the limited related research that currently exist, as well as serves as a basis for related future research.

**Keywords:** branch-campus, commuter, students

# Inspectional Regulations in the Latest Period of Ottoman Time<sup>1</sup>

Mehmet Emin Usta

Harran University, Turkey  
mehmeteminusta@gmail.com

## Introduction

Inspection history in Turkish context can simply be divided into two as: Ottoman Period and Republic Period. During Ottoman time, western style modern schools were mostly owned and managed by religious communities. There was not a proper structure or institution to inspect those schools notwithstanding Sibyan (Primary) and Rüştiye schools (secondary) were audited by specific inspectors named Muin(s). After 1862, though not in expected levels, in line with the increase in school numbers, the terms “inspection” and “inspector” started to be seen in official documents. Staff with auditing and inspection responsibilities were called as muin (controller) or muhakkik (investigator) (Öz, 2003). With this study, it is aimed to present the attempts to improve education by using inspection as a development triggering tool, in the latest period of Ottoman State. Both staff roles are also named inspectors as an umbrella term. Inspectors carried out their duties due to the principles -named talimatname- dictated by Ottoman ministry of education of that time.

## Methodology

Documentary analysis method was used for his study. This method aims to display historical and current realities as they are. Documentary analysis is about extrapolating and finding relations between written things by using historical and recent documents. Historical data are accepted as this method’s study area. Beside historical documents, archeological heritages are also conceived as sources to analyze (Karasar, 1999). In this regard, Archives of Istanbul University Library and Prime Ministry Archives were looked over for possible official documents about inspection issues related to the latest Ottoman period. Found examples were transcribed into modern Turkish letters to enhance understanding. Finally, findings are presented and then compared to the contemporary application in Turkey.

## Findings and Conclusion

This study covers three documents dated 23rd August 1895, 15 March 1906, and 2nd February 1911. According to the documents, it can be understood that inspectors had important roles within the education system of Ottoman State. Beside, their roles were clarified in detail. It can also be seen that governmental department responsible from primary schools had published instructions for inspectors consonant with the instructions of ministry of education describing how to carry out their duties. For community schools of people amongst the minorities, who converted to Islam, their

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<sup>1</sup> Aforementioned guideline was obtained and translated as part of a research Project (research ID: 1845) entitled “Education Inspection in Ottoman Empire from Declaration Of The Constitution (1876) to Republican era (1923)” that was conducted by Prof. Dr. Fatma ÖZMEN, Prof. Dr. Erdal Açıkşes, Asst. Prof. Dr. Mehmet Emin USTA, and Asst. Prof. Dr. Sıtkı ULUERLER and also funded by Fırat University Scientific Research Projects Coordination Unit.

need for inspectors were emphasised. For the inspection of those schools, one head inspector and one vice inspector (with an origin of population department) were appointed. Gender based (girls only or boys only) schools were also a part of their inspection. Instructions for inspectors were as follows:

1. Duty boroughs of each inspector should be divided into two.
2. Though official education language was Turkish, especially in Arabic speaking regions, Arabic speaker inspectors were needed. So where needed, inspectors were allowed to take assistance of experts with Arabic knowledge.
3. Ottoman alphabet, ilmihal (information about daily religious activities), dini akait (religious belief knowledge), tecvit (recitation types for Quran), and writing font should be sülüs or rika.
4. Cleanness of students and hygiene should be inspected. Five times daily prayers should be carried out with teachers.
5. School attendances should be checked and unattendies and their families should be fined in cash and local governors should be informed about those students' situation.
6. Inspectors should report inefficient and unsuccessful teachers beside the local governors, who decides unnecessary holidays. Local governors should be informed about school leavers by the inspectors. Final decision about school leavers should be decided by local education comission.
7. Inspectors are responsible for reporting disciplinary cases about both teachers and students to town governors if appropriate action are not taken than to the province governors.
8. Prayer rooms and mosques that need amendment and restoration in schools should be reported to town governors.
9. Inspectors are responsible to inspect not only parish primary and secondary schools but also converted (to Islam) people's schools.
10. Inspectors should advice teachers to give attendance tables and forms of students monthly to local education governors.
11. Inspection regions, divided into two, should be inspected interchangeably in every six months by head inspector and vice inspector. When needed, both inspectors can work on one region at the same time.
12. Inspectors should take an information document from teachers of schools inspected to give local education governors.
13. Inspectors should be careful about obeying the rules written in this instruction document and general rules of inpection.
14. Inspectors will not be paid for their travel and living expenses apart from their ongoing salary payments that are calculated beforehand regarding these costs.
15. This instruction has been confirmed by education commission and approved by prefecturate (Kommission, members, accountant, vice president, and president).

Moreover, while implementing inspections:

1. Appointed inspectors are not allowed to inspect same region or schools more than once in limited peiod of time. If an inspector does not visit the region or school s/he is responsible for a couple of times in a week, s/he will be accepted as resigned or sacked depending on the situation.
2. Schools should be three levels: First and secondary levels should form primary

schools and third levels should form secondary schools. Types of courses taught at these schools should be approved by prefecturate in regard with the national curriculum.

3. First level primary school teachers' recruitments should be done by parish governors while teachers of second and third levels are recruited either by governors at the capital city or province governors without any salary change. Newly recruited teachers, too are responsible for students' hygiene habits (toilet usage and tidiness of dresses), frequency of obeying the rules, degree of implementing 5 times prayers properly. Additionally, inspectors have the authority on behalf of parish governors to change schools of irregular attendent, unsuccessful, and inefficient communicator (with local people) teachers that they work at.

4. Teachers are responsible for preparation of two copies of attendance forms monthly to be signed by inspectors. Those copies should also be seen by local education commission and sent to city governorship. Insperctors should participate in graduation exams at schools, approve diplomas with education commission members, and record the number of students acquired diploma.

5. This document should be printed in required amounts and sent to related bodies. (23 August 1895, Gömlek no:20, File no: 284).

According to another document, province education governors ask for attendance reports for teachers and porters of village schools. They expect inspectors to audit whether curriculum is followed properly or not. Student attendance forms are an issue in this second document as well. Suggestions and refinements mentioned by inspectors should be put into action. This newer document acknowledges that travel and living expenses of inspectors will be paid to them later on. However, when this document is taken into account, it can be understood that school inspections were not carried out regularly as ordered (15 March 1906, Gömlek no:61, File no: 918).

A later dated document reveals that inspectors were confused by whether or not to audit secondary schools. Doubts of inspectors were answered in the same document as to inspect secondary schools with local education ministers but not high schools. (2 February 1911, Gömlek no:62, File no: 1167).

If three documents are evaluated together, secularism looks like affected inspections earlier than the decleration of Turkish Republic as religious education seems to be omitted from inspectional interests. When Ottoman period is compared to contemporary Turkey, it can be understood that there is a common issue of inspecting the attendances of teachers, students, and porters in both era.

**Keywords:** ottoman, inspection of education, duties of inspectors.

# From Independence to Interdependence: How Relationships Shape Togetherness-Learning

Julia Koinova-Zoellner

TU Dresden, Germany  
Julia.Koinova-Zoellner@tu-dresden.de

## Abstract

In the context of current geopolitical and societal developments in Europe and their impact on cooperation in everyday life, research in general didactics increasingly values social and personal proficiency besides knowledge acquisition. There is a tendency towards togetherness, i.e. in new interpersonal relationships in pedagogic situations peers, subordinate peers and coaches do things together. Simultaneously, changes from autodidactic to cooperative learning can be observed in academia. Universities have to develop social and personal skills in teacher trainees which qualify them to work together with both their colleagues and students. Reflexive student evaluations which were conducted in a course on general didactics at the TU Dresden offer insight into the will of students to take up courses that aim at developing these competencies. Assessment of those evaluations illustrates that not all students are willing to choose such classes as a matter of course, but that those who did get involved nurtured a positive mindset towards forms of cooperation. While social and personal proficiency remain a developmental challenge for both lecturers and students, changes in university teaching can already be observed where there is a shift from strictly independent to more cooperative forms of research and teaching.

**Keywords:** teacher education, cooperation, relationships, independence, interdependence

# Teaching With Business Cases: Is it for You?

Ahmed Maamoun

University of Minnesota Duluth, USA  
amaamoun@d.umn.edu

## Abstract

A business case is a description of an actual situation, usually involving a decision faced by the decision maker, in an organization. Most likely, a case is based on primary research, interviewing managers and staff. The case method of teaching is the set of educational techniques and “tricks of the trade” that instructors use in the classroom to help students reach particular learning objectives. Students are required to put themselves in the decision makers’ shoes. In the real world, the answers to complex problems cannot be Googled or found in textbooks, nor will everyone agree on the “ideal answers” to difficult questions. Managers rarely have access to all the relevant data pertinent to decisions. Similarly, cases usually do not contain all the information instructors and students would like to have. Therefore, they push students to make decisions with available information (exactly like the business world). The case method prepares business students for the real world that stipulates critical thinking and persuasive arguing skills. The purpose of using teaching cases to aid business students attain analytical and critical thinking skills these specialized policy analysis skills Many instructors have little use for case teaching and keenly resist its inclusion in their courses. There is a number of reasons for this resistance. One is the importance of being in control via lecturing. Some instructors regard the case method to be “soft,” lacking in rigor. Other instructors feel they have too much material to cover and do not have time to use cases. Or they may feel they do not have the “right personality” to teach with cases. This paper is about the author’s personal experience with teaching with business cases. The pros and cons of the case method will be discussed. The advantages and limitations will be presented. Tips on effective case teaching will be offered.

**Key Words:** case study, effective teaching, effective learning, teaching notes

# How to Develop the Fourth Year University Students' Leadership With Critical Pedagogy: The Action Study Research in China

Kuang Wei

Department of Education  
University of Nanchang, CHINA  
kuangwei@ncu.edu.cn

## Abstract

Under the background for development for the students, this paper explores how to develop the fourth year students' leadership in university in perspective of teacher in China. It narrates a teacher how to arrange a course named "research methods about education", how to use the action study research in this course, and how to ignite students' leadership by this course. By presenting teacher's practices about action study research, this paper will inspire the readers' reflection of critical pedagogy and other common definitions, such as study, research and knowledge.

**Keywords:** the fourth year students' leadership; action study research; critical pedagogy; development education

## Introduction

Critical thinking, critical speaking or critical writing is common in western countries, but there is never coined in Chinese. Since critical thinking was invented in early 1980s, China was in the beginning of Reform and Open.

The first beneficiaries of critical thinking were students in municipalities<sup>2</sup> and Reform and Open areas<sup>3</sup>. There was a tide to study abroad in these areas and the returners worked these areas as priority because of governmental employment opportunities with good condition.

These people who studies abroad and returned to China seeded the critical education to China in the 21st century. However, most of them worked in higher education not other levels education, so the internationalization of education started in Ivory Towers.

In 2002, Law of the People's Republic of China on the Promotion of Privately-run Schools was released, private education embraced internalization quickly with less governmental restraint to syllabus and textbooks, even to curriculums arrangements. Owing to privatization of education, critical education is more common than before in China.

However, critical education is never a public common sense in contemporary China. In some conservative educational organizations or educational atmosphere, students must

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<sup>2</sup> Beijing, Tianjing, Shanghai, later Chongqing was added in 1997.

<sup>3</sup> Most of them are coastal cities.

follow the teachers or what they said without any suspects is also the biggest barrier to critical education.

I am a university teacher in China. The research in this paper happened in a mid-size city with less internalization in China. Without political priority and privatization force, how could critical education happen in this area? So every teacher, just like me, is the mainstay to explore own critical pedagogy to implement critical education.

This paper claims that it is necessary to retrospect the ancient Chinese philosophy about knowing and acting to realize the internal critical pedagogy and how to practice the internal critical pedagogy with action study research in China's regional areas.

### **Literature Review: Critical Pedagogy**

This paper suggests that the core of action study research is critical pedagogy. As we known, the modern founder of the critical pedagogy is Paulo Freire and then some people develop critical pedagogy such as Henry Giroux, Augusto Boal and so on. Here are some literatures about their critical pedagogy.

### **Paulo Freire's Pedagogy of the Oppressed**

Paulo Freire was the Brazilian educator who developed the illiterate poor in rural areas and known for his Pedagogy of the Oppressed that was the foundation of critical pedagogy. As for him, "a pedagogy which must be forged with, not for, the oppressed (whether individuals or peoples) in the incessant struggle to regain their humanity.

This pedagogy makes oppression and its causes objects of reflection by the oppressed, and from that reflection will come their necessary engagement in the struggle for their liberation. And in the struggle this pedagogy will be made and remade." (Paulo Freire, 2000, p48) So the pedagogy of the oppressed was made by oppressed themselves not taught by the oppressed.

In the *Pedagogy of the Oppressed*, Paulo Freire realized that "the teacher talks about reality as if it were motionless, static, compartmentalized, and predictable. Or else he expounds on a topic completely alien to the existential experience of the students. His task is to 'fill' the students with the contents of his narration—contents, which are detached from reality, disconnected from the totality that engendered them and could, give them significance. Words are emptied of their concreteness and become a hollow, alienated, and alienating verbosity. (Paulo Freire, 2000, p71)

Paulo Freire called this kind of education as banking-education and the opposite education was problem-solving education that emphasized the importance of questions and dialogs. He suggested:

*The methodology of that investigation must likewise be dialogical, affording the opportunity both to discover generative themes and to stimulate people's awareness in regard to these themes. Consistent with the liberating purpose of dialogical education, the object of the investigation is not persons (as if they were anatomical fragments), but*

*rather the thought-language with which men and women refer to reality, the levels at which they perceive that reality, and their view of the world, in which their generative themes are found. (Paulo Freire,2000,p96-97)*

The dialogic education is the main way of critical pedagogy. In the dialogue between Ira Shor and Paulo Freire, the latter said "Dialogue seals the relationship between the cognitive subjects, the subjects who know, and who try to know."(Ira Shor &Paulo Freire,1987, p13) . So the classroom is a political field to Freire and the dialogue will empower everyone in this field.

Paulo Freire's critical pedagogy used the neo-Marxist theory and dichotomy dialectics to argue that "Authentic education is not carried on by "A" for "B" or by "A" about "B," but rather by "A" with "B," mediated by the world—a world which impresses and challenges both parties, giving rise to views or opinions about it. (Paulo Freire,2000,p93)

There were lots of critics to Paulo Freire's critical pedagogy, such as too much dichotomies (Noddings, 2012), over-emphasis of conflicts between classes not individual perspective (Ira Shor &Paulo Freire,1987) and ignorance perspectives of gender, age, ethics, nation, religions. However, the *limit-situation* (Paulo Freire, 1970) is the limitation of his theories, meantime breeds the development of critical pedagogy.

### **Henry Giroux's On Critical Pedagogy**

Henry Giroux was American and Canadian scholar and cultural critic known for his critical pedagogy in USA. He published his book *On Critical Pedagogy* in 2011 claimed critical pedagogy was the key defeated neo-liberalism.

Respect complexity of the relationship between pedagogical theories and the specificity of the sites in which they might be developed. (Henry A. Giroux, 1992, p3-4) In his book *Border Crossing: Cultural Workers and the Politics of Education*, Henry Giroux mentioned:

*Where I grew up learning was a collective activity. But when I got to school and tried to share learning with other students that was called cheating. The curriculum sent the clear message to me that learning was a highly individualistic, almost secretive, endeavor. My working-class experience didn't count. Not only did it not count, it was disparaged. I was being reproduced according to a different logic. (Henry A. Giroux, 1992, p14)*

As a form of cultural production, pedagogy is implicated in the construction and organization of knowledge, desire, values, and social practices. At stake here is developing a notion of pedagogy capable of contesting dominant forms of symbolic production. (Henry A. Giroux, 1992, p3) Therefore, critical pedagogy is a social mechanism about knowledge and education.

In the Book Review of *On Critical Pedagogy* written by ANGELO LETIZIA said, Giroux calls for a multi-disciplinary approach to tackle the complex problems that neo-liberalism

breeds. This approach always begins with education and critical pedagogy (Henry Giroux, 2011, p67). This language of hope and the students' participation in the unfinished project democracy is what Giroux calls Critical Pedagogy. As Giroux asserts in the introduction, a democracy cannot survive without critical and engaged citizens, and he believes that education is the site for this critical training and critical pedagogy (Henry Giroux, 2011, p12).

In Henry Giroux's eyes, education is not only economic context but also the social and culture context. Once students become critical and self-reflexive, they can begin to understand this interconnected relationship between economics, politics and culture. They can use this understanding to further enhance the unfinished project of democracy and make it better suited to the changing conditions of society (Henry Giroux, 2011,p54).

It is no doubt critical pedagogy is important to cultivate students, and there is a question that who implements the critical pedagogy? Only teachers? Some ancient Chinese philosophers didn't think so.

### **Ancient Chinese philosophies about Critical Pedagogy**

In ancient Chinese philosophers, narrative dialogue is the most important way to invoke critical thinking. Take the *Confucian Analects* for an example, which is full of concrete, minute details about what Confucius did and what he said, he usually asked the fundamental and deceptively profound question. (Michael Puett & Christine Gross-Loh,2016,p25)

Taking *Confucian Analects* for example, there was a dialogical scenario between Confucius and his students Yan Yuan and Zi Lu:

*Yan Yuan and Zi Lu being by his side, the Confucius said to them, "Come, let each of you tell his wishes." Zi Lu said, "I should like, having chariots and horses, and light fur clothes, to share them with my friends, and though they should spoil them, I would not be displeased." Yan Yuan said, "I should like not to boast of my excellence, nor to make a display of my meritorious deeds." Zi Lu then said, "I should like, sir, to hear your wishes." The Confucius said, "They are, in regard to the aged, to give them rest; in regard to friends, to show them sincerity; in regard to the young, to treat them tenderly." (James Legge, 1893)*

Actually, Confucius treated students as equal and welcomed different even contrast answers, and evaluated their answers according to the standard of Ren (virtues such as wisdom, honesty). It was the initial democracy of education in Ancient China.

There is also basic dichotomy dialectics in Confucius education. There was one time, Confucius's disciples asked him whether he thought we are rewarded after we die for the good things we do for others. His response was simple "*you do not yet understand life—how could you understand death?*" (Michael Puett & Christine Gross-Loh, 2016, p52)

After Confucius, there was a Neo-Confucian philosopher named Wang Yangming who insisted the combination of mind and action. He believed that the self-reflection could wake the good parts of mind that would lead people's action to common benefits. Weiming Tu suggested, Yang-ming's understanding of self-cultivation can be summed up:

*Man's greatest task in life is to become a sage. How to become a sage, however, never begins with an external method but with an inner decision. For the inner decision to be a sustaining power for self-transformation, it must be supported by learning. Continuous learning necessarily leads to self-criticism, and deepened self-criticism itself is manifested in mutual exhortation among friends and disciples. And the community of the "like-minded" people is organized with the expressed purpose of realizing the selfhood of each of its members. (Weiming Tu, 1976.p146)*

Comparing with Paulo Freire and Henry Giroux, ancient Chinese philosophers pay much attention to inner critical pedagogy, such as talking and thinking critically with selfhood, and I will choose Yang-ming's knowing and acting (chih-hsing ho-i) in Weiming Tu's book *Neo-Confucian Thought in Action: Wang Yang-ming's Youth (1472-1509)* about as my research methodology.

## **Methodology**

### **Yang-ming's Knowing and Acting (chih-hsing ho-i)**

To ancient Chinese philosophers, how to be a sage is most important question to them and their practices for a sage natured their pedagogies. So did Wang Yang-ming. Wang Yang-ming was an ancient Chinese philosopher during Song dynasty he was famous as the most important Neo-Confucian thinker. His philosophy based on epistemology as below:

*The controlling power of the body is the mind. The mind originates the idea, and the nature of the idea is knowledge. Wherever the idea is, we have a thing. For instance, when the idea rests on serving one's parents, then serving one's parents is a thing; when it is on serving one's prince, then serving one's prince is a thing; when it is occupied with being benevolent to the people and kind to creatures, then benevolence to the people and kindness to creatures are things; when it is occupied with seeing, hearing, speaking, moving, then each of these becomes a thing. I say there are no principles but those of the mind, and nothing exists apart from the mind. (Henke, Frederick Goodrich, 1916, p59)*

Basically, there are three strands to explain Yang-ming's knowing and acting:

Strand 1: Everyone can be a sage through learning. This is the tradition of ancient Chinese education, even in contemporary China, the educated men and women are eager to be a sage. There is no need for students to imitate specific sage, and every specific sage should be a mirror for students to reflect the way of being sage, like Yang-ming suggested:

*At present students who are trying to learn to become sages are not able to learn to know that which the sage is able to know, and yet with unremitting energy they devote themselves to seeking that which the sage is unable to know, as though it were learning. Has the student not thereby lost the means by which he hopes to become a sage? All that I have said corresponds to the points regarding which you are in doubt, and to a small extent explains them; but it does not constitute an exhaustive discussion, and without this there is no clear understanding in the Empire. (Henke, Frederick Goodrich, 1916, p326)*

Strand 2: Knowing and acting is a unity and can't be separated, as Yang Ming argued that:

*People today distinguish between knowing (chih) and acting (hsing) and pursue them separately, believing that one must know before one can act. They will discuss and learn the business of knowledge first, they say, and wait till they truly know before they put their knowledge into practice. Consequently, to the last day of life, they will never act and also never know. (Weiming Tu, 1976.p150)*

Strand 3: Learning is the internal self-cultivation. As for Yang-ming, learning is not the responsibility for others, but the duty of students who want to be a sage:

*Study, inquiry, thinking, sifting, and practice are all ways of learning. No one really learns anything without carrying it into actions. Take the learning of Xiao (filial piety). One must relieve his parents of the burden of toil, serve and care for them, and personally put the principle of Xiao (filial piety) into action before one can be said to be learning filial piety. (Weiming Tu, 1976.p151)*

With Yang-min's knowing and acting as methodology, I started my action research and lasted it for three years.

## **Method**

### **Action Study Research (action research with knowing and acting)**

This research is one action research with my knowing and acting, therefore, it isn't the action research separating teachers' study and students' study and it's the action research improving teachers' study and students' study. My research group<sup>4</sup> and me call this method action study research.

### **Identifying research problem**

After ten years I graduated from the university and became a teacher in the university, the situation staged like ten years before: students didn't suspect of their textbook and asked teachers to help them to pass exams. So there was a question raise: have China's higher education went ahead or backward during these ten years?

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<sup>4</sup> In 2010, I met some companions in other universities around China to form an action study research group to discuss how to develop students' leadership.

From 1999 to 2013, China witnessed the expansion of higher education and the gross enrollment rate of higher education reached from 10.5% to 34.5%.<sup>5</sup> Heat debate about quantity and quality of higher education in China confused the society, until the appearance of University Ranking.

The first of university ranking in China is Wu Shulian's China University Ranking and Evaluations in 1993. This ranking was criticized by some scholars because Wu Shulian's professional identification in private sector. In 2002, China Academic Degrees and Graduate Education Development Center (CDGDC) started Ranking of Disciplines in 2002 and ended in 2009. And then, Shanghai Jiao Tong University's Academic Ranking of World Universities (ARWU) was published in 2003,

My universities melt with the competitive ranking battle, and I didn't feel we were in the process of development<sup>6</sup>. Even worse, I found a rule for most undergraduates in department of education: in the first and second year, they studied knowledge diligently and in the third year they became to lost their way. Finally, they showed depressed and confused in the fourth year.

My course was arranged for fourth year students, so how to develop their leadership became the first challenge of my career life.

### **Sampling**

The sample of this research is convenience sampling and snowball sampling. There are three rounds of sampling with 107 students totally:

The first round sample: 40 fourth year university students in the department of education in 2013;

The second round sample: 40 fourth year university students in the department of education in 2014;

The third round sample: 27 fourth year university students in the department of education in 2015.

In 2013 and 2014, I made a comparison research between the fourth year undergraduates and the first year graduates to test whether the fourth year students was more anxious about future, and the result was yes. In 2015, I used action study research in other courses and tried to find what was the best year to implement action study research.

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5 Gross Enrolment Rate of Education by Level <http://old.moe.gov.cn/>

6 I still remembered one scenario: After privatization of universities' buses, students can pay to take buses with a little higher fee. One day, some colleagues and me boarded one bus and found there was no vacancy. One colleague blamed those students who sat didn't give seat to respect teachers. Finally, no student gave seat to us.

### **Collecting and organizing data**

For students, I collected their homework, reflective diaries, questionnaires, and voice records as data in 2013. In 2014, I added video record as data. In 2015, I added self-assessment. For me, I collected my power points, reflective diaries and photos from 2013-2015. These data are kept in my laptop and a portable hard disk in terms of different semester.

I organized these data according to my specific demands. Because as a teacher in governmental university, there were lots of tasks irrelevant to research and teaching, and I felt it was difficult to focus on action study research. Therefore, the way I chose was to record everything happened in my course and then explaining them later.

### **Explaining data**

Reflective writing is the basic way for me to explain data. I opened a blog to share my reflective writing in 2014 and then transferred it to a group of students<sup>7</sup>. This blog was forced to close because nobody updated it according to regulations of website. Then, I launched another blog to share my reflective findings and still continue.

According to my writing interests, I decided to start reflective writing in 2014 and share them in students' social media irregularly. I made a rule for my blog that never opened anyone's message to make sure a mutual trust relationship between students and me.

### **Action based on data**

According to data and reflective diaries, I made five actions as followed:

### **Structuring the knowledge according to modules**

I explored to structure the course for a long time. Firstly, I structured the course with 50-50 percentages, but failed with opposition from students who thought job was more important than curriculum study.

I couldn't ignore that students were anxious their future because of non-stopping expansion of higher education and competitive labor market. I chose another way to structure my course according to knowledge about research methods.

I made seven modules of research methods and established connection among modules in order to lead students to learn step by step. These seven modules are: research methodology, raising question, literature review, design of research, development of research tool, research implementation, presentation of research finding.

In the process of structuring, I read some books about the philosophy about education, definitions of educational research methods, quality research methods, quantity research methods and action research methods. Reading became the main way of my action study research.

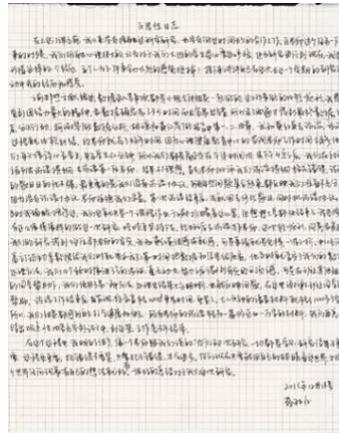
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<sup>7</sup> I launched reading event in social media in 2015. This group of students joined this event autonomously, and I considered they as students with leadership.

## Reflective writing

Reflective writing is writing diaries about people question their consciousness. In my course, I encouraged students and myself to reflect the knowledge about educational research methods, and explored the answers by basic research methods, such as literature search, simple observation and short-time interview.

Meantime, I also wrote reflective diaries about my knowledge and instruction. I shared dairies about knowledge with students and discuss instruction with my colleagues. Diaries helped me to prove my teaching with continuous reflection.



A student's reflective diary



Our old blog “action-education”

## Out-of-classroom study

I insisted that research should be carried on in direct touch with real context. It was fortunate that I found some headmasters in primary schools supported my native pedagogy and they suggested that it was reasonable to establish a bridge between university and schools.



Students thought about their research questions after observation in a primary school in 2015

## Oral presentation as final exam

Final exam is the oral presentation that students show their whole research process, results and findings. I invited other teachers in my department as examiners to test my students, and I tried to collect their feedback about this presentation and failed.

I still tried to invite stakeholders to be examiners in final exam in universities, such as future-employers, governmental officers, education and training providers, and students' parents, in order to improve the quality of higher education and failed.



Oral presentation by group in 2013

### **Mutual-subjective dialogue**

Actually, in 2015 I tried to implement action study research other course. I remembered that a student went to a primary school with lots of stay-at-home children to do her survey. After research, she found one stay-at-home child wasn't pessimistic as people thought so she claimed that less focuses on the negative evaluations of stay-at-home children in order to prevent the second psychological injury to them.

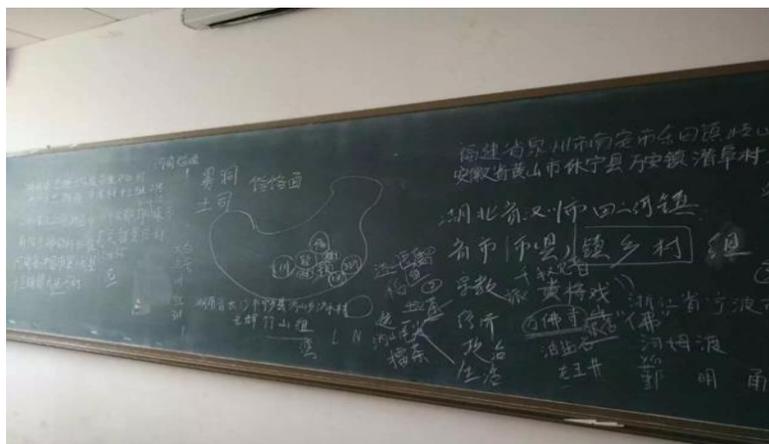


Independent research about stay-at-home children in 2015

There was a big surprise shown that some students started to reflect the knowledge of research methods in reflective diaries without teachers' guidance. One student wrote in the reflective diary that:

*I was thinking about how to interview a student in classroom. I found lots of classmate watched this student, and I went out with her/him in the corner of school to finish my interview. But it was never mentioned in the textbook.*

Through action study research, I argue that both students and teachers are beneficiaries of leadership. Action study research restores students' curiosity and connects their experiences with knowledge from teachers and textbooks to build their self-leadership of study and research. Action study research strengthens teachers' confidence to change negative sides in traditional education and encourages them to explore creative ways of right education.



In a mid-size city in China, lost of university students were brought up as stay-at-home children, and I created a hand-drawing map to oral narrate stories about homeland with students in 2015.

## Findings

### Internal Critical Pedagogy

Under discussion with our action stud research group, we found that our students were lack of leadership and wanted to follow teachers without thoughtful considerations. Actually, when we reflected ourselves so did we. Then, I noticed that perspective choices would influence behaviors, so I decided to change my perspectives in order to transfer my action at first.

### Changing Perspective

Changing perspective is the first step of Internal Critical Pedagogy. There were three kinds of perspective changes:

The first was from the observer to the participant. It was the key to implement action study research. If you considered you were observer, you would found a lots of mistakes from others and persuaded yourself don't make the same mistakes, however, you still learn from negative mimicking others not reflecting yourself. When I chose to be a participant of action study research, it meant I was the same to students to study and research through action, not bystanders asked students to do in terms of my requirements.

The second was from the leader to the companion. It is easy for students imitating teachers as leaders, but not easy for student trusting teachers as companions in the context of conservative education. I felt it was difficult for me that I wanted to show *my* right views anxiously in the classroom especially in the situation I thought the questions was so easy for me. I practiced myself to trust students and wait for students' voices, and assured that "*no patience, no gain*" was true in education.

The third change without my expectation was from the imitator to the creator. In Chinese culture, it is very common to imitate the elder to adapt the atmosphere that will lead to a recycle of style, so the imitation usually is the safest way to get along with each other. It is good in stable situation but not in capricious world. When I started to reflect the educational culture, I learnt to choose some elements I needed and change some elements I thought weren't suitable for outside world, and then I found there would be lots of ways to teach students, such as self-portrait, mapping, oral history, presentation and reflective writing.

### **Recording Facts**

Record is a way to keep facts without judgment. I have main three ways to record:

Reflective diary: I kept writing reflective diary about my teaching regularly and finding it was an effective way for me to think about how to act. I remembered when I felt the conflict atmosphere in my classroom, I wrote a reflective diary about study and job, than I can understand more about my fourth year students. Some time I would share my reflective diaries (removing some value judgments), magically, a few students would give me their reflective diaries. So reflective dairy is a deeper way to communicate with each other.

Photo voices: I learnt photo voices in 2015 then made use of it in my course. I took photos in my classroom then uploaded them in my social media and personal blog. I found these photos could empower people to think about teaching and education, even someone I didn't recognize before contacted with me to discuss family education and school education. Actually, every time I took the final photo when we finished course and I could feel empower by my students even we experienced a conflicted atmosphere.

Drawing: In 2016, I used hand drawing in my course then I noticed a way of self-development called self-portrait in the academic paper:

*We supplied students with space and materials (such as papers, paints, glue, boards, cutting tools, magazines/photos, and sculpting material) to create their self-portraits, and they were told that they could use whatever approach and combination of two- or three-dimensional materials that would serve as the best vehicle for presenting their thoughts. (Michele M. Welkener, Marcia B. Baxter Magolda, 2014,p582)*

However, most of my students study in school relying on more words materials than visual and audio materials, they could picture their thinking by hand with teachers' encouragement.

### **Inner Decision**

Making decisions mean making and practicing promises. Therefore, who can keep promises to practice would be an honest man in lots of Chinese stories.

The process of inner decision likes a way to reflect according to the individual moral level. For example, a student complained that university education was not helpful to find a job in the classroom and my inner decision was calming down and accepted his negative emotion. Why did I make such decision? Because I knew he was the fourth year student and he felt depressed about finding job. Then, I was patient to wait him to join classroom and gave him some information about jobs in private. Interesting, this student persuaded me not to work so hard and relax life and I realized that students had their stereotype about teachers (maybe female teachers). I told him my inner voice of being a teacher instead of criticizing him for not respecting teachers. Gradually, this student found a job and finished my course successfully.

Inner decision is a way of liquid thinking not solid, and the key of this way is keeping honest to oneself and the others. In Neo-Confucian philosopher Wang Yang Ming's perspective:

*As a complete commitment and a continuous assurance, a man's inner decision entails a direction of life. However, to make an inner decision is only the first step. Unless one is constantly involved in learning, one's determination cannot be translated into an active principle of internal self-transformation. (Weiming Tu, 1976, p145)*

### **Acting with Reflecting**

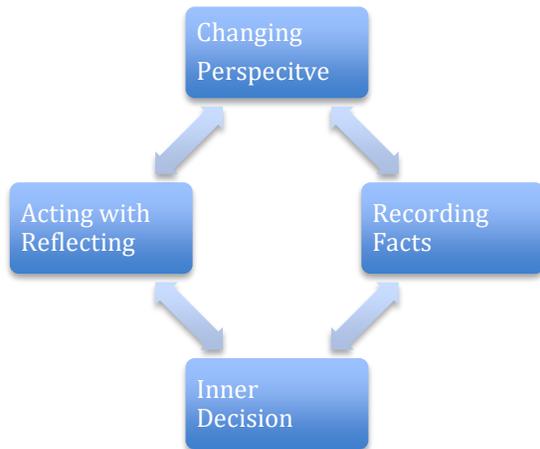
Acting and reflecting can happen anytime without sequence. Some people want to get full preparation before they make an action but no one knows what full preparation looks like, so they want to read more books, implement more experiments, meet more people and grasp more experiences. However, those are still passive study relying on others without reflection, because these kinds of people are possible to lose the best opportunity to try and stay in their conscious world.

Reflection is the conscious process connecting acting with reflecting. I believe the word is inconspicuous. Every phenomenon has various even contradict interpretations and the content of interpretations will affect people how to reflect and act. In 1966, Peter L. Berger and Thomas Luckmann claimed that:

*The phenomenological analysis of everyday life, or rather of the subjective experience of everyday life, refrains from any causal or genetic hypotheses, as well as from assertions about the ontological status of the phenomena analyzed. It is important to remember this. Common sense contains innumerable pre- and quasi-scientific*

*interpretations about everyday reality, which it takes for granted. (Peter L. Berger and Thomas Luckmann, 1966, p34)*

The question is how can these interpretations lead to good reflection and good action? Opening our reflection is one choice. There are various ways to open reflections to inspire true dialogues, such as sharing reflective diaries, discussing photo voices and exchange drawing pictures. True dialogues will empower each other inside the classroom and make action outside the classroom.



Methodology of Internal Critical Pedagogy

### **Conclusions**

This paper illustrates a whole action study research in a middle size inland city in China in the perspective of teacher and makes three conclusions as followed:

Action study research not only can develop fourth year students in university, but also other students, even teachers;

Teachers can develop their own critical pedagogy through action study research with their local cultures;

As for my critical pedagogy, Yang Ming's acting with reflecting is the most important methodology.

To sum up, action study research is still in the process and needs more time to test, and we believe that teachers can develop students' rights to learn by action study research in this uncertain and competitive world.

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Thanks to headmasters of primary schools mentioned in this research, Huang Guoyuan in Liantang No.3 primary school and Xiao Qiu in Chaoyang primary school. With their supports, my students can observe at the back of classroom, interview with teacher and students and issue questionnaires.

Thanks to my visiting tutor Douglas Bourn to supervise my first English paper and introduce critical pedagogies of Paulo Freire and Henry Giroux to me. He really opens a worldwide window for me.

# Student Perspectives on Learning Engineering in an Introductory Engineering Course

Yang Yang

Department of Special Education, Counselling, and Student Affairs  
Kansas State University, USA  
yyang001@ksu.edu

## Abstract

Retaining engineering students and helping them succeed academically is a critical issue in engineering education (NAE, 2005). How students view the nature of knowledge and knowing in engineering places a key role in their academic success. This study examined students' perspectives of learning in engineering, known as epistemological beliefs, in an introductory engineering course using a unique approach, Q methodology.

Many previous studies have found that students' epistemological views influence their motivations, learning strategies, and learning outcomes across various content areas (Hofer, 2004; Ramlo, 2008; Schommer, 1990, 1993). For example, Prosser et al (2009) found that ability to learn science concepts can be affected by epistemological beliefs. Lising and Elby (2005) demonstrated that student epistemological stance has a direct influence on physics learning in a reformed introductory college physics course. Schommer (1990) also found that certain personal epistemological beliefs directly predict students' comprehension in various content domains. Clearly, understanding student epistemological views has important implications for student learning and instruction.

This study took place at a large Midwestern land grant university. With the approval of the University Institutional Review Board and the course instructor, all participants were recruited from an introductory course in College of Engineering on the first day of class in the fall semester. A total of 19 students (four females) responded and participated in the study, including 14 Caucasian, 3 Asian, 1 Hispanic and 1 biracial. One student had missing data. The results reported below are based on the responses from the remaining 18 participants. Noteworthy, in Q studies, a small sample size is psychometrically acceptable (McKeown & Thomas, 1988). Unlike most other methodological approaches, Q methodology correlates participants to explore the patterns among them. In other words, participants are considered the variables in Q. Therefore, a large sample is not necessary (Brown, 1993).

The researcher first informed participants about their rights. Participants were then asked to perform a Q-sorting process on a set of 36 statements regarding engineering learning (Yang, 2016). The Q-sorting statements were adapted from Wheeler's Epistemological Beliefs Survey for Mathematics (EBSM; Wheeler, 2007). EBSM was used to measure student epistemological beliefs about math. The 39-item measure contains six underlying factors: Innate ability to learn, structure of knowledge, certainty

of knowledge, speed of knowledge acquisition, source of knowledge, and real world applicability. The instrument has established good estimates of validity and reliability (Wheeler, 2007). For the purpose of this study, some items were reworded to reflect beliefs specific to engineering instead of math.

In the Q-sorting process, participants judged each statement in relation to other statements, drawing on their own experiences in learning and understanding engineering in the introductory engineering course. Participants initially sorted all statements into three piles: most like my view of learning, neutral, and most unlike my view of learning in the engineering course. Participants then distributed the statements, each on a separate strip of paper, on the forced distribution grid. Once participants were satisfied with their statement distribution, they recorded the statement numbers in the grid. After the Q-sorting, participants also completed a brief questionnaire about demographic information. The entire session took about 20-30 minutes. To show appreciation for his/her time, each participant was given a monetary incentive of \$15.

PQMethod program was used for factor analysis of participants' Q-sort data and calculation of factor scores (Schmolck, 2014). Preliminary analyses showed that two factors emerged from the data. Each factor is a people factor representing a group of participants who sorted the statements in a similar way (Brown, 1993). The participants who loaded highly on a particular factor shared similar epistemological beliefs on engineering. To understand the characteristics of each epistemological view, the distinguishing statements on each factor were further examined. The distinguishing statements are statements with the largest differences in factor scores and thus differentiate one factor (i.e., epistemological view) the most from the other factor.

Based on the distinguishing statements, the first factor (36% variance explained) suggested that 13 students represented by this view showed a coherent view of engineering as seeing engineering concepts to be interconnected. They sought to actively construct the meaning by finding multiple ways to solve an engineering problem rather than having one correct answer. These students valued the empirical justification of knowledge more than the mere facts.

The five students representing the second factor (24% variance explained) preferred learning from the experts or authoritative figures and believed in the value of practice (30). They expressed frustration when they did not know how to solve an engineering problem immediately. These students also found it confusing when they were showed multiple ways to answer or solve an engineering problem. In addition, several consensus statements also emerged and suggested that both types of students were reflective of their own learning, and were persistent when facing difficulties. Both types of students held strong engineering identities and saw the broad applicability of engineering knowledge.

In summary, this paper examined college freshmen' views on the nature of the knowledge and knowing in engineering in an introductory engineering course. A unique approach, Q methodology was used to compare and identify individuals' different point

of views regarding engineering epistemology reflected by forced Q-sorting procedure. Equipped with Q, this study revealed two distinct perspectives on engineering epistemology. The distinctions between two views are supported by the literature on epistemology, including sources of knowledge, certainty of knowledge, and justification of knowledge (Hofer, 2004). Examining students' perspectives could enable educators to better understand students' perceptions toward engineering and help improving students' learning of engineering concepts.

**Keywords:** Q methodology, epistemological beliefs, engineering education

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# Understanding the Psychological, Organizational, and Academic Needs of Collegiate Student Athletes and Implementing Best Practices

Kelly Jackson<sup>1</sup>, Laretta Freeman-Horn<sup>2</sup> and Kasey Saucer<sup>3</sup>

College of Adult Education  
Auburn University, USA  
<sup>1</sup>klj0014@auburn.edu  
<sup>2</sup>lrf0006@auburn.edu  
<sup>3</sup>krs0019@auburn.edu

## Abstract

Collegiate student athletes are a unique adult learning group. The focus of our presentation is knowledge and training for academic athletic support staffs in North America who provide student athletes with strategies for success. This presentation is crafted to benefit counselors, learning specialists, mentors, and tutors of academic support staffs for athletes. To optimally train these staffs, it is imperative to understand the needs and demands of student athletes psychologically and organizationally to better aide athletes in academics. When training personnel to work with student-athletes at Auburn University, a foundational concept is fully educating the support team in understanding that research and experience show that student athletes are confronted with challenges that non athletes do not face (Ting 2009)The best practice is to train support staff to know what types of stresses student-athletes are managing both in the classroom and in the sports arena.

Understanding the psychological aspects of student athletes in areas of social norms, peer influences, self-image, and the challenges of the duality of being both a student and an athlete, are imperative for academic support systems to embrace to best serve students' needs. If mentors and tutors dismiss the impact a student-athletes' identity and self-image have in relation to their sport, the student athlete shuts down and support sessions are pointless. According to Jolly 2009, 61.8% of student athletes view themselves as more an athlete than student and one half of student athletes surveyed nationally reported that they felt their professors discriminated against them because they were athletes. Understanding this duality is the job of support. The emotional/psychological need to find identity plays a major part in the adjustment and development of student-athletes, especially those heavily recruited. Frequent recruits not only have the pressure to succeed on the playing fields, but search for and/or redefine their identity and self-worth in a new competitive social environment.

Analyzing and implementing organizational tools and time management strategies are crucial elements for training staff in academic support services in the best and most current practices to fully aide student athletes to success. Time management and organizational skills are a vital tool to student athletes when having to balance life during college. They are responsible for attending practices, competitions, meetings, classes, having a social life, and tutoring/mentor sessions while maintaining a passing grade point average to stay eligible. Effective time management strategies increase

academic performance (Campbell & Svenson, 1992) and are frequently suggested by academic assistance personnel as aids to enhance achievement for college students. Productive study methods are characterized by "time management" and "strategic studying" [Entwistle & Ramsden, 1983; Kirschenbaum & Perri, 1982). Stephen R. Covey's "The 7 Habits of Highly Effective People" (1989) is a great resource support staffs to use as a training manual for their mentors and tutors. Mentors and tutors guide student athlete to learn the importance of time management and keeping their hectic lives as organized as possible. Covey's book also models ideas to help student athletes learn powerful lessons in personal change to better themselves during their college career and continue healthy changes into their professional careers. The goal of the support staff of student athletic services is to guide student athletes to discover independence throughout their college life so that upon graduation, these student athletes will be ready to tackle the professional world. In Suzanne Cosh and Phillip J. Tully's 2015 study, "Interviewees reported encountering numerous stressors, especially relating to schedule clashes, fatigue, financial pressure, and inflexibility of coaches. Athletes identified few coping strategies but reported that support from parents and coaches was paramount. Athletes would benefit from upskilling in several areas such as effective use of time, self-care, time management, enhanced self-efficacy, and specific strategies for coping with stress."

Training mentors, tutors, and counselors for academic sessions begins with rapport. It is the role of support staff to earn trust and advocate for student athletes. Staff should provide student athletes with helpful strategies to cope with stressors they face in their day-to-day lives. Successful support sessions foster learning of soft skills to cope with the pressures of being both an athlete and student. It is essential for mentors /tutors to model time management strategies for better academic performance such as making a list starting with the most important task first and crossing tasks off the list as they are completed. Staff should also emphasize schedule making and keeping a calendar planner to write out class times, assignments due, practices, competitions, and study hall hours. This way the student athlete can visually see if/when they will have time.

Academic support staff are not certified instructors of content, but specialists in strategies. The role of support is to provide strategies for success in the collegiate classroom and be a positive, consistent force in the athlete's life. A trustworthy rapport with student athletes is the cornerstone of a strong and effective athletics support staff. When working with students in tutoring and mentoring sessions, the mentor and tutor should actively listening, be consistent, be punctual, model discipline, and possess the ability to think through the student athlete's lens. Support staff should possess a positive attitude, honesty, and transparency. Support staff should not make assumptions about the abilities of the student-athlete. Support staff respects the challenges that the student-athletes face outside of the game or sport in which they participate. Mentors and tutors are encouraged to allow the student-athlete to determine what needs are relevant, work to solve their problems and strive for self-actualization. Study sessions should be active and direct, ensuring the student-athlete has the ability and resources to experience success in the classroom. Support staff's emphasis is on reduction of academic challenges and restoration/creation of appropriate study skills. Support

sessions should be formatted and executed in a way in which codependent behaviors are not facilitated. It should avoid dependency but rather foster a collaboration of efforts where the student-athlete and staff members create an environment and setting both believe will be effective. Emphasis should be on the student-athletes' strengths and that they have everything they need (all of the resources) to be successful.

**Keywords:** higher education, student athletes, support staff training

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# Kudzu on Campus: The Monoculture of MOOCs

Ralph Turner

College of Education  
Eastern Kentucky University, USA  
*Ralph.turner@eku.edu*

## Abstract

They were described as an “avalanche” (Vernon, 2013, para 1) and a “tsunami” (McKenna, 2012, para 1), a “revolution that has higher education gasping” (Pappano, 2012, para 3). Indeed, in 2012, the year christened by the *New York Times* as “the year of the MOOC,” Massive Open Online Courses looked poised to become the next tech “disrupter,” ready to sweep into higher education and topple the existing business model. However, MOOCs’ rather astonishing dropout rate—course completion rates stand at approximately 12%—has tempered the earlier fulsome praise and predictions of massive domination (Ubell, 2017). Yet if the tsunami has yet to crash over higher ed as augured, neither can MOOCs be classified as a washout. The number of MOOCs has grown from 10 in 2011 to more than 4,000, with between 16 to 18 million students connected to MOOCs (Blackmon, 2016). MOOCs aren’t going away.

In fact, in looking over the MOOCs’ brief history, including the political climate that nurtures them and their relative market advantages, a comparison more accurate than tsunami or avalanche might be kudzu, the perennial vine that since its introduction in the early twentieth century has crept over the landscape of the Deep South, crowding out and killing other vegetation through its shade. Kudzu illustrates perfectly the “law of unintended consequences,” as it was deliberately cultivated in Southern soil in the 1930s and 1940s as a solution to devastating erosion. In the scorched earth environment of today’s higher education, with relentlessly eroding government support combined with an inexorably ascendant neoliberal view of the student as consumer, MOOCs have put down hardy roots; their growth is steady if less heralded. Moreover, the mindset behind them is flourishing on campuses across the nation, as university administrators look to online learning in general as a miraculous solution to fill gaping budget issues, even as the same promises of expanded student opportunity continue to be problematic, and issues of fairness unresolved.

The first MOOC was a connective MOOC, now known as a cMOOC, that relied on distributed knowledge as opposed to top-down hierarchical model of the xMOOC such as those created by the for-profit Coursera and the non-profit edX. The xMOOC has drawn the lion’s share of attention, praise and emulation, which may stem at least in part from the inherent difficulty in monetizing the cMOOC, a significant disadvantage at a time when states have slashed higher education funding percentages to historic lows, fueling a dramatic rise in tuition costs. With the previous government/student funding paradigm flipped, today’s student is forced to assume the burden of costs. Thus, where once students were defined as learners, they are now dually defined learners/consumers—which fits neatly into the neoliberal project, which uses the market lens to recast human and civic identity, and in the process redefines freedom, choice,

autonomy, and rationality in market terms. This neoliberal frame is a model that has been embraced and advocated by successive Secretaries of Education; speeches by Margaret Spelling compared college education to the purchase of a car, while Arnie Duncan enthusiastically promoted the educational entrepreneurship. As deregulated, privatized products that skew power toward capital as opposed to labor or the state, and that cast the individual as a consummate and all-powerful consumer ready to respond “rationally and efficiently respond to correct market signals,” MOOCs are a large-size-fits-all solution, which administrators like University of Virginia President Teresa Sullivan have ignored at their peril.

Despite their failure to deliver the promised revolutionary results, MOOCs are well positioned to maintain viability in both the immediate and long term, and not only because of a design that conforms to predominate political and economic expectations. Firstly, MOOCs benefit greatly from important brand advantages; although some have suggested that brand recognition in higher education presents challenges different from those of the corporate sector, the increasing reliance on tuition funding and the merging of learner and consumer identities make those challenges more similar than divergent. As products of high-status universities, MOOCs may reap the advantages of “blocking” by consumers, who ignore underlying traits to rely on brand cues alone. MOOCs also arrived on the market supported by superb brand equity, reinforced by both perception and data: time and again, salary surveys show that graduates with degrees from higher-status universities earn more. These brand advantages would seem to be more than theoretical; in a recent study looking at four factors in MOOC users’ variance in intention to continue, perceived reputation was found to be the strongest predictor for the intention to continue using MOOCs.

MOOCs also enjoy significant funding and operational strategies. Like Amazon, which used seemingly unending investor funds to forgo profit margins in order to lower prices for long enough to drive out online competitors, MOOCs operate from “deep pocketed” funding. Like Wal-Mart, which leveraged its scale in squeezing suppliers in its supply chain to reduce costs, MOOCs employ a rigidly vertical hierarchy: The “superstar” professors at the top, cadres of far-lower paid “facilitators” below them and masses of students at the bottom. As a pedagogical model, the MOOC has been called “traditional,” reflective an old-fashioned notion of F2F classes, and less charitably as “shovelware to get content to the masses” (Armellini & Rodriguez, 2016, p.23). However, whatever its shortcoming as a pedagogical model, in business terms, this hierarchy, combined with economies of scale, is a proven profit-generator as prominent corporate examples have revealed. Also, MOOC creators have adjusted their market strategy, charging small fees for certification and other services, and moving from the trumpeted aim of market domination to a more modest goal of market penetration through the positioning of MOOCs as a tool for blended learning.

Still, if MOOCs themselves haven’t achieved the world domination their creators seemed to hope for, the mindset behind them has been embraced on campuses across the nation, as administrators have recognized and seized on the business opportunity that online learning offers. In the 2015 Babson survey, more than 70% of surveyed

administrators identified online course offerings as a key strategic component. The online platform's elimination of geographic constraints and enticing prospect of infinite scalability has universities scrambling to leverage the new opportunity through aggressive marketing campaigns that marketers have likened to an arms race, totaling \$10 billion in 2016.

More troubling, out of those university leaders who saw online learning as critical, approximately 74% contended that the online learning experience was equivalent if not superior to face-to-face, yet even among those proponents, only 28% could vouch for their own faculties' recognition of online quality. Also belying assertions of online superiority are lower persistence rates for online learners and reports of dissatisfaction among students who find the experience isolating and faculty who find the workload more onerous.

It is important to remember that the promise of the MOOC was in the dramatic increase in higher ed. access for less advantaged students. Yet the profile of the successful MOOC user—Caucasian with greater than average educational experience, who is more likely to look to the MOOC for career rather than educational advancement—shows that that disadvantaged students are not the prime beneficiaries of this new tool. Indeed, the promise of all online learning seems to be predicated on the idea that “access” is defined in technological or temporal terms. In fact, successful online learning requires specific digital literacy skills that must be developed and supported by the offering institution. Yet the relentless demands of the market and high costs of education mean that online learning will be regarded as a source of revenue rather than a locus for investment and improvement, and there is a real danger of a second digital divide growing between the haves and the have-nots.

So while the tsunami hasn't crashed, like kudzu, MOOCs show every sign of resilience, spreading a new mindset that may mean even if the campuses don't close, the promise (and the real need) for higher profits may change the nature of the college experience, slowly but inexorably.

**Keywords:** MOOCs, kudzu, monoculture, neoliberalism, higher ed. policies

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## Can High Impact Practices Influence Affect and Behavior?

Esther Arnold<sup>1</sup>, Katherine Collins<sup>2</sup>, Kemba Griffith<sup>3</sup>, Austin Mason<sup>4</sup>, Jessica McCumber<sup>5</sup>, Ashley Mitchell<sup>6</sup>, Amanda Roth<sup>7</sup>, Mallory Wood<sup>8</sup>, Kelly Moore<sup>9</sup> and Candice Stefanou<sup>10</sup>

College of Agriculture and Life Sciences  
Department of Family, Youth and Community Sciences  
University of Florida, USA

<sup>1</sup> estherarnold67@ufl.edu

<sup>2</sup> kcollins94@ufl.edu

<sup>3</sup> kembaaaa511@ufl.edu

<sup>4</sup> austinkellymason@ufl.edu

<sup>5</sup> jessicarmcc1mber@ufl.edu

<sup>6</sup> ashleypmitchell@ufl.edu

<sup>7</sup> aroth710@ufl.edu

<sup>8</sup> mswood@ufl.edu

<sup>9</sup> kmon913@ufl.edu

<sup>10</sup> cstefanou@ufl.edu

### Abstract

The focus of the Association of American Colleges and Universities (AAC&U) report on College Learning for the New Global Century (2007) was on providing meaningful twenty-first century educational experiences that would lead to positive outcomes associated with learning and development. Meaningful educational experiences included high-impact practices, such as first-year seminars, learning communities, service learning, undergraduate research, study abroad and capstone courses and projects. Brownell and Swaner (2010) reviewed the literature on the known outcomes of high-impact practices and found that, while outcomes may vary depending on the type of high-impact practice students engaged in, there are generally across the board positive effects on persistence, degree completion, and academic achievement. The high-impact practices are thought to be especially important for students from underserved populations.

However, the ultimate goal of college education might be in its ability to impact all students in ways that are less easily quantified by grades in courses or completion rates. This research intends to understand the effect high-impact practices have on helping to create a skilled, knowledgeable, and compassionate citizenry. Lee Shulman (2002) wrote about the interplay of engagement to learning, knowledge, understanding and action. Kuh (2009) suggested that student engagement might be the “organizing construct” (p. 5) for assessing student outcomes and improving the academy. While some research on the high-impact practices found positive associations with a variety of outcomes, it is not clear whether there is a cumulative effect or if the effects are truly practice-specific.

The purpose of this research is to determine the lasting effects of participation in high-impact practices on students’ self-esteem and their self-efficacy, motivation and intent to have a positive impact on their world post-graduation. This research is a logical step in contributing to this body of research because it examines this topic from a different

angle. Academic achievement, persistence, or graduation are not the foci. Instead, this research examines the attitudes, beliefs and intended behaviors of students who have participated in a range of high-impact practices.

This research examines the effect on student self-esteem, self-efficacy, motivation and intent to make a difference through some form of civic engagement. Specifically, how does participation in high-impact practices affect self-esteem and self-efficacy, motivation and intent to make a difference? Further, is there is a cumulative effect from participation on these outcomes?

A total of 238 students from a major state university participated in this research. Participants were selected to represent different disciplines, where a certain percentage of each college would be represented, through a multi-stage cluster, random, and probability sampling strategy. Students were asked to complete a questionnaire regarding their participation in high-impact practices, self-esteem, self-efficacy, motivation and intent to have a positive impact on their world post-graduation. There was a total of thirteen high-impact practices which included but were not limited to practices such as first year seminar, study abroad, undergraduate research, internship, learning communities, and service learning. Self-esteem was measured through Rosenberg's Self-Esteem Scale (1965). Self-efficacy, motivation, and behavioral intent were measured through 6-item researcher-developed questionnaires. Data was analyzed through SPSS Using multiple regression analyses. High impact practices were entered into the equation individually as predictor variables and separate regression analyses were run for the dependent variables of self-esteem, self-efficacy, motivation, and behavioral intent. Both forced entry and stepwise methods were used. Forced entry multiple regressions yielded no significant predictors of any of the dependent variables. Stepwise multiple regressions resulted in undergraduate research being the sole significant predictor of behavioral intent ( $R^2 = .059$ ); diversity courses and undergraduate research explained 6.4% of the variance in self-efficacy; volunteerism was the sole significant predictor of motivation ( $R^2 = .030$ ); and self-esteem was not predicted by any of the high-impact practices.

The results suggest that some high impact practices might have stronger effects on students' self-efficacy, motivation and intent to have a positive impact on their world post-graduation. As colleges and universities are redefining their curricula to help students prepare for the new global century and promote civic engagement, studying the less visible effects of the curricula as they pertain to the more affective outcomes and intentions beyond the academe could prove informative with regard to distribution of scarce resources.

**Keywords:** high-impact practices, self-esteem, motivation, self-efficacy, behavioral intent

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# Promoting Global Education Through Study Abroad for Secondary Teacher Candidates and Teacher Educators

Victoria Costa<sup>1</sup> and Debra Ambrosetti<sup>2</sup>

Department of Secondary Education  
California State University Fullerton, USA  
<sup>1</sup>vcosta@fullerton.edu  
<sup>2</sup>dambrosetti@fullerton.edu

## Abstract

California State University Fullerton offered its first Study Abroad Program for Secondary Teacher Candidates and Teacher Educations during summer 2016. The International Cohort Cultural Experience: Japan included pre-visit seminars and a two-week visit to Fukuoka, Japan that provided opportunities for teacher candidates and faculty to interact with Japanese secondary teachers and university faculty, observe in secondary classrooms, present to large and small student, teacher, and faculty groups on education and culture in the U.S., tour universities, and attend various cultural events.

The model was designed to provide students (whether potential future teachers, teacher candidates, or graduate students/practicing teachers) with opportunities to explore international cultures as they interact with adolescents in school settings and engage in a variety of professional development experiences.

Before, during, and after the travel abroad, participants will also complete either a 3-unit, upper division GE course and prerequisite for the Single Subject Credential, Program (EDSC 320 Adolescence) or a 1-unit of independent study (EDSC 499). To expand students' capacity to participate in a global society, we designed new content and activities that focus on comparative education for these courses. Comparative education is an established academic field of study that examines education in a group of countries by using data and insights drawn from the practices and situation in another country, or countries.

As part of coursework requirements, participants conducted 10 hours of classroom observation in Japanese middle and high schools, conducted an American Cultural Fair for secondary students, and engage in a variety of cultural and professional development experiences. These experiences facilitated completion of their comparative education projects.

Learning goals associated with this experience included the following:

1. Consider age appropriate, individually appropriate, and culturally appropriate practice in international school and community settings;
2. Demonstrate effective interpersonal and professional skills that show sensitivity to cultural norms and differences;
3. Engage in reflective practice through comparative education practices;

4. Participate in the global society through international fieldwork of observations and co-teaching;
5. Develop an understanding of differences and commonalities of American and international adolescents and their educational experiences; and
6. Demonstrate understanding of how learning and development are influenced by language, culture, family and community values.

Designed as an opportunity for both secondary teacher candidates (pursuing single subject credential) and university teacher educators, the International Cohort Cultural Experience (ICCE): Japan included the opportunity for our university teacher educators to deliver presentations to an audience of university faculty and students on *21st Century Teaching, Cyberbullying among American Adolescents, and Trends in Online Standardized Assessments in U.S. Schools*.

This project was funded in part by a Faculty Enhancement and Instructional Development due to its alignment with University and College of Education Strategic Plan to increase the number of students participating in international, service learning, and innovative instructional experiences that prepare students for professional endeavors in a global society. Study Abroad is identified a high impact practice for universities - i.e., it is a pedagogical and programmatic approach that promotes student engagement, retention and graduation.

Related COE goals included:

- Goal 1.4 Strengthen local, regional, national and international partnerships that exemplify excellence in teaching and learning.
- Objective 1.4 Develop and maintain a curricular and co-curricular environment that prepares innovative educators who participate in our global society as partners, models, and advocates for just, equitable, and inclusive education.

The presentation/poster session will include information on how our study abroad program was developed through collaboration with our host secondary school and university, how the student application process was managed, and how faculty presentations and the American Culture Fair were developed and implemented. We will also share recommendations for establishing a study abroad program for teacher candidates and teacher educators, including funding possibilities. Finally, we will share how our teacher education program continues to address global education standards through innovative curricula, fieldwork, and innovative opportunities.

**Keywords:** teacher education, study abroad, high impact practices

# Professional Development Through Mentoring; Both Sides of the Coin

Muhammet Nuri Aydemir<sup>1</sup> and Mine Gündüz<sup>2</sup>

Okan University, Turkey  
<sup>1</sup>mrm\_aydemir@hotmail.com

Bahçeşehir University, Turkey  
<sup>2</sup>mine.gunduz@prep.bahcesehir.edu.tr

## Abstract

In our modern world today, as everything changes very fast, students and their needs change accordingly and this requires teachers to update themselves consistently. With the intention of troubleshooting and at least avoiding the incurable effects of the problems that may occur in the future, most of the institutions take a step to bridge the gap between changing students' profile, needs, abilities and teachers who tend to use safe, standard, but old world methods (Nguyen & Baldauf, 2010). The most common solution is professional development programs through mentoring. The purpose of the conducted study was to investigate the applied mentoring program's process, difficulties and effectiveness in terms of the participant teachers and the mentor of the mentoring program. This study was carried out in a private university in Istanbul, Turkey. The participants of this study (8 female and 1 male) are English teachers who work at this university and the mentor also works at the same university as a teacher trainer. The participant teachers and the mentor had three weeks mentoring program which consisted of pre-observation, observation and post-observation sessions. The data of this study was collected through questionnaires including semi-structured and open-ended questions answered by the participant teachers and the mentor. To broaden the understanding of the findings in this study and analyze the answers of questionnaires obtained from both sides, qualitative methodology was employed. Results of the study showed that both the language teachers (mentees) and the mentor had both similar and also different experiences during the mentoring program. Therefore, this study shows the perspectives and opinions of the both sides.

**Keywords:** professional development, mentoring, mentor.

## Literature Review

Teaching is an applied profession, and as teachers practice their profession in years, they become more experienced, proficient, and practical. However, not only the years teachers have spent in teaching profession, but also the problems they deal with, the methods they apply, techniques they use, the students' profile and their changing needs, the parents they communicate with, the administrators they work with, the colleagues they cooperate with and many other responsibilities make teachers experienced, proficient and practical (Green, 2006). Teachers may tend to keep some standards to be able to survive in the classrooms and they may not want to apply new methods, use new tools during the activities or change their teaching strategies since they have many other responsibilities (Green, 2006). As everything changes very fast, students and their needs change accordingly and this requires teachers to update

themselves consistently. In the report of the European Commission Communication Improving the Quality of Teacher Education (2007), it is pointed out that; “Changes in education and in society place new demands on the teaching profession. [...] classrooms now contain a more heterogeneous mix of young people from different backgrounds and with different levels of ability and disability. [...] These changes require teachers not only to acquire new knowledge and skills but also to develop them continuously (p. 4).”

As a result of this, most of the institutions take a step to bridge the gap between changing students’ profile, needs, abilities and teachers who tend to use safe, standard, but old world methods (Nguyen & Baldauf, 2010). This step is also taken to train teachers professionally to adapt instruction to the student abilities, their learning styles, personality and help teacher adopt new teaching strategies (Bar-Yam et al., 2002). The most common training is professional development programs through mentoring. Little and Nelson (1990) point out that;

“Teacher mentoring programs are now considered as an effective staff development approach for beginning teachers. By establishing teacher mentoring programs, the district serves two important purposes: novice teachers are given a strong start at the beginning of their careers, and experienced teachers serving as mentors receive recognition and incentives (p.14).”

Promoting and supporting new and novice teachers initially - which is the main focus of this paper- contributes to these teachers and their retention in the school system and also reinforcing the mentor role for teachers with more experience is advantageous in the career ladder for teachers and increases professionalism of education (Koki, 1997). This paper - more specifically shows the effectiveness, and difficulties of the applied mentoring program and the perspectives and opinions of the teachers and the mentor.

Teachers are always in a need to take the responsibility of learning since their main objective is teaching, but they need to pursue the new ways of teaching since the modern world learners’ profile requires richer, integrated, social and also metacognitive learning contexts (Alfaki, 2014). When there is a need to refresh and modernize the teaching skills, most of the teachers apply professional development programs. There are many types of professional developments such as workshops, peer-observation, action research, team teaching, peer coaching, and many more (Arnold, 2006). McKimm et al. (2007) state that;

“Mentoring is a protected relationship in which learning and experimentation occur through analysis, examination, re-examination, and reflection on practice to determine learning opportunities and gaps. (p. 52)”

The mentoring has many different programs such as; group mentoring, team mentoring, computer online mentoring, peer mentoring. Since mentoring provides several programs, and it has a variety of goals, such as professional or personal development, and also it is preferably applied step by step, it is seen as the most favoured approach

for in-service teacher training by institutions, universities, and schools (McKimm et al., 2007).

Mentoring is to be given by a more skilled person and s/he needs to be a role model, teach and encourage a less skilled or less experienced teacher with the aim of improving the less experienced teacher's professional development (LaVant et al., 1993). According to this perspective, mentors are planner, organizer, negotiator, inductor (the structural dimension), friend, host, counsellor (the supportive dimension), trainer, educator, assessor (the professional dimension) (Hussein, 2007). The studies mentioned below indicate the strengths and weaknesses of the applied mentoring programs which can trigger some institutions and schools to apply these kinds of professional development programs.

The study conducted in Malaysia by Lyne (2013), the researcher states the aim of the study as;

“It is aimed to measure the effect of a teacher mentoring program on teachers' self-efficacy and achievement in the use of strategies to actively engage their students (p.14).”

One group of twenty-one teachers participated in this three-month program, and in the study pre- and post-test design was implemented. After examining the results, it is concluded that this three-month mentoring program increased the teachers' self-efficacy and pedagogical achievement.

Another study by Mathur et. al. (2012) was conducted in the USA to examine teachers' perceptions of their classroom practices through one-year online mentoring program. In the study, there were 43 mentors out of 66, and 41 newly hired mentees out of 66. According to analysis of forced-choice items; most of the mentors and the mentees stated that they had daily contact via e-mail, phone calls or they had face-to-face meetings to be able to proceed the mentoring program successfully. After this mentorship program, both the mentors and the mentees completed a survey. As a result of the one-year mentoring experience, both the mentors and the mentees benefited the mentorship program in different practices. The mentors viewed themselves more confident in teaching, more capable in reflecting and listening, and more skillful in planning and implementing lessons. On the other hand, the mentees considered themselves more knowledgeable about classroom and the district. Briefly, this mentorship program was experienced positively by both mentors and mentees and it also increased their awareness in classroom practices.

The study by Arnold (2006), which is a little different from other the studies in this paper, was conducted in the Middle East to assess the quality of mentoring. This mentoring program was a kind of support for new local teachers (NLTs) who were going to work for the first time in one military EFL school. The number of the mentees (NLTs) was seven and they were the native speakers of Arabic. The number of the mentors was also seven, but only one of them was native speaker of Arabic, the rest of them was

volunteer expatriates. The mentoring program was a four-week formal program and during this program, mentees had classroom visits by the mentors and the other teachers in the school, they (mentees) had classroom visits to observe the mentors' teaching in the class, the mentees also had pre and post-lesson discussions with the mentors and they had workshops on the materials and methods used in the School. The data collected through questionnaires, interviews, and diary entries written by the author of the study. The results showed that although there were some good changes and improvements about the mentees' professional development, there were many problems which decreased the mentoring program quality. According to questionnaire and interview results of mentors, they had many roles since there were management problems at School. They sometimes took on roles of managers, and sometimes discipline keepers of the mentees. On the other hand, the result of the mentee questionnaires and interviews indicated that the relationships with mentors were not strong enough. It is stated in the article that the most of the mentees could not discuss the lesson plans with the mentors appropriately, they could not get enough feedback from the mentors, that's why they could not benefit the program satisfactorily. One another and really interesting result, which was in both mentees' and mentors' questionnaires, indicated that since the mentees were Muslim and the sixth of the mentors were Christian, the cultural barrier was a burden in this mentoring program.

There is another study carried out in Turkey by Yavuz (2011) and this study indicates a problematic context of mentoring as well. The participants of the study were six English Language Teaching Department (ELT) students who were in the final year (fourth year) at the university, and a mentor who was working at the practicum school where the six ELT students had their practicum experience. The study conducted with the purpose of learning the participants' ideas and experiences about the concept of "mentor" and "mentoring". It was a qualitative study and the data were collected through semi-structured interviews, debriefing notes and journals. Since the study took place during the student teachers' practicum -teaching experience- term, it lasted 14 weeks. According the data collected by the researcher who was working at the participants' university as an academician, the student teachers and the mentor had some problems during the practicum term. The problems of the student teachers were mainly about getting insufficient mentoring support, not getting critical and detailed feedback from the mentor, and the difficulties in planning and applying these plans in the real teaching contexts. The student teachers had two different role models; one was the mentor at the school, the other was the teacher trainer at the university, and these two models did have quite different perceptions about teaching, and these differences caused confusions, problems while the student teachers were having their first teaching experiences. This also indicated that the lack of communication was obvious between the practicum school and the university. On the other hand, the mentor also had some problems such as; arranging appropriate time to give feedback to the student teachers or planning activities together during this practicum semester due to crowded classrooms, workload of the school, and this busy schedule caused unwillingness, being unhelpful to student teachers. According the researcher, the main problem in this context is applying such kind of mentoring programs randomly and without planning, and the solution as stated in the article is applying process-based mentoring program

which consists of pre-observation, observation and post-observation. Since this study did not follow any kind of mentoring program format, done haphazardly, actually the results are not surprising, and unexpected.

In the article by Hussein (2007), which is also related to the problematic context above, it is stated that the mentoring is not a haphazard and poorly conceptualized process. The mentoring is to be planned according to the needs of teachers' in the schools and the steps need to be taken in order to provide a noticeable difference after the mentoring. As a solution, the author proposed a reciprocal and process-based mentoring program, including four steps; pre-observation, class observation, post observation and follow-up session. This format aimed to promote reciprocal mentoring, which enables mentor and the mentee to plan together, think in a critical way and provide constructivist feedback, rather than traditional mentoring, which is restrictive, authoritative since it is checklist-based and behaviouristic.

In this paper, the mentoring program which was applied at a private university in Istanbul with the participants of 9 mentees (8 female and 1 male) and one mentor followed the same model that was followed by Hussein (2007) in his study. Since it is process-based mentoring program which is quite suitable for modern world's requirements of professional development, it is favoured and applied by most of the institutions.

### **Research Questions**

This study aims to find answers of the research questions below;

- How does this mentoring program perceived by the participants and the mentor?
- What kind of difficulties, problems and handicaps have been experienced by the participants and the mentor?
- What kind of benefits, earnings, and advantages have been experienced by the participants and the mentor?
- What are the differences between before the mentoring program and after the mentoring program, in terms of class management, teaching skills, self-efficacy?

### **Methodology**

#### **Participants**

Participants in this study are English teachers (8 female and 1 male) who work at a private university in İstanbul. The participant teachers started to work at prep school in this institution in 2015. They have 24 lessons every week and they have 2 classes. They teach grammar, vocabulary, reading, listening skills in one class and in the other class they teach writing and speaking skills. The participant teachers have weekly objectives to cover and integrate all 4 skills; therefore, these teachers are to apply all the skills every day to be able to reach the weekly objectives on time. Six of the participant teachers graduated from ELT departments, three of them graduated from English Literature departments; however, all of them have pedagogical certificates. One of the teachers is currently doing her PhD, 3 of them finished their master's and 5 of them are doing their master's. Also, 5 of the participant teachers have teaching

certificates from the teacher training programs like Icelt and Celta. The participant teachers have 5 to 10 years' experience of teaching English.

The final participant of this study is the mentor who has been working at the same university as a coordinator and teacher trainer since 2006. She graduated from American Culture and Literature department in 1997, and then completed her master on Educational Administration and Planning in 2009. Also, she is currently doing her PhD on English Language Teaching at one of the state universities in İstanbul. She has been doing this mentoring program at this institution since 2007.

### **Setting**

This research was carried out at the preparatory program of a private university in İstanbul, Turkey. This program established in 2005 consists of about 2100 students most of whom are Turkish EFL students while the others come from Eastern countries. The goal of the program is to enable the students to learn English language and acquire necessary skills to pursue their studies in their respective departments with a view of "Learning English by living it".

The number of the language teachers who are working in this preparatory program is 128 and 105 of them are full time teachers while 23 of them are part time teachers. The language teachers have 24 lessons - 15 of which are integrated skills lessons and the rest 9 lessons are writing-speaking skills with 2 classes. The medium of instruction is English and communicative approach and task based learning are strictly followed.

### **The Mentoring Program**

Since this institution is growing excessively in terms of student capacity and number campuses in different countries in the world, new teachers are hired every year to meet needs accordingly. The average number of the instructors that hired every year is between 20 and 30. The new instructors have at least 3-year of high education experience. No matter how experienced they are, they still have to attend the mentoring program starting at the beginning of every academic year to realize the institution's requirements, expectations and needs. The participants of this study attended this mentoring program at the beginning of the 2015-2016 academic year. This mentoring program lasted three weeks and the teachers had three sessions including pre-observation, class observation and post-observation with guidance of the mentor who is responsible for teacher training programs at the institution regularly.

At the very beginning of the mentoring program, the mentor led a brief meeting with the teachers to make the steps of program clear and decide on which skills were to be improved and then she sent a detailed e-mail including everything about the program to the teachers. After the brief introduction, she started to meet with the teachers individually in the first week. This was pre-observation session. During this session, the mentor wanted the teachers to share their lesson plans and talk about the details, and then the teachers and the mentor made an appointment for the lesson to be observed. In the second week, the mentor visited the teachers on the day they had planned and the mentor observed the whole lesson by taking detailed notes. This was class

observation session. Finally, after each teacher had been observed, in the third week the mentor started to meet with teachers individually to talk about the observed lesson and she gave feedback according to her notes, and also these notes were given to the teachers to analyze their lessons again. This was the post-observation session. The aim of each one of these sessions was to increase the self-awareness and teaching skills of the teachers.

### **Data Collection**

After the mentoring program finished, the data was collected through semi-structured, open-ended questions (Appendix A and Appendix B) which were emailed to both mentees and mentor. Open-ended questions were designed to investigate the participants' views on the effectiveness, benefits and the difficulties, problems of the mentoring program. The teachers were coded by numbers for anonymity (T1, T2, T3, T4, T5, T6, T7, T8, and T9) and they were sometimes referred as teachers, sometimes as mentees. The mentor coded as M. The questions in the questionnaires were asked and answered in English.

### **Data Analysis**

The data from the questionnaires were analyzed qualitatively following the procedures advised by Miles and Huberman (1994). Data analysis was done through highlighting the similar and overlapping answers of the semi-structured and open-ended questions by the participants. There were 4 sections consisting of 15 questions in the mentees' questionnaire and 5 sections consisting of 17 questions in the mentor's questionnaire.

The answers of the mentees for each question were compared in terms of similarity and frequency of the keywords then these similarities were interpreted separately by the researcher. These interpretations were given under four sub-headings, and they were mentioned under the title of "teachers' questionnaire results' in the findings part.

The answers of the mentor for each question were interpreted and some of them were compared with the answers of the mentees to show the similar and different perspectives of both sides about the mentoring program, and these were given under five sub-headings mentioned under the title of "mentor's questionnaire results' in the findings part. Also, some of the participants' and mentor's answers were given as sample quotations to strengthen the interpretations.

### **Findings and Results**

Findings of the teachers' questionnaire and findings of the mentor's questionnaire are given separately in this study.

#### **Teachers' Questionnaire Results**

This part presents the data of the mentees' ideas, perceptions about the steps of process-based mentoring program, and this part consists of four sub-headings.

### **Pre-Observation Session**

Before this session, the teachers had decided about which skills and activities they would teach. Then, they prepared their lesson plans and brought these plans to the session to discuss the reasons why they had chosen these activities, and skills. After these discussions with the mentor, since most of the teachers had some hesitations about what to do and how to do in the class, the mentor's suggestions and advices cleared their confusions. About this guidance, one of the mentees stated that;

"...We analyzed and discussed it [the lesson plan] stage by stage. I found that session useful because I had some hesitation about pre-teach vocabulary stage and production stage. After the session, I realized that I found the answers for those (T7)."

When the teachers were asked about their feelings during the pre-observation session, most of them pointed out that at the beginning they were nervous, excited, and stressed but when they start to discuss the rationales behind their lesson plans with the mentor, they had felt more comfortable, relaxed and positive. One of the mentees stated that; "I felt a bit disappointed, nervous and stressed at first because some things which I thought were meaningful [for the lesson] did not get the same interest from the mentor (T2)."

During the pre-observation session, most of the teachers did not have big problems or difficulties except changing their lesson plans partially or completely. As one of the mentees stated that;

"I found out that I had to change a lot of things on my lesson plan which was a bit challenging (T2)."

It is understood from the answers that some of the teachers found changing their lesson plans challenging and frustrating.

According to mentees, the advantages and benefits of this session were having a different point of view about their lesson plans, seeing different opinions on specific activities and having enough courage to apply some activities in their classrooms. The results of the questionnaires showed that all of the teachers learned some important lessons in this session as one of the mentees stated;

"I was not sure about the timing of some stages and the details of the production stage. My mentor showed me how to set the time efficiently for each stage and how to arrange the production stage in the right way (T7)."

When the mentees were asked about their relationships with the mentor during this session, they stated that the mentor was friendly, willing, encouraging, relaxing, positive, and helpful. Two of the mentees stated that;

"It was a friendly relationship based on mutual understanding (T5)."  
'She was like my colleague who wanted my lesson to be a good one (T9)."

As it was stated in the literature review part, these are the expected, appropriate mentor roles (Hussein, 2007). The mentees stated that they did not feel themselves uncomfortable while discussing, analyzing the lesson plans, which strengthens the conclusion that the mentor was successful in keeping the relationship between her and the teachers as expected level, and positive.

### **Class-Observation Session**

After the pre-observation session, the teachers made some changes on their lesson plans with the suggestions of the mentor, and they agreed on the date and on the specific lesson hour to be observed. The mentor prepared an appointment list, and she started her classroom visits to observe the teachers. During these class-observation sessions, the mentor took detailed notes to share them with the teachers in the post-observation session. Three of the mentees pointed out that being observed by someone while teaching was not natural, it was quite irritating.

They also highlighted that during the class-observation, they were uncomfortable. One of the mentees stated that;

“Being observed by someone is not really natural and can affect the whole class atmosphere both positively and negatively depending on the stress level and the mentor’s attitude (T2).”

On the other hand, rest of the teachers stated that after a while they forgot that the mentor was in the classroom as she did not interfere with anything. Some of them also stressed that since they had had similar experiences in their previous workplaces, they were accustomed to being observed, and that’s why they did not feel themselves uncomfortable. About this point, one of the mentees stated that;

“It was like one of my usual lessons. My mentor was sitting at the back of the classroom and did not interfere with in either the students or the flow of the lesson. Therefore, I did not feel that I was being observed (T7).”

The teachers’ feelings during the class-observation session were quite similar. Most of them pointed out that at the beginning they were nervous, anxious and a little stressed but after a while they became more relaxed. The questionnaires indicate that being observed and teaching at the same time when there was a stranger – in this context the mentor, in the classroom were not easy at the beginning however the mentees got used to this different situation after a very short while as the mentor was sitting in the corner in silence. As one of the mentees stated that;

“At the beginning of the observation session I was nervous but after the first minutes of the lesson I focused on my lesson and felt relaxed. (T7)”

During the class-observation session, nearly every teacher had different problems since each classroom had a unique atmosphere. However, half of the teachers pointed out that since there was a stranger in the classroom, the students were not comfortable as usual. The negative feelings of the students’ obviously affected both the teacher and the

lesson flow. Some of the teachers had some difficulties during the activities due to lack of participation of the students and some of them had timing problems. Also to decrease the anxiety level in the classroom, T1 stated a suggestion;

“The mentor was writing everything said and done in the classroom. I know that it may be necessary for the sake of observation but it made the students nervous. They felt a bit different than usual classes, therefore they did not behave naturally. Maybe video recording could have been better. (T1)”

Obvious from the answers, each teacher had a benefit during the class-observation session. One of them stated that he understood what worked in the classroom and what did not work. Some of them stated that they realized their weaknesses, some of them gained deeper understanding about their teaching, and some of them stated that this session was significant in terms of professional development. As one of the mentees pointed out that;

“To be observed by a professional is valuable to track your professional development. We should have more observations like this! (T6)”

### **Post-Observation Session**

After the mentor finished her class visits, she started to analyze all the notes that she had written down, then she started to meet every single teacher to talk about the observed lessons. She prepared one more appointment list and according to this list, the teachers visited her office. During the post-observation sessions, the teachers got feedback, talked about the weak and the strong sides of the observed lessons and analyzed some points with the mentor.

At the end of the sessions, the teachers were asked what the post-observation meant for them. Most of the teachers pointed out that it was the feedback session. Through this session, the mentees and the mentor read the notes one by one and they discussed some of the points objectively and professionally and the a mentee stated that;

“After I have read the comments about me, I saw myself through the eyes of a professional. It was the time to face with myself and my teaching. (T9)”

Since it was the hardest session according to the questionnaires, some of the mentees were anxious and some of them were quite relaxed but at the end of the program, most of the teachers were happy about the comments that the mentor made, and some of them did not agree with the mentor on some certain points. One of the mentees, at this point, stated that;

“I felt relieved about the things I had done smoothly during the lesson. However, I and the mentor had some different opinions about some points which upset me because I think teachers know and understand their students’ strong and weak sides more than the mentor and sometimes the things do not go the way they have been planned. Therefore, receiving negative criticism on these things is disappointing. (T2)”

As it was easily concluded from the answers that none of the mentees experienced a difficulty or a problem during the post-observation session. They stated that they tried to listen and understand some points which they could not realize during the class-observation time. Only one of them pointed out it was difficult to accept mentor's ideas at first.

Even though there were some difficult times during the class-observation sessions, the mentor did not generalize these weak sides and she tried to give constructivist feedback. That's why every teacher had considered this session as a kind of updating themselves and covering their weak sides to teach better. They stated that all of them got positive feedback about some part of their teachings. It was clearly concluded that they had a chance to see and evaluate some points differently and their self-awareness increased thanks to the post-observation session as one of the mentees stressed that;

“A major benefit for me was that it raised my awareness about my teaching style. There was one comment about my instructions which I still remember every time I am trying to explain a new activity. (T5)”

The relationship during the post-observation was not different from the pre-observation session. The teachers gave the same answers. They pointed out that the mentor was quite friendly while she was giving feedback. Since the atmosphere was relaxing, the communication was quite effective. None of the teachers had a negative and disappointing relationship with the mentor. As T5 stated that;

“Even though the mentor is in a superior position I felt that it was like two friends discussing a peer observation.”

### **Effects of the Mentoring Program on Teachers' Skills, Class Management and Self-Efficacy**

According to the answers in the questionnaires, this mentoring program did not make big changes on teachers' class managements and teaching skills. Some of them stated that since the program was not very long and it was one-time thing, it did not create big differences. However, some of the teachers had become more careful and sensitive about some specific issues such as time management, giving instructions and being student-centered more than necessary. Also some of them indicated that after this mentoring program they felt themselves more confident and stronger which meant that the program had positive effects on some of the teachers' self-efficacy. At this point T2 pointed out that;

“I do not think my class management, teaching skills or self-efficacy have changed after the program. I believe these things are mainly related to teaching experience rather than mentoring programs. Basic teacher training might be useful but I think these one-time experiences do not affect the management skills negatively or positively.”

## **Mentor's Questionnaire Results**

This part presents the data of the mentor's ideas, perceptions about the steps of process-based mentoring program, and this part consists of five sub-headings.

### **The Purpose of the Mentoring Program**

When the main purpose of the program was asked to the mentor, she stated that;

“Each institution has its own missions, goals and objectives. The directors, the level coordinators, teacher trainers of this institution want to ensure that these objectives are achieved successfully. Also we want to increase the quality of teaching and learning. The needs of the students are a lot and increasing every year, and these needs have to be met by the teachers and the students should not see any differences between the experienced and newly hired teachers. Finally, it is important to eliminate the institutional differences. Since the newly hired teachers have experiences and institutional habits of their previous universities, they may have some adaptation problems and at this point, our mentoring program supports the newly hired teachers.”

The reason why the institution is following these stages in their mentoring program is that the institution believes the process-based professional development, not product-based professional development. They want to increase the quality of teaching and learning gradually and in a supportive way, not in an evaluative way. The mentor stated that;

“The only disadvantage of the mentoring program is that it is time consuming and it is applied step by step. I cannot think of any cons of this process except its being time consuming. For each teacher I spend minimum 5 hours, because it is not just that you go and observe the teacher.”

According to mentor there are many advantages of this program. It supports the teachers, shows them their strengths and weaknesses, increase their self-awareness and guide them throughout the professional and personal development path.

### **Pre-Observation Session**

Before the class-observation started, the mentor met with the mentees to talk about their lesson plans, the skills and the activities that would be done, and they scheduled the date the mentor would visit their classes. However, when it was asked to the mentor what the pre-observation session meant to her and she pointed out that;

“It is not just talking about lesson plans or scheduling the appointment, it is also getting to know each other more, learning about expectations of the both sides, guiding, giving support and comforting the teachers and this session is also a good opportunity to establish a good report about the both parties.”

In the questionnaire, there is a question that asks the mentor's roles, and the mentor stated that;

“I have a role of colleague from beginning till the end; however it depends on the teacher’s experience. If a teacher is an experienced one with certificates of Celta, Delta or Icelt, she is just a listener during that time, but if a teacher is an inexperienced one who has not got teaching background and that’s time I, as a mentor, provide more input and further support. Sometimes, I am more active and just provide more support and input. Sometimes I am just there to listen and answer any questions if there is any and just comfort them if there is any stress.”

As mentees, also the mentor experienced some difficulties during the pre-observation session. The mentor listed the difficulties as finding the best way of communicating ideas to some mentees with no training at all, balancing the pre-observation time since she sometimes needs to give more input but due to the limited time, it sometimes becomes a burden. Also sometimes defining the concepts differently by both parties and clarifying the reasons behind them are challenging.

On the other hand, as the mentees experienced many advantages during the pre-observation session, the mentor also had some advantages. She pointed out that the session’s biggest benefit was getting to know each other better. The other advantages were comforting the both sides, knowing the expectations and answering the all questions that might create confusion and hesitation about the lesson plans. The mentor added that the mentees benefited from that session and the following sessions more than she did. She stated that;

“At the end of the process, teachers feel more confident so the advantages are more on the teachers rather than the trainer.”

After she explained the advantages of the pre-observation process, she defined the relationship between her and the mentees. According to her definition, at the beginning, the lesson to be observed just belonged to the mentee because he had prepared everything himself without getting help from her, but after discussing and analyzing it together, the lesson belonged to the mentee and her. This situation made the both parties feel closer, share the responsibility of the lesson and its outcomes. She also stated that sometimes she required help from the other experienced teacher at the institution, and this turned the individual responsibility into collaborative, and the mentees became more relaxed and confident at the end of the session.

### **Class-Observation Session**

Before the class observation time, the mentor looked over the lesson plans one more time and she started to visit the classrooms. Since the mentor did not want to be seen during the lesson in order not to affect the teacher and students, she wanted to sit in the corner to be invisible, but still to see the whole class and the mentee. After finding the right place, she started to write all the details about the lesson, the teacher and the students which was called running commentary. She stated that her main purpose was to write about the behaviors because what observable was more important for her. As she stated, during the class-observation time, she also felt herself stressful because she wanted the teachers to perform the best as well. She also pointed out that although there was no perfect performance at all, the performance which was meeting the needs

of the institution was really important, that's why she tried to be a careful observant in the classroom.

The mentor had some criterias before starting her observation visits, but she indicated that she did not expect to see each and every criteria in the classes. Instead she expected to see maximum two or three things which were the priorities of the institution. One of these priorities was student centeredness. She added that what she expected to observe in a receptive skill class and productive skill class were different from each other and that's why giving a specific example was not easy for the mentor. She also stated that some of the teachers wanted some personal goals to be observed such as reducing teacher talking time (TTT), and she tried to observe these things to give feedback to these teachers in the post-observation session.

As the mentees experienced difficulties mentioned above during the class-observation session, the mentor experienced some problems as well. Some of those difficulties were that some mentees tried to include the mentor to the activities, some students asked questions to the mentor while she was taking notes and also some of the students wanted to read the comments she wrote. She finally added that in some classes, the students did not behave normal, they participated less or they tried to show off which were challenging for both the mentor and the teacher from time to time.

On the other hand, there were many benefits that the mentor experienced during the class-observation time. The mentor considered this session as an opportunity to see the teachers' performances in the real classroom setting. She stated that class-observation session was also a chance to see the transition of the teachers' knowledge into practice. Besides, she pointed out that seeing the teachers' reactions to the unexpected problems occurring in the class, their ways of finding solutions to these difficulties and seeing their flexibility in the class were valuable in terms of collecting information about the teachers, and their teaching styles which were necessary for the institution. However, she pointed out that only one class-observation could not give information about the teachers' full profile.

### **Post-Observation Session**

Before the post-observation session started, the mentor stated that she analyzed her notes to be able to give feedback objectively and she wrote some critical questions on the notes to ask during the post-observation session. Then the mentees whose lessons were observed came to the mentor's office one by one to discuss the lessons in a detailed way. She stated that she started the post-observation session by asking critical questions such as; "How do you feel now? How do you think the lesson went?", and then she gave the running commentary to the mentees, let them read it and they started to discuss the lesson stage by stage.

According to the mentor, during the post-observation session, her roles were not totally different from the pre-observation session. She stated that she was like a guide with the mentees whose lessons were good and sufficient, and she was like an input giver with

the mentees who did not have enough experience or training background. However, she stated a difference between these two sessions. At this points, she stated that;

“In the pre-observation session, since I do not know the class atmosphere and the students, I have to trust the teachers. That’s why my guidance may be not strong enough. However, after the class-observation, since I had a chance to observe everything and everybody in the classroom, I am more confident while giving guidance.”

The difficulties that the mentor experienced during the post-observation part was to give constructivist feedback. She stated that she wanted to talk about the good sides of the lesson, but every lesson partially or totally had some problems and she had to talk about them. She pointed out that;

“That is the most difficult part because every teacher wants to get the feedback in a constructive way which puts a lot of pressure on me. While talking about the areas that the teachers need to improve, I spent too much effort.”

The mentor added that she had to use some strategies while giving feedback such as; using herself as an example, talking about her experiences when she had the same problems as a teacher.

In addition to the disadvantages, the mentor pointed out that she experienced many advantages. The mentor and the mentees clarified the misconceptions, found solutions to the problems that were occurred in the lesson, increased the self-awareness about their strengths and weaknesses, agreed on the commitment to the professional development and at the end of the session both the mentor and the mentees felt themselves more confident about the expectations of the institution. Also, as the mentor said their relationship got stronger since they got closer during this process. She stated that;

“There were sometimes confessions. After learning and talking about strengths and weaknesses, it was a confession time for both parties.”

### **Effects of the Mentoring Program**

As a final statement, she stated that;

“If professional development is a journey, this program is just a beginning.”

She stated that as an institution, they wanted to observe some positive changes which were the main purpose. She added that this program was just a start, the professional development was an ongoing process, and more work had to be done.

### **Conclusion and Suggestions**

This study was conducted with the aim of exploring the effectiveness, difficulties, processes of the implemented mentoring program; not only in terms of the teachers who took place in this program, but also in terms of the mentor who carried out this mentoring program. The data which was collected from both the mentees and the

mentor revealed that both sides had some difficulties, earnings during the process and some of these experiences were quite similar while some of them were different from each other. The mentoring program had three sessions and all of the reflections that were experienced during these sessions were interpreted. To start with, at the beginning of the pre-observation session the mentees were tense and anxious since they were afraid of being judged over the lesson plans by the mentor. However, since the mentor was successful in confronting the mentees, the atmosphere became positive and they easily discussed the stages of the lesson plans. These discussions provided a second perspective for the mentees and they wanted to improve their lesson plans, and activities which was the positive effect of this program on the mentees. It is easily concluded that pre-observation session is a necessary step while applying such kind of mentoring programs since it lowers the anxiety of the mentees and make the both parties closer and understand each other better. Second step was the class-observation session which was appointed on an exact date during the pre-observation time. The mentor visited the classrooms one by one and she kept a running commentary to be able show a solid proof in the post observation time. Results showed that most of the teachers were uncomfortable and anxious because of being observed, and it is easily concluded that not only the mentees but also the students were uncomfortable and tense during these sessions, and these tensions sometimes affected the lesson flow negatively. Also, the mentor accepted that the observation time was difficult for her as well. Since affecting the lesson flow is not a preferred result, some solutions may be found and applied by the institution and the mentor. The final stage of the mentoring program was the post-observation session which was also difficult for both parties. The mentees faced with their weaknesses and strengths and getting positive and negative feedback from the mentor affected their efficacy; some of them felt worried and sad, some of them felt more confident. It is understood that this mentoring program, in small scales or not, made some positive changes on the mentees' perception of teaching and professional development, but accepting these changes was not very easy for the mentees, it took a little time. In brief, during this three-week mentoring program, although there were the times the mentees and the mentor had some difficulties, at the end of the process both parties benefited the program; the mentor could explain the institution's expectations and requirements by increasing the mentees' self-awareness, while the mentees could gain an insight about their weaknesses and strengths related to their teaching styles.

As indicated in the questionnaires, the mentoring program was one time and it was not long enough to create big changes. If the program is held more often and in a longer period, the changes can be more observable and permanent.

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## Appendix A

### Questions Asked to the Mentees (Teachers)

#### Step 1: Pre-Observation Session:

- 1) How would you describe the pre-observation session? What did it mean for you?
- 2) How did you feel yourself during the pre-observation session?
- 3) What were the difficulties, problems of the pre-observation session?
- 4) What were the benefits, advantages of the pre-observation session?
- 5) How would you describe the relationship between you and the mentor during the pre-observation session?

#### Step 2: Observation Session:

- 6) How would you describe the observation session? What did it mean for you?
- 7) How did you feel yourself during the observation session?
- 8) What were the difficulties, problems of the observation session?
- 9) What were the benefits, advantages of the observation session?

**Step 3: Post-Observation Session:**

- 10) How would you describe the post-observation session? What did it mean for you?
- 11) How did you feel yourself during the post-observation session?
- 12) What were the difficulties, problems of the post-observation session?
- 13) What were the benefits, advantages of the post-observation session?
- 14) How would you describe the relationship between you and the mentor during the post-observation session?

**Step 4:**

- 15) What are the differences between before the mentoring program and after the mentoring program, in terms of class management, teaching skills, self-efficacy?

**Appendix B****Questions Asked to the Mentor (Teacher Trainer)****Step 1:**

- 1) What is the main purpose of this mentoring program?
- 2) Why do you follow pre-observation, observation, post-observation format in mentoring program? What are the pros and cons of this format?

**Step 2: Pre-Observation Session:**

- 3) How would you describe the pre-observation session? What does it mean for you? How is it supposed to be?
- 4) What kind of roles do you have during the sessions? How do you feel yourself during these sessions?
- 5) What kind of difficulties, problems do you have during the pre-observation sessions? Can you give some examples?
- 6) What kind of benefits, advantages do you have during the pre-observation sessions? Can you give some examples?
- 7) How would you describe the relationship between you and the mentees at the beginning, during, and at the end of the pre-observation sessions?

**Step 3: Observation Session:**

- 8) How would you describe the observation session? What does it mean for you? How is it supposed to be?
- 9) What are the key points you are mainly observing during the observation sessions?
- 10) What kind of difficulties, problems do you have during the observation sessions? Can you give some examples?
- 11) What kind of benefits, advantages do you have during the observation sessions? Can you give some examples?

**Step 4: Post-Observation Session:**

12) How would you describe the post-observation session? What does it mean for you? How is it supposed to be?

13) What kind of roles do you have during the sessions? How do you feel yourself during these sessions?

14) What kind of difficulties, problems do you have during the post-observation sessions? Can you give some examples?

15) What kind of benefits, advantages do you have during the post-observation sessions? Can you give some examples?

16) How would you describe the relationship between you and the mentees at the beginning, during, and at the end of the post-observation sessions?

**Step 5:**

17) Should this mentoring program make a change on the mentees' class management skills, teaching skills, self-efficacy? Why? Why not?

# A Participatory Perspective on How Intercultural School Development Succeeds

Ewald Kiel<sup>1</sup> and Sabine Weiss<sup>2</sup>

Department of Education and Rehabilitation  
Ludwig-Maximilians University Munich, Germany

<sup>1</sup>kiel@lmu.de

<sup>2</sup>sabine.weiss@edu.lmu.de

## Abstract

The present study examines intercultural school development using a participatory-research approach. The investigation is based on group discussions with teachers and principals who are experts in their contexts and major stakeholders in the process of school development. All aspects mentioned in the group discussions were categorized using qualitative content analysis. The results showed that points important to the success of intercultural school development include opening the school to the outside community, adopting open-minded attitudes, addressing language barriers, and offering additional training and resources to teachers. The final part of this article discusses how these results can contribute to changes in schools.

**Keywords:** group discussion, participatory research, school development

## Introduction

Many countries worldwide are dealing with a rapidly growing number of newly arrived people, especially children and youth. The largest number of migrants resides in the United States of America (US). Germany and the Russian Federation host the second and third largest numbers of migrants, respectively (United Nations, 2016). Migration has an enormous effect on the receiving society in general and on its schools and school systems in particular. On one hand, in the US and Europe, persons and parties who would like to reduce migration have become popular. Many politicians have issued public statements aimed at attracting supporters who consider themselves as the losers in the globalization process. In this political context, a core argument is that immigrants are responsible to a large extent for other people's feelings of misery about life. On the other hand is a milieu in the US and Europe that sees growing diversity as enriching society. This milieu supposes immigration to be a right of needy people and not a privilege (Hamburger, 2009). These briefly sketched societal poles present the ideologically charged background against which the necessary adaptation of schools to the migration process is not an easy one.

If we change the scope from the societal to that of the individual schools confronted with large increases in newly arrived students, we can focus on many problems that cannot be solved only with positive attitudes toward migration. Many of the challenges faced by these schools are caused by the newly arrived pupils' different educational and cultural backgrounds, but challenges also arise from the fact that, often, both the newly arrived pupils and their parents have limited language skills (Lahdenperä, Gustavsson, Lundgren, & Lundgren, 2016). For example, of the refugees who arrived in Germany in

2016, only 2% spoke German, while 48.3% spoke Arabic, and 18.1% spoke Albanian (Rich, 2016). In addition, their experience with how the society they have arrived in functions is markedly limited, making it difficult for pupils to relate the knowledge acquired at their new schools to knowledge and experiences acquired in their countries of origin. Furthermore, a number of these pupils have had little or inadequate schooling. Quite often, teachers experience these challenges as culture clash, whereas educational theories that address the migration context would argue that attributing these challenges to cultural differences is a reduction or a type of illegitimate cultural essentialism (Hall, 1996; Hamburger, 2009).

To adequately educate children from migrant backgrounds, schools and the school system must develop new educational and structural frameworks in a context that is the subject of sometimes heated debate. In contrast, in the research presented in this article, we argue in favour of using participatory research, sometimes called collaborative action research (Cohen, Manion, & Morrison, 2010), to develop frameworks for schools in a migration society. Research of this type has been called a “powerful tool for change and improvement on a local level” (Cohen et al., 2010). We think that school development must explore the local knowledge and perceptions of those who are the agents of change, in this case, teachers and principals. Furthermore, we favour the idea that participatory research disconnects the required school development from top-down ideological discourses and actions and turns the school-development process into a more democratic, bottom-up process. However, we will refer to academic theories of intercultural school development. We think it is necessary to take a theoretical look at a heated debate that circles around a semantic field including such terms as culture, cultural script, culture clash, intercultural school development, and appreciation of diversity.

Based on these considerations, which will be elaborated in the next section, we aimed to identify structures, measures, cooperation and attitudes necessary for successful intercultural school development. This investigation was based on group discussions with teachers and principals who are experts in their contexts and major stakeholders in the school development process. In the field of participatory research, we considered them as focus groups. All aspects mentioned in the group discussions were categorized using qualitative content analysis (Hsieh & Shannon, 2005; Mayring, 2000). This article also discusses how the findings can contribute to changes in schools according to teachers’ and principals’ opinion.

### **Participatory Research and School Development**

Participatory research is a qualitative research method that combines two perspectives: that of the scientist and that of the practitioner. Both parties co-construct knowledge and strategies to meet challenges in professional contexts and in everyday life. To accomplish this, the literature usually mentions the following participatory-research criteria (cf. Bergold & Thomas, 2012; Cohen et al., 2010; Kemmis & McTaggart, 2005; Reason & Bradbury, 2008).

1. Both academic researchers and practitioners must be involved in the investigative process.
2. The problem to be addressed must be of key interest to local and additional stakeholders.
3. The stakeholders should be involved in as many of the research stages as possible; some say in all research stages.
4. Knowledge is generated by collective decision-making through deliberation.
5. The context of knowledge generation is a safe space. Nobody who is involved should be confronted with negative consequences due to statements or arguments made during the investigative process.
6. The discourse should be, according to Habermas' (1973) famous concept, domination free. Pragmatically, a domination-free discourse should include a chairperson to organize it so that it does not become anarchic. However, there are utopists who deny the necessity of a chairperson.
7. The investigative process is marked by iterative cycles.

Multiple theories of school development argue that it cannot be decreed in terms of forcing it against teachers (Dalín, 1996). In addition, there is a broad consensus in both governance theories and New Public Management theories that a multitude of actors must be enabled to participate in change processes (Altrichter, 2010), which, ideally, should be organized to include at least practitioners and outside change agents (Johnson, 2012), of whom researchers are one type. School development theories that address inclusion particularly emphasize this type of argument, with many of them pointing out that educational processes in schools are initiated and supported by many actors and that there is a need for multi-professional collaboration among regular education teachers, special education teachers and social workers (Severiens, 2014). In addition, schools must cooperate with extracurricular institutions, including other educational institutions (other school types, kindergartens, and vocational training institutions); local cultural, religious, or public organizations or associations; youth welfare services; therapeutic and medical services; and the regional economy. In terms of participatory research, other stakeholders include interdisciplinary collaborators and extracurricular institutions. In summary, this means the following: two research contexts, "participatory research" and "school development theories," support each other because they are interrelated. From our perspective, this is a desideratum in qualitative research in professional contexts.

When one looks at intercultural school development or school models for a migration society, it is evident that empirically based models and concepts supporting such development are lacking (see e.g., Lahdenperä et al., 2016). There exist only some basic conceptual considerations, which, if empirically based, usually do not meet the criteria of good research as proclaimed by the American Psychological Association (APA). Many of these basic considerations are linked to the internationally influential thoughts of Per Dalín (1996), who stressed the necessity intercultural school development processes, like those used to develop any school, to address all institutional levels, which include the following.

1. The personal level, which focuses on teacher competencies and training. Training should impart knowledge about migration, pressures from norms and hierarchies, unity, diversity, cultural and intercultural competencies, cultural scripts, and dealing with multilingualism in the institution etc. Teachers also need to become familiar with a new or changing system of values or beliefs.
2. The curricular and didactic level, which focuses on specifying pupil competencies, learning goals, and educational standards, which must comply with the values of tolerance and acceptance of diversity.
3. The structural and organizational level, which addresses structural changes necessary to open the school, making diverse multi-professional and interdisciplinary cooperation with outside stakeholders possible. From this perspective, a school can no longer be seen as an isolated isle.
4. The social level, which is about organizing interaction in a new manner that corresponds to the values of mutual recognition and tolerance.

These four levels provide a matrix for a development process and the following research questions.

### **Research Questions**

The aforementioned considerations show that an intercultural school development process cannot be decreed in terms of forcing it against teachers. However, the concrete implementation of the school development process remains unresolved. Concrete measures effecting changes on the levels mentioned are lacking. For the purposes of the present participatory research, we propose the following measures.

1. To capture conditions and requirements necessary for an intercultural school development process by investigating the needs of those who must deal with these conditions and requirements in their daily work.
2. Based on this investigation, to identify concrete measures for schools, teachers, and other groups involved in school life.

Thus, the main research question is as follows.

- What structures, activities, cooperation, and attitudes are necessary for an intercultural school development process?

### **Methodology**

#### **Procedure**

According to the principles of participatory research, the present study conducted investigative group discussions with teachers and principals, both important stakeholders in the process of intercultural school development. Half of the participants had leadership roles, and the other half did not. Unfortunately, for legal reasons, it was not possible to include students and parents. The group discussions were moderated by scientists with experience in the education field. To comply with the first principle of participatory research, various types of practitioners and researchers engaged in mutually stimulating conversations to identify collective patterns of orientation and possible interventions in the context intercultural school development (see Barbour,

2007; Morgan, 1997). The study deemed valid only those statements that conjointly determined a collective pattern of orientation, as this seems in accordance with the strong democratic ideals of participatory research.

### **Project context and sample**

The project 'School for Everyone at Ludwig-Maximilians University Munich, Germany, which is funded by the Asylum, Migration and Integration Fund (AMIF) of the European Union, is on intercultural school development. The project aims to implement sustainable structural improvements in schools and universities and standards for new concepts in the field of intercultural schools. These improvements closely link school systems and teacher education, for example, by creating courses at universities and establishing an online knowledge system for conducting intercultural development in schools.

The present study's sample included 44 experts from various types of schools: 15 from primary schools, 16 from secondary schools, and 13 from high schools. Recruitment was initiated through an announcement made by the head of the project 'School for Everyone and forwarded to the relevant school-system administration departments. Participation in the group discussions was voluntary. The study's inclusion criteria were as follows.

- Experts must have been active in the teaching profession for at least six years (completion of the stabilization phase, Huberman, 1989).
- Experts had to have practical experience in intercultural work at school, for example, by participating in projects, working groups, parental work, or external cooperation etc.

During the selection process, care was taken to include participants from various regions to avoid regional agglomeration. Furthermore, the selection process took into account the participants' additional roles (e.g., special counseling tasks held by teachers) to ensure that only those with higher-than-average occupational commitment were included.

For the group discussions, the participants were divided into seven discussion groups having five to eight participants each (see the considerations given to group size by Adler & Clark, 2008; Morgan, 1997). Participants were divided into groups that contained only one representative from each school involved, for the following reasons:

- 1) To increase the diversity of experiences and perspectives (see Agar & MacDonald, 1995; Hollander, 2004).
- 2) To enable participants to speak openly, knowing that no one else from their school was in their group.

### **Data collection, analysis, and validation**

Each group discussion was two hours long. The discussions started with no disclosure agreements, again in order to allow a safe space. The discussions were thematically structured around the following key questions.

- Which structures, measures, cooperation, and attitudes are required for an intercultural school developmental process?
- Which structures, measures, cooperation, and attitudes are especially important?

During the discussions, statements and opinions were initially written on moderation cards and made visible to all participants. Attempts were made to highlight opinions through mutual conversation and to reach consensus through collective mind-mapping. In each group, an experienced moderator currently active in teacher education was responsible for facilitating collective decision-making through deliberation. Thus, discussions were not entirely domination free because of the moderators' activities, which were seen as facilitating focus on the topic. In each group, another experienced individual took protocol notes. Prior to the discussions, the moderators and recorders were trained.

Aspects mentioned in group discussions were categorized using qualitative content analysis (Hsieh & Shannon, 2005; Mayring, 2000), the goals of which are to reduce material to the fundamental content and to obtain through abstraction a straightforward corpus that retains an image of the raw material (McTavish & Pirro, 1990). Participants' statements were categorized with the help of the MAXqda program (MAXqda, 2011). To analyze the material, first, a list was made that described each category, including examples, and the overlaps and distinctions among categories. Each category was named after the structures, measures, cooperation, and attitudes that it contained. The categories could be structured in higher-level areas; therefore, the results displayed followed the underlying order of the raw material (Coffey & Atkinson, 1996; Patton, 2002), preserving the discussions' structure and foci. Then, to explain and illustrate the categories, they were linked with corresponding justifications and examples.

To verify the quality criteria, the inter-rater reliability (IRR) was calculated. All aspects specified by discussants (structures, measures, cooperation, and attitudes) were double coded. Calculation was performed using MAXqda. Consensus was reached when at least 90% of the relevant passages were identically coded. In the literature, a reliability coefficient of .70 overall is seen as satisfactory (Bos, 1989, p. 62). In all, 337 statements relevant for an intercultural school development process were coded. Only a few statements could not be integrated into the category system, such as when an aspect was too vague or too general for its meaning to be understood. An example of this was "concrete perspectives" [MRS\_LE\_5], whose exact content and significance for the school development process could not be clarified. For all categories together, the initial IRR was .86, with 280 of 337 possible matches. In some categories, the IRR was less than .80. To improve these IRRs, the protocols of the group discussion were reconsidered and a communicative validation process performed (Kvale, 1995). This process focused on categories with an IRR < .80. By revising the categories, a higher degree of selectivity and a higher IRR were obtained: .89 with 300 of 337 possible matches (see Table 1).

## **Findings**

Table 1 shows the category system for the structures, measures, cooperation, and attitudes that teachers and principals consider necessary for joint intercultural school development process.

**Table 1:** Category System of Joint Intercultural School Development

<b>Codings</b>	<b>total</b>	<b>corr</b>	<b>non</b>	<b>IRR</b>
<b>Opening of the School to the Outside/Networking</b>	<b>100</b>	<b>91</b>	<b>9</b>	<b>.91</b>
Opening the School for Parents	42	35	7	.83
Networking with the District	7	7	0	1.0
Networking with Other Schools	10	10	0	1.0
Networking with External Support Institutions	41	39	2	.95
<b>Teachers' Attitudes</b>	<b>76</b>	<b>65</b>	<b>11</b>	<b>.86</b>
Being Willing to Change	10	8	2	.80
Being Open Minded	22	18	4	.82
Being Self-Reflexive	5	5	0	1.0
Being Tolerant	12	10	2	.83
Being Empathic	10	9	1	.90
Being Stable	17	15	2	.88
<b>Tasks of School and Teachers</b>	<b>82</b>	<b>73</b>	<b>9</b>	<b>.89</b>
Creating Offers for Pupils	15	13	2	.87
Making Culture a Topic at School	17	14	3	.82
Cooperating with School Social Work	11	11	0	1.0
Strengthening Cooperation and Team Work	11	9	2	.82
Structuring Lessons	12	12	0	1.0
Education Pupils	9	8	1	.89
Practicing Supervision and Peer Counselling	7	6	1	.86
<b>Structural Framework</b>	<b>79</b>	<b>71</b>	<b>8</b>	<b>.90</b>
Breaking down Structural Barriers	33	30	4	.90
Training Teachers	25	22	3	.88
Counteracting Language Barriers	15	14	1	.93
Allocating Special Needs Teachers	6	6	0	1.0

**Legend:** *total*: discussants' statements in total; *corr*: statements which were consistently assigned to category by both encoders ('correlating'); *non*: statements which were not consistently assigned to category by both encoders ('non correlating'); *IRR*: inter-rater reliability.

### Opening the school to the outside/networking

According to the teachers and principals, the most important factor of an intercultural school development process is *Opening the School to the Outside* (100 statements). The category *Opening the School for Parents* was the largest (42 statements). Integrating parents into school life is the central demand on schools. The fundamental starting point for interaction and cooperation between parents and the school is motivating parents who have migrant backgrounds to participate actively in school life, because "parents often remain distrustful of school. Especially parents with a migrant background have difficulties in identifying with institutional structures and procedures" [GY\_AB\_1]. Parents do not get involved because they doubt that they are an accepted part of school life. Successful parental work aims to overcome distrust and resistance as a way to develop better relationships with pupils. "Pupils learn to be more self-reliant and successful when parents have a positive attitude toward school" [GY\_AB\_1].

Some discussants complained that they need to support parents by handing-over activities for which they are not responsible or not sufficiently qualified; a tendency "to pass on responsibility to others" was mentioned several times. In these cases, if difficulties occur, teachers are ultimately responsible. In addition, many parents seem reluctant to respond to inquiries from schools [GY\_AB\_1]. Therefore, schools need to implement "low-threshold offers for parents," which provide incentives to take part in

school life [GS\_LE\_7]. Examples of this included some innovative ideas, including language classes for parents at the school, multilingual parents' evenings, and a "parents' café" [GS\_LE\_7]. However, both teachers and principals reported a language barrier because many parents do not (yet) have necessary language skills. Translators are lacking. When pupils' needs require teachers to contact parents, creative solutions are needed. For example, one discussant writes letters to parents in simple language so that pupils can translate them into the language spoken at home [MRS\_LE\_5].

Opening the school to the outside world also requires *Networking with the District* (7 statements). That means getting in touch with local authorities, associations, churches, and companies. In addition, *Networking with Other Schools* (10 statements) can be accomplished by "shared school classes" to facilitate the transition between differing school types. Another crucial element is *Networking with External Support Institutions*. "A good support system is necessary because as a teacher you cannot take care of everything. A teacher does not have to know all the external support institutions, but every school should have a coordinator for this" [MRS\_LE\_5]. The 41 statements in this category reflected the broad range of external partners with whom teachers cooperate. Youth welfare services, therapeutic and medical institutions, and doctors, psychotherapists, and occupational therapists were mentioned frequently. In addition, school counseling institutions and individual school assistants may work directly in schools [GS\_AB\_4].

### **Teachers' attitudes**

Teachers and principals characterized the attitudes necessary for a joint intercultural school development process in six closely related categories. By far, the largest category was *Being Open Minded* (22 statements), defined more precisely as "openness toward heterogeneity" and "openness toward diversity." "Cultural diversity represents an enrichment. This is driven by a certain idea: I recognize the 'otherness,' and I consider it as valuable" [GS\_AB\_4]. Schools need to provide a model of open-mindedness; only then will children and youth show this attitude later in life [GS\_AB\_4]. Open-mindedness is related to *Being Willing to Change* (10 statements), described in terms that include "daring," "rethinking," "courage to innovate," and "leaving familiar terrain and setting foot in a new world." "It takes courage to overcome the fear of new things, for example, talking to an unknown person who does not fit in one's own scheme" [MRS\_LE\_5].

Open-mindedness and willingness to change presume *Being Empathetic* (10 statements). In the context of an intercultural school development process, empathy means not only taking on another person's perspective, but also "appreciating pupils' languages and cultural backgrounds" [MRS\_LE\_5]. Empathy "must be a two-way-street. Pupils as well as parents need to be introduced to empathetic behaviour" [MRS\_LE\_5]. This, in turn, presumes *Being Tolerant* (12 statements). "Tolerance means that teachers accept and bear with the otherness" [MRS\_LE\_6]. Tolerance requires *Being Self-Reflective* (5 statements), which is a self-critical rethinking of one's own "traditional concepts" [GY\_AB\_1]. Of help in this context is *Being Stable* (17 statements), which includes such aspects as stress resistance, the ability to recover, and the ability to distance oneself. "It

is important to know how to distance. It won't help anybody if we are in hospital due to burnout" [GS\_AB\_3].

### **Tasks for schools and teachers**

Schools and teachers need to initiate certain offers for pupils, but discussants also requested offers for teachers to enable and support them to work successfully with pupils from migrant backgrounds. *Creating Offers for Pupils* (15 statements) refers to both language and counseling, including language-support classes or school-career guidance. Some discussants proposed training select teachers to coach pupils and parents on the school system and school careers. *Initiating Common Activities and Events* (5 statements), including excursions, study tours, and school festivals, promotes social cohesion among pupils. Other statements concerning tasks for schools and teaching staff can be categorised as *Making Culture a Topic at School* (17 statements). Most of these statements refer to developing appreciation for other cultures. Another urgently needed offer for pupils is *Cooperating with School Social Work* (11 statements). From the discussants' point of view, school social work is an opportunity to improve the situation of children and youth, because it allows long-term support at the interface between school and family [GY\_AB\_1].

Another important task for teachers is *Strengthening Cooperation and Team Work* (11 statements). The teachers and principals defined cooperation as "mutual support in the areas of exchanging working materials, planning lessons, and teaching" [MRS\_LE\_6]. Cooperation also included the following aspect: "Team teaching is becoming increasingly important to respond to all challenges, especially those resulting from traumatized and aggressive children" [GS\_AB\_3]. Unexpectedly, the topics *Structuring Lessons* (12 statements) and *Educating Pupils* (9 statements) played more minor roles in group discussions. Only four statements stressed differentiation and individualization during lessons, and seven statements described concrete examples of making culture a subject of discussion during lessons. Some statements reflected best practices and others worst practices ("Stereotyping happens quickly" [GY\_LE\_2]). The few statements regarding education were exclusively about "setting clear limits" [MRS\_LE\_6]. In addition, offers for teachers are essential because schools must compensate for the demands and burdens placed on teachers during the school development process. Of these offers, discussants considered the opportunity for *Practicing Peer Counseling and Supervision* the most important (7 statements).

### **Structural framework**

Some categories focused on barriers that must be overcome to enable the process of school development; other categories referred to urgently needed measures. The largest of these categories (33 statements), *Breaking down Structural Barriers*, summarized resources that were lacking and time and space barriers. Resources seen as lacking ranged from staff shortages and turnover to overcrowded classes, insufficient financial means, and a government reluctant to provide new textbooks and materials helpful to pupils from migrant backgrounds. Spatial restrictions included a lack of sport facilities, available rooms for differentiation and parental work, and school buildings in need of renovation ("Cage holding, pupils could not move, because there is no room. It is no

wonder that aggressions break out” [GS\_AB\_3]). Time-related barriers inhibit responding to pupils’ needs; therefore, additional hours or flexible time allocation are needed to address the concerns of pupils and parents from migrant backgrounds [MRS\_LE\_6]. The category *Training Teachers* (25 statements) stressed the need to qualify school staff for changing working requirements. From the teachers’ and principals’ perspectives, training programs should focus on intercultural knowledge “to be able to properly estimate the background behind unusual behaviour, for example, eating culture, behaviour between children and adults, and between men and women” [GS\_AB\_4]. There is also a need for training regarding instruction, including “language-sensitive instruction” [GY\_LE\_2]. Discussants reported that some pupils’ traumatic experiences in their countries of origin massively affected their daily school work. Therefore, training must address trauma and dealing with trauma. “A child said, ‘My mother was burnt in the war.’ There was nothing I could do” [GS\_AB\_3].

*Counteracting Language Barriers* (15 statements) is, in the discussants’ opinion, “the ultimate, everything else is based on it. [...] Only after having resolved this problem can a school development process start at all” [MRS\_LE\_5]. Teachers should possess foreign language skills. Furthermore, searching for a translator is time- and labour-intensive, and interpretation and translation raise special problems. “Sometimes older siblings, aunts, cousins translate [...]. That works as long as it concerns organizational issues, but if it concerns conflicts, you need an independent person. [...] Younger children as translators are overstrained because they are afraid to talk about problems in the presence of adults” [GS\_LE\_7]. The structural framework is completed by also *Allocating Special Needs Teachers* in regular schools (6 statements) to support pupils with special needs during lessons.

## **Conclusions**

The present study’s participatory-research approach and its findings enabled identification of the conditions necessary for successful intercultural school development. Some of these conditions are briefly outlined below.

1. Intercultural school development requires opening to the outside community  
Teachers and principals agreed that school development needs to be based on an opening to the outside that involves parents, external support systems, and the local environment. Extracurricular learning sites and support systems contribute to equal opportunities. This is particularly important for pupils with migrant backgrounds, as they are often disadvantaged (Dustman & Theodoropoulos, 2010). Reducing the gap between children from disadvantaged families or those with migrant backgrounds and children from the general population is possible only through networking with the surrounding community. Networking requires that a school be informed about local support and the local labour and training markets. Contacts in these fields must be constantly renewed. In addition, forms and routines of exchange with parents must be established, even if they are described as “hard-to-reach” (Jeynes, 2011; Kohl, Lengua, & McMahon, 2000). Parents are more engaged with the school if they believe that they are able to support their children’s educational success (Hoover-Dempsey et al., 2005). Therefore, schools need to attract parents by making their involvement “desired,” by creating offers such as

language courses, and by being familiar with country-specific backgrounds (van den Bergh, Dennessen, Hornstra, von Voeten, & Holland, 2013).

2. A shift in attitudes, including being open-minded, empathetic, and self-reflective, is crucial

According to the teachers and principals, school professionals should be open to change, tolerant, appreciative, self-critical, and possessed of the courage to try new, innovative ideas. Such attitudes are important because they influence the perception and interpretation of events in educational practices (Pajares, 1992). But, teachers complain about a lack of resources, which adversely influences attitudes toward diversity and inclusion (Avramidis & Norwich, 2002). Nevertheless, attitudinal change remains a central element in school development. But changing values and attitudes generally is a mentally challenging process that often gives rise to conflict and resistance.

3. Teachers' cooperation and teamwork must be strengthened

Teaching pupils with diverse educational needs and prerequisites can be managed only through cooperation. This cooperation might take many forms, including verbal exchange, joint work planning or work organization, and team teaching, all of which will positively affect pupils' performance (Lomos, Hofman, & Bosker, 2011) and teachers' efforts to jointly develop solutions and teaching ideas and to manage linguistic deficits (Bettencourt & Weldon, 2011).

4. Intercultural school development needs additional resources and appropriately qualified teachers over the longer term

Teachers and principals stressed that a broad range of resources is necessary, but, particularly, extra hours or a flexible time quota. Likewise, appropriate space is needed for counselling, differentiation, break times, and so on. The same applies to qualified staff. Discussants complained about work overloads due to lack of resources. Higher workloads cannot be a long-term solution, because increased effort without reward induces exhaustion, frustration, and an increased risk of illness (Siegrist, 1996; Stansfeld, Shipley, Head, & Fuhrer, 2012). Furthermore, more training is needed. Teachers repeatedly expressed a particular need for further training in "cultural knowledge" so they can show appreciation and establish common ground for interaction. In particular, the discussants emphasized the issue of dealing with traumatized pupils. Many refugee children have experienced direct exposure to war-time violence, displacement and loss of home, separation from caregivers, detention, and torture in their countries of origin, during flight, and in refugee camps. Many studies have documented a wide range of symptoms, including post-traumatic stress (Fazel & Stein, 2003; Lustig et al., 2004). It is necessary both to qualify teachers to deal with traumatized pupils and to provide additional supervision. But, training is not enough, because trauma demands therapeutic support, which requires finding ways to initiate cooperation between schools and psychotherapists.

5. School development must address the language barrier

Language barriers affect all levels of school development. Long waits to obtain interpreters result in valuable time lost in addressing pupils' and parents' needs, creating

obvious disadvantages in schooling and social integration (Ryan, Sales, & Rodriguez, 2013). The problem is further exacerbated if siblings act as interpreters, as they then become involved in problems and conflicts that may overwhelm them. Resolving this problem requires that schools be provided with quick, easy access to adequate staff.

#### 6. Elements of a school development process must be jointly elaborated through participatory research

Elements of a school development process need to be jointly elaborated through deliberation that includes all stakeholders. To implement the measures and strategies described above, both teachers and principals must be willing to put them into practice. It is notable that the measures, interventions, and structure frameworks developed by this study's participants are in accordance with school-development theory. Bottom-up processes ensure realization of the measures elaborated (Dalin, 1996) and prevent initiatives from dying premature deaths because stakeholders could not identify with them. The present study also shows that involving teachers and principals in research processes works. The discussants stressed important structures, activities, cooperation, and attitudes that addressed all levels, including the personal, social, and organizational, of schools and school development.

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# The Development of Empathy in the Disposition to Teach Students With Disabilities in Inclusive Classrooms: Is Knowledge Enough?

Jasmine Begeske<sup>1</sup>, Janice A. Grskovic<sup>2</sup> and Suneeta Kercood<sup>3</sup>

College of Education  
Purdue University, USA  
<sup>1</sup>begeske@purdue.edu

School of Education  
Indiana University Northwest, USA  
<sup>2</sup>jgrskovi@iun.edu

College of Education  
Butler University, USA  
<sup>3</sup>skercood@butler.edu

## Abstract

Schools of education often require teaching candidates to take a course about exceptionalities. All teachers need to know about laws that apply to their profession and develop a basic understanding of the 14 conditions that qualify students for special education services. But teaching has changed in the last 20 years. Now, it is expected that all teachers not only know about exceptionalities, but are willing and able to differentiate instruction in their classrooms to accommodate the needs of a diverse group of students in inclusive settings. To accomplish this, teachers need to develop the ability to cooperate and confidence in their knowledge and skills in teaching a diverse group of students. But, before knowledge and skills are activated, a teacher needs to care, or empathize with students with disabilities. McAllister and Irvine (2002) reported that teachers believed empathy helped them to create "more positive [student-teacher] interactions", establish "more supportive classroom climates", and ensure more "student-centered practices" (p. 433).

Empathetic teachers are thought to create more nurturing classroom environments where all students, regardless of race, culture, ethnicity, or ability are understood and cared for (Berman, 2004). Singh (2013) found a significant correlation between middle school teachers' reports of their empathy and their reports of their likelihood of intervening in a bullying situation, providing evidence of empathy's role in influencing teachers' actions and behavior.

Teacher empathy is theorized as essential to the work of teachers in diverse classroom settings (Dolby, 2012). Empathy has an important role in culturally responsive teaching and students' social and cultural perspectives should be foundational in teachers' instructional decision-making. Warren (2015) investigated the role of empathy in teachers' response to the social and intellectual needs of one diverse population, Black males. The Scale of Teacher Empathy for African American Males (S-TEAAM) was used to measure teacher conceptions and application of empathy in teaching. Empathy is thought to include both affective and cognitive responses (Hoffman, 2000). Through factor analyses, Warren identified two subscales, 1) teachers' beliefs about empathy,

and 2) teachers' application of empathy to their academic, behavioral, and social/relational interactions with Black males.

Another diverse population is students with disabilities. Kliss & Kossewsk (1996) reported that special education teachers were significantly more empathetic than secondary general education teachers and were slightly more empathetic, but more similar, to elementary teachers in empathy. Morgan (1984) assessed the empathy of 24 teachers of students with emotional disabilities and found that teachers who were rated high on empathy by their supervisors were also given high ratings for their teaching performances. Even more important, high-empathy teachers did not view emotionally disturbed children as being that much different from other children.

Trzcinka and Grskovic (2011) qualitatively analyzed 10 weeks of teacher candidates' field experience reflections for the disposition to teach in special education. One of the five constructs that emerged in this study was empathy. They found that graduate teacher candidates demonstrated empathy earlier than undergraduate candidates but that all candidates developed empathy through experiences working with students with disabilities.

Suzuki (2007) stated that empathy based on the recognition of individuality is thought to be important for teachers. Suzuki analyzed the scores of 620 teachers on the *Empathic Experience Scale*, which included open-ended statements common in daily conversation. Their results confirmed the importance of empathy - based on the recognition of individuality - and suggested that it was possible for teachers to improve their level of empathy and interactions through their experiences. Warner (1984) demonstrated that teachers can be trained to empathize with their students. In an attempt to increase teacher empathy for students with disabilities, Broomhead (2013) asked a mother of two children with disabilities to share her 'story' with pre-service teachers.

In this study, we first set out to determine if a new curriculum was successful in developing empathy in undergraduate students preparing to become teachers. An instrument developed specifically for this study was used and asked candidates to rate themselves from A = "not true of me" to E= "completely true of me" for 18 statements across the domains of empathy and confidence. The confidence items assessed how well the student felt prepared to teach students with disabilities (e.g., "I feel prepared to address the needs of all students."). Items in the empathy domain assessed the candidate's willingness or desire to teach students with disabilities (e.g., "I am more likely to take initiative in working with students with disabilities because of this experience."). A second question was about the relationship between knowledge and empathy. Do the students who gain the most knowledge about teaching students with disabilities also develop the greatest empathy toward working with them? The third question was related to the value of working with students with disabilities in the field in the development of empathy to teach in special education. Would students who experienced inclusive classrooms develop greater empathy than those who were in elementary classrooms without students with disabilities?

Survey data were collected from all undergraduate students enrolled in an introductory course in special education (EDPS 265: The Inclusive Classroom), at a large Midwestern University. The survey was anonymous and included no student names or other identifiers. To answer the first research question, posttest survey data were collected across several semesters (n = 765). Data were analyzed to determine if all students had developed empathy to teach all students, including those with disabilities. To answer questions two and three, the survey was administered to students at the beginning and end of the course (pre and post) so that growth attributed to the course could be assessed. For the question on the relationship between knowledge and empathy, items included in the two constructs were correlated to determine if knowledge alone was related to the development of empathy. For question three, student pretest and posttest data were divided into two groups based on the type of field placement they had in the schools that accompanied the course. Students in the Typical group experienced a classroom exclusively for students without disabilities. Students in the Inclusion group experienced teaching students with and without disabilities.. Both placements were in public elementary schools. A group comparison on the development of empathy and the dispositions to teach in special education will be analyzed.

**Keywords:** teacher preparation, dispositions, disabilities, empathy

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# Refugees: The New Global Issue Facing Teachers in Canada

Susan Barber<sup>1</sup> and Lorna Ramsay<sup>2</sup>

Faculty of Education  
Simon Fraser University, Canada  
<sup>1</sup> Susan\_Barber@sfu.ca

Faculty of Education  
Simon Fraser University, Canada  
<sup>2</sup> Lorna\_Ramsay@sfu.ca

## Abstract

This conceptually-based paper focuses on recognizing the growing needs of teachers in the Greater Vancouver area in British Columbia, to acquire the skills and knowledge necessary for teaching newly arrived refugees to Canada. From November 2015 to January 2017, 40,081 new Syrian refugees landed, with similar numbers to come in the next year. Teaching these students is very different from using an English Language Learner (ELL) approach; many refugees have experienced trauma in pre-migration, migration and post-migration, and others may have no literacy schooling in their first language or interrupted schooling. In pre-service teacher education programs and in professional development offered in schools, there is a lack of guidance on how to create safe and inclusive environments for the particular psychosocial and learning needs of these newcomers. This paper will draw on narratives of teachers in classrooms where several waves of refugees have settled, especially from Iraq, South Sudan, Somalia and now Syria, and outline some of the arts-based learning that provides these students with a means to develop literacy skills, self expression, a sense of belonging, a new identity and importantly, the possibility of reducing trauma as they transition to their new lives.

## Introduction

I came into my class and found one of the refugee boys under the table, sobbing. The other students told me another boy had startled him. I found out later that his neighborhood in Iraq had been bombed and he'd see a man burned alive. (Teacher enrolled in the Masters program, 2016).

Today, in several school districts in British Columbia and across Canada, new refugees are being settled into communities, and their schools are being asked to provide resources to help these youth learn how to function academically, socially and culturally in our very different, yet tolerant and multicultural, society. However, many teachers find it professionally and personally overwhelming to deal with their special needs due to a noticeable lack of training in how to deliver basic instruction to these students (Kovinthan, 2016; Kanu, 2008; Stewart, 2012; Yau, 1995).

This is a growing concern because the number of refugees around the world continues to grow. The United Nations High Commission for Refugees determined that in 2015 there were 21.3 million refugees, about half of whom were children under the age of eighteen (UNHCR, *Figures at a Glance*, 20 June 2016). Displaced persons due to war,

violence, oppression, and persecution are now estimated at 65.3 million, up 5.8 million from the previous year (UNHCR, *Figures at a Glance*, 20 June 2016). Whatever the numbers, one thing is certain: educators have a critical role to play in the way refugee youth experience schooling with the teacher being a primary source of guidance, empathy, safety and acceptance for the students and their families (MacNevin, 2012; Cummins, 2000).

In the fall 2016 Master of Education (MEd) cohort in which Susan (author) taught, she noticed an acute shift in interest in the teachers' discussions and inquiry projects compared to previous years. She discovered that resources about refugee education are lacking in both academic literature and specific teaching strategies, while simultaneously becoming more urgently needed. Often it is the more experienced teachers who have been in the schools for 10+ years who are most able to mark how things are changing, and rapidly. Sharing teaching stories about working with refugees often fills the gap as everyone in the school scrambles to adapt best practices to fit the needs of the newly arrived refugees.

The focus of this paper is to provide an overview to educators to better comprehend concepts related to teaching refugees. Many teachers first become aware of feelings of inadequacy when they realize they cannot implement known methods of teaching English Language Learners (ELLs) with refugees (Brown, Miller & Mitchell, 2006). Teachers ought to set aside a deficit perspective toward these students and consider the moral opportunity before them. This necessary professional growth will enable them to evolve with the rapidly changing educational landscape in schools. All names are pseudonyms.

### **Literature Review**

From November 2015 to January 2017, Canada accepted 40,081 refugees from Syria alone (Zilio, 2016 Mar 8; #Welcome Refugees, 2017). In the previous year, 20,000 refugees of war, oppression and persecution came from Iraq, Eritrea, Iran, the Congo, Somalia, Syria and Afghanistan, (Facts and Figures 2015, 2016; Schwartz, 2015 Oct. 4). Canada is second to the USA who had received 150,875 requests, but took in 69,933, which was the largest acceptance rate and 60% of the global total in 2015 (UNHCR, 2015 Global Trends, 2016 June 20). Countries in the world with more extensive recent experience, such as Sweden, Germany and Australia, have provided much needed research findings on how refugees struggle to adjust to their new environments.

Refugees differ from "economic immigrants" in distinctive ways. Immigrants may also experience racism, cultural dissonance and adjustment difficulties, but the comparison ends there. In one study done in Sweden on the mental health of resettled Iraqi refugees, the most common issues were post-traumatic stress disorder (PTSD) at 12%, and higher in females, as well as depression and anxiety (Lindencrona et al, 2008; Beiser et al, 2011). Exposure to severe pre-immigration trauma such as torture explains a higher prevalence of mental disorder among refugees, but also resettlement stress contributes to its persistence and even increase. What this means for teachers in

Canada is that they need to understand that once refugees arrive, the issues do not disappear; in fact, they could worsen. The families may struggle with social and economic factors in their new country, as well as threats, discrimination, loss of status and alienation. In their new schools, refugee students may lack the ability to focus, can be aggressive and have anger management difficulties. They may be leaders in social situations which may involve bullying. Troubled behavior, such as explosive tempers, fighting, challenging authority and immature behavior can indicate trauma (Kovinthan, 2016; Strekalova & Hoot, 2008).

A lack of basic education, including no literacy, even in the refugee's first language, poses substantial challenges for many teachers. Preliterate students cannot be taught in the same manner as ELLs (Brown et al, 2006; Fantino & Colak, 2001). At the extreme, with some students, foundational capabilities such as pencil holding and book handling cannot be taken for granted (Dooley, 2009). Under optimal conditions, on average it takes 3-5 years to achieve conversational fluency and 4-7 years to acquire academic literacy in another language. For some disadvantaged students, it may take much longer, sometimes as much as 10+ years (Brown, et al, 2006; Garcia, 2000).

Many Western countries' identities have been forged by accepting refugees and offering a safe haven for the "huddled masses yearning to breathe free" (Lazarus, 1883, on Statue of Liberty). Since 9/11, however, measures for greater national safety have gained wider tolerance. Teachers in many nations have found themselves at the centre of an ethical dilemma. Australian educators, for example, have asked, "What is the relationship between a vibrant and socially just society and educational policy?" (Hattam & Every, 2010, p.409). For the public, are freedom and security viewed as mutually exclusive? In Europe and the United States, a new shift to the right in reaction to migration and terrorism has undoubtedly stimulated strong debate on both sides of the refugee issue in 2017, perhaps providing a necessary opportunity for revisiting questions of national identity and values that attempt to grasp the complexity of the situation and, ideally, respecting, enabling and protecting everyone. The elephant in the "school", so to speak, is that educators cannot teach refugees without teaching all the students about attitudes toward refugees.

Some teachers remain unaware that racism, discrimination and exclusion can also originate from individual dispositions and attitudes (Kovinthan, 2016). The educators in the school will have to unite to advocate for the refugees and ensure they have access to an education that will "unlock their inherent potential" which in turn improves their chances of success in society (Tilleczek, 2008).

## **Methodology**

This study follows narrative inquiry as a research method and specifically draws on narratives and interviews. Bruner (1986) states that through narrative we make sense of our lives by interpreting our experiences and extracting new knowledge and understanding from them. Teacher narratives provide a framework for constructing professional knowledge and can be useful for exploring theories, values and beliefs ((Beattie, 2000; Connelly and Clandinin, 1990; Knowles, Cole & Presswood, 1994). It is

through “caring relations” that genuine dialogue and empathy can take place so that individuals can know themselves better and begin to really see “others”, even though they may be different from themselves (Noddings, 1984). Through reflective practice, teachers come to understand they are bound up in moral, ethical and socially responsible endeavors.

Narrative has long been valued as a tool of learning in the arts due to its more holistic qualities where it holds the possibility of joining the cognitive to the affective. Furthermore, visual art, music, dance, drama, poetry and story appeal to the senses and may be capable of communicating ideas and feelings beyond mere verbal expression (Eisner, 1991; Conle, 2000; Witherall and Noddings, 1991). The next section presents the narratives of teachers who have worked with refugees for several years.

One secondary school teacher (SST) and one elementary school teacher (EST) provided their narratives in interviews in February and March 2017.

SST: This year we received 20 new students from Syria. The year before, it was mostly Somalians, Sudanese and Ethiopians. From the Welcome Center, sometimes they bring them into the school when no one is here, to give them an idea of the bells and to show them where things are. The fathers sometimes come with their kids but we never see the mothers.

EST: The majority of new arrivals are Syrian and pre-literate, while the Iraqis can read and write in Arabic. They all came here from camps where they may have had some interrupted schooling.

SST: Most of the new Syrian families had to sell everything and leave their rural areas where they were farming. In towns, the boys became street kids, hustling for money, trying to support their families by selling cigarettes, working in tea shops. They are really tough and had little parenting but are street smart. But the Iraqis, they have witnessed things.

EST: Some families are decimated. No men, single moms. I have a dad who is raising his son alone. He has no parenting skills. The boy is bright, but sad, with wild mood swings. Many parents stay distant from the school so we don't know how they are coping or to what degree the whole family has PTSD. Mothers impose strict traditions and don't leave the house. Some parents are just happy to be here in Canada where it is so quiet and safe, and the fathers feel their sons will be okay, and that other families in the neighborhood will look after the kids, keep them out of trouble. I thought, that's not the way it is here.

SST: Teachers are afraid of their behavior. We try only to have 1-2 kids per class. In Physical Education, they are climbing on the bleachers, yelling. They are so vulgar, and have such short fuses that none of the other local kids like them. They constantly fight between themselves, flip over tables in the classroom. But they are also great actors. Sometimes it's just a show.

EST: Progress depends on the individual. In my class, I have two sisters, around 11 years old, who were sponsored by their older brother who came earlier. One is lively, engaged in school and the life of the party. The other is still pre-literate and withdrawn. She could have a learning disability, but I think there is some kind of trauma there. She doesn't talk.

SST: The police come to the school to talk to the kids, but even better is a former Hells Angels guy who talks tough to them about drugs and gangs. He takes them on field trips and to football games. I've seen some of my former students three years after graduation who are in the paper, arrested for drug trafficking. They were really nice boys in school.

Some of the high school boys are 18 and 19 and want to work. They don't see the point in going to school. Local businesses have offered jobs to help the Syrian refugees, like working in greenhouses to take advantage of their farming knowledge. Their parents need money, and many boys have started working 4-9 p.m. after school. They *want* to work.

The emphasis, all the more, is on the difference an understanding and prepared teacher can make in the lives of these students. The next section will offer a strong starting point that may effectively address the perceived disadvantage of pre-literacy and trauma in freshly arrived refugee youth.

### **A pathway through the arts**

Given the complexity in refugee students' lives, educators should focus on the two most immediate obstacles: acquiring English language skills and creating an environment to reduce trauma. The arts are a universal language, and because they join the affective to the cognitive, they offer starting points to basic literacy as well as to expression of emotion in manageable and personal forms.

Engaging in the arts seem more like play and, and while researchers have long known the value of play in allowing children a space to work out emotional and intellectual conflicts in their lives, now it is seen as having the power to heal (St. Thomas & Johnson, 2007). Through play, children can enter their inner selves and access voices of imagination to explore other versions of stories or events and create new outcomes with new meanings. This is vital to mental health and healing. This is achieved through discovering the deeper meanings in tragedies.

St. Thomas and Johnson state, "Imagination and stories are key forces in opening pathways toward integrating and organizing the complex realities of trauma" (2007, p.22). Students can share their stories through non-verbal means like dance, drama, visual art as well; art can be considered the "literacy of the heart" (Eisner, 1991, 2002).

Van der Kolk (2014), former director of the Boston Center on PTSD research, discovered talking about trauma may not lead to recovery. "Fundamentally, words cannot integrate the disorganized sensations and action patterns that form the core

imprint of the trauma in the brain.... They become stuck... Trauma stays in the non-verbal, non conscious sub cortical regions of the brain.”

Engaging with art, and specifically stories, join the left (creative) and right (rational) sides of the brain to allow a person to derive coherent and logical meaning. All learning has an aesthetic quality, and in re-presenting stories artfully, children recreate reality in a manner that pleases them (St. Thomas & Johnson, 2007).

St. Thomas and Johnson (2007) provide steps for teachers:

The primary need is to establish trust and safety. Once trust is in place, children need to be supported to be able to be spontaneous {both as themselves and in arts}...and move toward disclosure... Support looks like honesty, acceptance, safety and openness. Trust must be earned. The relationship is built on the on-going belief that healing is instinctive and the path to wellness is not outer-directed but inner-generated (p 22).

Conflict is necessary for development to occur... The more creative expression and verbal content become visible, the more the process allows for past, present and future to be visited and openly interwoven... and integrated... When children can “let go”, {they are} better able to be in the moment and less blocked by primary or secondary defenses, such as denial or avoidance (p. 23).

Change is observable... {the child has} a positive look at the future... But it is not even development, much like Snakes and Ladders... {But} there is the potential for transformation (p.24).

In South Sudan research, music in particular seemed to reduce the tension in students with PTSD, and teachers were encouraged to choose songs with preferably with neutral content or happier lyrics and danceable beats that made participation in movement natural. Also in South Sudan, humanitarian organizations asked students to draw objects that related to different stages of their treatment, for example, draw-myself, draw-my-life, draw-my-lovely-day (Uguak, 2010). This corresponds to what teachers (participating in this paper) do in their schools that enables them to discuss the artwork with students and begin their literacy by writing vocabulary words of objects in the margins of the pictures. Early on, music, visual arts and dance offer non-verbal means of participation; as students acquire more language skills for reading, writing and speaking, then teachers may integrate other concepts and vocabulary into stories, such as cross-cultural fables, fairy tales and myths as another way into a wider variety of literacy activities.

Lorna (author) shares her arts-based approach after a struggle with a student:

My student was full of rage. She disrupted class discussions often with angry accusations using words like insensitive, superficial, mundane, unimaginative, and useless. Aleeha was a teenager when she fled the war torn home country she loved. Her discord in the class prevented a natural rhythm of group collaboration. Aleeha

isolated herself from her peers and confrontational attacks on instructors threatened the quality of her educational experience.

I spoke to Aleeha privately about noticing the natural give and take in rhythms of class discussion. Concentrating on her words 'useless' and 'unimaginative', I invited Aleeha to choose a platform for a class project that could perhaps provide aesthetic contexts for understanding the opposite meanings using words like 'purpose' and 'imagination' for visceral as well intellectual determination of what in thought she was reaching toward, resiliency. Aleeha chose an arts venue, and a large montage of artifacts, actual and sculpted representations of her life history. She proudly shared in collaborative, dynamic discussions with her peers accompanied by poetry and prose about her past trauma interpreted through 'purpose' and 'imagination' for social justice issues.

For further steps to determined resiliency and as part of my responsibility as educator of multi-literacies and serious reflective practitioner, I invited Aleeha to reinterpret her poetic prose around her cultural history montage and impacts of classroom discussions and co-author with me an ethnographic narrative about being in a country at war and fleeing war.

The following are a selection of other art projects.

Online stories and videos have been created by Immigration Services Society of British Columbia (ISSofBC) as part of their Refugee Mythbusters Campaign, and posted to inform educators and the public about refugees. In one, Hedley and Khalid (n.d.) ask elementary school refugees to paint pictures of home and discuss things they remember. An anthology in paint and words are beautifully presented on the district website for parents and others to view.

In her video, Schur (Galino, narrated by Schur, 2014) discusses the challenges that can be met by the Expressive Arts program that go into the schools, and therapists share their experiences along with the children's artwork and words. Short dramatic scenes enacted by the children are shown as well.

In a summer project in Georgia, USA, led by educator Emert (2013), digital storytelling was used in a literacy program with 70 high school boys who had come from Tanzania, Ghana, Somalia, Ethiopia, Eritrea and other countries. As a beginning point, Lyon's poem, "Where I'm From" is read and the boys used critical and creative thinking to manipulate texts and technologies to explore their own origins and experiences. This arts-based pedagogy expected rigorous self-assessment, full participation and constant clarification to elicit meaning in the finished products. Taken together, the project played a significant role in advancing the boys' literacy, academic achievement and sense of empowerment.

In many cultures, quilts, jewelry making and decorative arts appeal to students who may be able to keep and wear their work. In "Stories of the Cloth", Garlock (2016) recounts how female survivors of violence from Chile appeared to be stitching stories of events

into beautiful representations on textiles, but in reality they were trying to stitch back the fabric of their lives, support each other and heal traumas in quiet and dignified ways. As with many of the arts activities mentioned above, the therapeutic talk that occurs during the projects is the goal and the artwork is the physical representation of a stage of increasing mental health, integration and letting go.

In all classes, teachers do need to prepare well for each lesson, taking care to foresee any triggers that may cause students to be re-traumatized. This may be something as simple as previewing or pre-reading film or text as seen through the lens of these youth. When students choose to reveal personal experiences and find it therapeutic, the teacher can play an important role in healing and acceptance, even helping them toward forgiveness (Medley, 2012).

### **Discussion**

On first exposure to narratives of educators who work with new refugees, it is not uncommon to experience cultural inadequacy. Small cultural “stops” occur during the day for teachers, for example, seeing a child crying under a table and the other students explaining that another student startled him, or there was a sudden loud noise, an airplane, and the teacher later finding out that the child had witnessed violence and death. Some things are too terrible to imagine, and yet refugee children have lived far worse realities.

MacDonald (2015) reports on the troubled relationship between refugees and their English literacy learning and the messages they broadcast around the value of education. English is marketed as the language of economic power and advancement, a myth for many, yet it also has the potential for speaking and writing about injustices to a world audience. Educators must remember the importance of allowing refugees to speak back, to respect their experiences with the powerful they see all around them, and resist the stories that simplify or idealize resettlement and the opportunities that flow from literacy. Equally important to the forces that work on refugees are the impact the refugees will have on the people who teach them. Transformation occurs in both directions.

### **Conclusions**

To help their students overcome steep hurdles, teachers must not take a deficit attitude, but rather see their background experiences as an asset for learning. Classrooms should be a place where students feel safe, accepted, and included, and have their cultural knowledge play a role in building their educational competency and future lives (Kirova, 2010).

Teachers must take pains to ensure the school and their classrooms are welcoming to students and their parents, and anticipate the barriers they face due to traumatic experiences. (MacNevin, 2012). Beyond adapting ELL strategies, teachers can differentiate teaching with culture in mind.

The authors find it troublesome that school narratives about refugees are centered mainly on dealing with boys. Due to safety concerns, it is not surprising that attending to explosive conditions and physical violence should dominate, especially when the police are involved. But much more consideration needs to be given to refugee girls and their special needs.

In the literature, researchers emphasize the paucity of teacher preparation and professional development around best practices for refugee students. The authors of this paper fully agree and recommend instruction begin in teacher education programs at universities. In addition, more school counselors and psychologists who specialize in trauma ought to be on site or generally available to care for these students' mental health and well-being.

Tasked this year with the job of welcoming thousands of new arrivals scheduled to come from Syria alone, Canadian provinces and school districts will need to re-think their strategies for supporting refugees, and make space in their calendars for time and funding for advancing teacher knowledge for the betterment of our most vulnerable students.

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# Evaluating Teachers' Opinions on Learning Difficulties of Stuttering Primary Students in Terms of Initial Reading and Writing

Hatice Gokdag<sup>1</sup>, Hakan Sari<sup>2</sup> and Mustafa Safran<sup>3</sup>

Necmettin Erbakan University, Turkey

<sup>1</sup>gokdaghatice@hotmail.com

<sup>2</sup>hakansari@gmail.com

Gazi University, Turkey

<sup>3</sup>safran1958@gmail.com

## Abstract

Stuttering, which is flow of speech malfunctions, is disrupted by repetitions of sounds, syllables, words and phrases as prolongations and blocks. Stuttering which is regarded as speech disorder is not fluency disorder which can be observed only in speech. Psycho-social developments of stuttering students are affected with fluency disorder in speech. In addition, the fluency disorder has negative effects on academic developments and success of stuttering students in schools. There are not number of researches regarding learning difficulties on initial reading and writing skills of stuttering primary students. Therefore, the aim of this study is to find out learning difficulties on early reading and writing skills of students who have stuttering in primary schools in Konya province, in Turkey. In this research, Semi-Structured Interview Method was used, which is one of the qualitative research methods. Twenty eight teachers participated in this study for whom Semi-Structured Interview Form was adapted to be able to collect the data. The form was developed by the researchers and the data collected via the form were analyzed with using 'Content Analysis Method'. The research findings raised from the data analysis are as follows: the students with stuttering participated in this research do not have difficulties about learning of initial reading and writing skills and comprehension of text reading but they have difficulties on writing about what they read and phonetics of the word they have learned. These students do not have any difference on initial reading and writing progress in comparison with reading and writing progress of students without stuttering in terms of learning duration of initial reading and writing skills.

**Keywords:** stuttering, teaching initial reading and writing skills, children who need special education, special educational needs in primary schools.

# Poetic Narrative Inquiry: Demonstrating Critical Reflection in Arts-based Cultures of Inclusive Learning

Lorna Ramsay<sup>1</sup> and Susan Barber<sup>2</sup>

Simon Fraser University, Canada

<sup>1</sup>lorna\_ramsay@yahoo.com

<sup>2</sup>Susan\_Barber@sfu.ca

## Abstract

### There Must Be Beauty

A window reflection of a woman with and a boy appears blurred in morning grayness. The woman sits close to the boy in a relaxed pose, legs crossed and bent to fit under a child-sized wooden table, left elbow resting on her chin. She appears calm as she slowly moves her right hand to push blond curls from her eyes. I realize the person is me and I was watching with my poet's eyes. I look toward the boy I sit with every school morning before others arrive. He must be the first to arrive and he must draw the same picture. He is six-year-old and is on the autistic spectrum. I will name him Dylan. As I do before I begin collecting data for my journal articles, I begin with poetry.

You stare into your drawing in awe  
Perhaps it is something you saw  
and hope to see again memory-treasured judgment reframed as  
measured beauty *always the same design*  
Lingering disinterest like Kant?  
restraint sharp, deliberate strokes in a rhythm  
corporal rituals -some want to reTRAIN could give you pleasure ...  
realized repeatedly in your mind  
visualized in autism  
*The same design*

Dylan is one of many students I have taught who sees the world not as I see it. I want to make sense of my place in his world right now and I take in every moment as if ambience of sound and light might pass me by and might miss a chance to interpret Dylan's place in our shared environment.

I want to make sense of the pull between my well-informed teacher skills and my artist's sensitivities that are so ingrained in decisions making. To interpret beyond what is seen, Richmond muses is "... beyond the apparent to the real, beyond a part to a whole, beyond a truth to a more important truth" (2009, p. 8).

I understand the extent to which I will affect Dylan and I seek a balance in my approach to reflective practice in Taggart's process of being logical and making informed choices about my teaching and then assessing consequences of my decisions (2005). I return to poetry and now I find welcome interruptions with quotes from theorists.

Muscles shallow shoulders low and pensive

could be anyone's body hunched low on a varnish-stuck wooden bench  
Hand barely moving your wooden pencil sideways pressing graphite harshly into past  
stories ringed and pushed into your paper  
through grained irregular lines of seasoned oak  
rubbings of your intensive connecting narrative viscera of harvested, dried  
manufactured reformed living oak

Grumet, Curriculum theorist, feminist: "...source of light, like human  
knowledge....moves through time as well as space, and so clear seeing is burdened  
with all the limitations of human consciousness, always situated in spatial perspectives  
and temporal phases. Our work, no matter what its form, is not the seeing itself but a  
picture of the seeing" (1988,pp. 60-61).

Your body shoulders satisfaction of one deep inhalation of this moment  
at this child's wooden table at 8:55 AM on this day  
I listen deeply to what you might feel valid representation of your body's  
imaginings one careful naval architect *stroke after another*  
A picture in your seeing mind  
Your story emerges in the strength of your fascia protection in spaces of  
silence where conversation is performative, sensual, secure in my willingness to  
redefine listening, a type of exchange that

Bakhtin describes as "hidden dialogicality" where, "...each present, uttered word  
responds and reacts with its every fibre to the invisible speaker, points to something  
outside itself, beyond its own limits, to the unspoken words of another person"  
(1929/1984, p. 197).

You announce to a nearly empty classroom  
*Boats smell like wood*  
muscles taut, pressed solid sound perhaps in the scent of your present voice

Abram writes, "the body is a creative, shape-shifting entity....not to explain the world as  
we see it, but to give voice to the world  
from our experienced situation *within it*" (1996, p.47).

From open windows and doors  
do you hear children jetting words  
into salty ocean wind in slow accelerando against sea shell mobiles

Airplanes circle overhead soft, unreachable steam streams merge with softening  
resonances of your  
ebbing last word merging into overhead harmonies and a crow sharply chastises  
I sense your tension  
as you abruptly shift attention in a facial change from prospects of wonder to  
claims of fool's gold's beauty unrequited art, energies of perseverance static  
in build up of hesitation obsession to draw

Happé and Frith, Neuroscientists researchers on autism suggest Dylan's art is not for me not for anyone just for art's sake ( 2009)

like a soloist preparing to commit to matching pitch of our communal ensemble  
landscape Intonations

I sit patiently for gestures clues of what you feel  
my way into what you hear

but I am the musician waiting for cues conductor's nod  
my narrative, my  
ways of knowing my body responses as I shut out audience interplay

### **Ubuntu**

Desmond Tutu's message      *Ubuntu*  
*Being open available*  
*We are who we are*  
*because of others* (1999)

smell of trust

touch electric with a dusting of hope

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## Introducing Diversity Through an Organic Approach

John Albert<sup>1</sup>, Madelyn Anderson<sup>2</sup>, Morgan Anderson<sup>3</sup>, Devon Austin<sup>4</sup>, Marissa Barrett<sup>5</sup>, Stephen Benedik<sup>6</sup>, Alice Bewley<sup>7</sup>, Kayla Brown<sup>8</sup>, Joel Caraway<sup>9</sup>, Nicole Das<sup>10</sup>, Garrett Denton<sup>11</sup>, Peyton Duffield<sup>12</sup>, Ali Fawaz<sup>13</sup>, Jonathan Followell<sup>14</sup>, Josuha Green<sup>15</sup>, Alec Hester<sup>16</sup>, Hana Kenny<sup>17</sup>, Lashawna Miller<sup>18</sup>, Natalie Milligan<sup>19</sup>, Shawna Smith<sup>20</sup>, Toby Stipp<sup>21</sup>, Jordan Trant<sup>22</sup>, Nicholas Vasquez<sup>23</sup>, Kathryn Waugh<sup>24</sup> and Irosha Nawarathne<sup>25</sup>

Lyon College, USA

<sup>1</sup>john.albert@lyon.edu

<sup>2</sup>madelyn.anderson@lyon.edu

<sup>3</sup>morgan.anderson@lyon.edu

<sup>4</sup>devon.austin@lyon.edu

<sup>5</sup>marissa.barrett@lyon.edu

<sup>6</sup>stephen.benedik@lyon.edu

<sup>7</sup>alice.bewley@lyon.edu

<sup>8</sup>kayla.brown@lyon.edu

<sup>9</sup>joel.caraway@lyon.edu

<sup>10</sup>nicole.das@lyon.edu

<sup>11</sup>garrett.denton@lyon.edu

<sup>12</sup>peyton.duffield@lyon.edu

<sup>13</sup>ali.fawaz@lyon.edu

<sup>14</sup>jonathan.followell@lyon.edu

<sup>15</sup>joshua.green@lyon.edu

<sup>16</sup>alec.hester@lyon.edu

<sup>17</sup>hana.kenny@lyon.edu

<sup>18</sup>lashawna.hanes@lyon.edu

<sup>19</sup>natalie.milligan@lyon.edu

<sup>20</sup>shawna.smith@lyon.edu

<sup>21</sup>toby.stipp@lyon.edu

<sup>22</sup>jordan.trant@lyon.edu

<sup>23</sup>nicholas.vasquez@lyon.edu

<sup>24</sup>kathryn.waugh@lyon.edu

<sup>25</sup>irosha.nawarathne@lyon.edu

### Abstract

Traditional chemistry classroom only allows little room for inclusion. However, modern day instructors recognize that inclusion is a key aspect of learning (Nelson Liard, 2014). Therefore, despite the discipline, instructors work with the students to make them feel safe, supported, and encouraged to participate in creating and retaining knowledge. Even the “privileged” students, when they feel excluded from the full experience, struggle to learn as well as those who feel included (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). When we consider incorporating diversity to create an inclusive classroom, we must consider various factors such as student racial, ethnic, and cultural identities, prior knowledge, technical skills, creativity, financial stability, influences, boundaries, ambitions, and etc. (Brand & Glasson, 2004; Gay, 2013; Nelson Liard, 2014). Depending on the emphasis, one could create a stand-alone diversity course or dedicate class sessions on diversity (Lasorsa, 2002). When it is done as an isolated topic, the outcome may become a relegation of inclusive environment rather than a promotion. Therefore, the incorporation of diversity into the classroom needs to be done

very systematically; possibly by finding natural points of entry for diversity (Lasorsa, 2002). The latter approach will efficiently introduce diversity to the students.

What can instructors do to promote diversity in a chemistry classroom except for setting ground rules and promoting inclusive climate? If the class content blends in with the diversity concept, it is effortless to incorporate it to the class discussion. However, there is no straight forward way to bring up diversity topics in chemistry or in any other physical science classroom. The class content in such classrooms tends to lie heavily on technical concepts and the class time is precious. The time instructors could spend on unrelated topics, including diversity, is very limited.

Although it was a challenging task, emphasis on diversity and inclusion was instrumental in an introduction to organic chemistry course at Lyon College, which is located in rural Arkansas. The instructor was a female and an immigrant from Sri Lanka, while the class was predominantly white with equally distributed gender ratio. There were a few minority students in the classroom (Two American Indians, Hispanic American, Indian American, and a Middle Easterner). In order to make a comfortable teaching and learning environment for everybody (create inclusive climate), the focus was given to the topic of appreciating diversity (Knight & Vargas, 2003).

Furthermore, expected learning outcomes of an organic chemistry course majorly include the improvement of students' creativity and problem solving skills and development of collaborative skills (team-work). It is known that diversity improves problem solving skills and creativity not only by assembling information from each individual in the diverse group, but also by simply interacting with diverse individuals forces every member of the group to prepare better, to anticipate alternative viewpoints, and to expect that reaching consensus will take effort (Blimling, 2001; Phillips, 2014; Smith et al., 1997). Consequently, importance of an inclusive climate is apparent in organic chemistry classes. However, introduction of diversity to the organic chemistry class had to be done in a very authentic way using an ORGANIC (less self-conscious) approach that stimulated student interest in the topic without initiating any uneasiness.

The most natural approach to bring up the topic of diversity without deviating from the class content was by initiating a conversation about the diversity of organic molecules. Organic chemistry is the chemistry of carbon which is the chemical basis of life (Bernal, 1951). Diverse organic molecules are formed due to the ability of carbon form bonds with other carbon atoms, hydrogens, and heteroatoms. The slightest changes in the frame-work or the molecular geometry of organic molecules lead to significant variations in the chemical, physical, or biological properties of those molecules (Liang & Fang, 2006; Speck-Planche, Tullius Scotti, & de Paulo-Emerenciano, 2010). In the context of diversity of organic molecules, collaboration of carbon with other carbons and non-carbon atoms in creating diversity, and the various uses of resulted diverse organic molecules were discussed. Students were encouraged to demonstrate their perspectives on the significance of an inclusive society with respect to the diverse organic molecules as an extra-credit assignment (only 0.01% of total class grade). Student responses to this assignment were overwhelmingly positive and creative.

These responses will be analyzed in this presentation by comparing social and molecular diversity.

**Keywords:** diversity, inclusion, organic, molecules, heteroatoms

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# Improving Reading Comprehension of a Child With ASD: Implication of Thought Bubble Strategy

Seda Karayazi Ozsayin

University of South Florida, USA  
seda@mail.usf.edu

## Abstract

This study investigated the function of the thought bubble strategy on the reading comprehension skills of a child with ASD in a single subject reversal design. Individuals with ASD who are high functioning or have no intellectual disabilities face problems regarding improving social life and daily life skills. They also have difficulties in their school lives. Specifically, students with ASD have challenges in understanding the rules of reading and grammar, lack motivation, and lack attention span. In the early stages of reading development, to be able to learn reading, improvement in word recognition skills is the most significant issue for all children. This skill enables learners to read words and link texts accurately and fluently. In addition, when a child improves his or her reading skills, he or she will also develop skills in understanding the meaning of the context. Many students with ASD show deficits in word recognition, and reading comprehension is one of the most difficult area for them. Studies indicated that reading comprehension difficulties are more common in the individuals with ASD. Thus, reading comprehension is an important area to target in efforts to help children with ASD achieve academically. The purpose of the study was to examine the efficacy of the thought bubble strategy on increased reading comprehension skills of the child with ASD. The participant was 9-year old male. All the intervention session took place in the participant's home. Via this study, the participant's specific skills such as answering inferential and literal "wh" questions were also tested. The results of the study showed that the child with ASD made gains in reading comprehension skills by using the thought bubble strategy.

**Keywords:** reading comprehension, thought bubble, Autism Spectrum Disorder

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# **The Anatomy of Social Justice Education: A Framework for Educators Working With Non-dominant Group Students**

Bret Cormier

Missouri State University, USA  
bcormier@missouristate.edu

## **Statement of Purpose**

This study examined the impact that high expectations, creating a sense of urgency, and leadership had on the behavior, attitudes, values, and beliefs of principals in the development of strategies to address low academic and behavioral expectations that perpetuate the achievement gap. The study looked at the process of how a school is transformed from being a low-performing school with few appropriate functional systems to becoming an exemplary school that has numerous functional systems.

This paper presents the findings of a qualitative research study utilizing the data gathered from interviews with forty administrators from National Distinguished Title I Award school districts, elementary, middle, and high school campuses that were Title I, Part A status for the past three years; 40% or more of the student population was low-income; met Adequate Yearly Progress the past two years; achieved a campus rating of Exemplary last year; and achieved a campus rating of Exemplary or Recognized for the previous two years.

The study sought to examine the aspects of culture and climate on these campuses that contributed to student success. The results of the study showed that administrators had developed a set of practices that focused on providing students with an education that was largely influenced by developing a social justice focused mission.

Schools are more diverse today than they have been since the early 1900s, when the flood of immigrants entered the U.S. from Southern, Central, and Eastern Europe. In the 30 year period between 1973 and 2004, the percentage of students of color in U.S. public schools increased from 22 to 43 percent. If this trend continues, students of color will equal or exceed the percentage of White students in public schools in the next two decades. Students of color already exceed the number of White students in six states: California, Hawaii, Louisiana, Mississippi, New Mexico, and Texas (Dillion, 2006).

The country's educational destiny is becoming more tied to the academic status and achievement of these students, many of whom are structurally excluded and marginalized within our society and schools. The scores of Asian and White students are above the Organization for Economic Cooperation and Development (OECD) average in each subject area. However when scores of African American and Latino students are added, the U.S. average falls to the bottom of the tier of rankings. It is critical to the success of the country that these students are successful.

Most U.S. prison inmates are high school dropouts, and many are functionally illiterate and have learning disabilities. The nation's prison population is increasing and states'

prison budgets are growing almost three times faster than education budgets. The U.S. has 5% of the world's population and 25% of its prison population. 2.4 million adults are in prisons and jails across the U.S.—or 1% of the population or 1 out of 100 Americans reside behind bars (Pew Research on the States 2008). \$68 billion a year spent on federal prison as well as \$200 billion nation- wide is spent on prison.

Campus and district leadership must address its employees' attitudes, values, and beliefs, many of which are supported, justified, and rationalized by deficit-thinking models. To accomplish this rethinking and restructuring of schools requires strong, focused, insightful, skilled leadership. There is significant research that indicates that there is a positive relationship between leadership and student achievement (McKenzie & Scheurich, 2004; Scheurich, 2002; Cuban, L., Sachs, J. & Sachs, R., 2001; Leithwood & Jantzi, 2000; Riehl, 2000; Hallinger, & Heck, 1998). That positive relationship between leadership and student achievement must begin with the superintendent and the board of trustees of the school district. There is a virtual absence of reported data on how district leaders--particularly the superintendent--successfully engage their organizations in fundamental reforms (Johnson, 1996). Despite the pivotal role the superintendent plays in interpreting, leveraging, and implementing reform, little attention has been directed to the influence of district leadership, in particular that of the superintendent (Adams & Kirst, 1999; Holdaway & Genge, 1995; Johnson, 1996; Leithwood, 1995) in creating a high-achieving school district. Rather, concentration upon the local school site and the principal's leadership dominates the research (Cuban, 1984; Leithwood, 1995).

The mission and the vision statement of the school district must reflect the goal of addressing solutions for what Valencia (1997) calls "the popular 'at-risk' construct, now entrenched in educational circles, which view poor and working class children and their families (typically of color) as predominantly responsible for school failure, while frequently holding structural inequality blameless" (xi). This theory does an excellent job of outlining a model that is still prevalent in education even though it has had limited success. Then student low performance reinforces deficit views of these children and their families (Valencia, 1997).

### **Theoretical Framework**

The data gathered in this study was considered through the lens of the deficit-thinking paradigm. According to Valencia (1997), deficit-thinking assumes that students who fail in school do so because of alleged internal deficiencies (such as cognitive and/or motivational limitations). It also tends to view poor and working class children and their families (typically children and families of color) as predominately responsible for school failure (Valencia, 1997).

As stated earlier, the deficit-thinking paradigm was used to provide an understanding of the attitudes, values, beliefs, behaviors, and professional practice of teachers which impact the performance of students. The deficit-thinking paradigm has not been used to analyze the behavior of educators in this context before. The deficit-thinking paradigm has six different prongs: (Valencia, 1997; Menchaca, 1997): blaming the victim; a form

of oppression; a model of educability; Heterodoxy and Orthodoxy; a culture of poverty; and cultural and accumulated environmental deficits.

### **Methods & Data**

The approach to this study was a qualitative research. This approach was guided by the guidelines provided by Merriam (1998 & 2002), Glesne (1998), Denzin and Lincoln (1998), and Creswell (1998). This methodology provides the means to explore the interactions between students and teachers on these campuses. The rich nature of the ethnographic data enabled us to observe the micropolitical interfaces and negotiations over time.

This was a case study, which is an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community. The case is a bounded, integrated system (Stake, 1995; Merriam, 1998). By concentrating upon a single phenomenon or case, this approach seeks to describe the phenomenon in depth. Since it is the unit of analysis that determines whether a study is a case study, other types of studies can be combined with the case study.

The administrators were selected from multiple districts across the United States from elementary, middle, high schools, as well as central offices. The selection of the interview subjects was done purposefully, not randomly; that is, these particular students exhibited characteristics of interest to the researcher (Merriam, 2002). The administrators were interviewed on three separate occasions. The researcher used open-ended and probing questions to provide the participants the opportunity to fully express themselves. These interviews were audio-taped with two tape recorders and notes were taken during each interview. A journal was utilized to record all relevant events discovered during the study.

### **Results**

The interviews revealed that the administrators that even though they led at various levels, in different parts of the country, and faced different external and internal stakeholders, there was a certain symmetry to the responses to the challenges of educating students who are perceived as harder to educate.

A critical component of these administrators rejecting the deficit-thinking paradigm and embracing social justice is stating that your students--the clients that you serve--are the most precious commodity that you have. This is demonstrated through having the expectation for principals and teachers that they will serve their populations. Because those that can't serve their population of students know that they will lose the opportunity to do so. Those increased expectations create the sense of urgency needed to close the achievement gap as well as impact the material conditions of students' lives.

The question I really wanted to answer was, why were these administrators successful where so many other leaders have failed? I also wanted to know what leadership traits, behaviors, and strategies that they possessed that allowed them to overcome the

deficit-thinking paradigm. The administrators' expectations were very clear. They believe children can learn and they expect their teachers to believe it too. A structured program is central to the success of these students.

A pattern emerged throughout this research regarding the importance of quality leadership, the traits of successful school leaders for students of color and poverty, and the importance of defeating deficit-thinking. These successful schools shared obvious traits: the values leadership espoused were evident throughout the building; leadership advocated a no excuses attitude; data drove decision-making; relationships framed everything else; all had strong literacy and numeracy programs; and above all, the campuses all embraced a competitive attitude.

### **Scholarly Significance of the Study**

Despite all of the focus, research, and resources aimed at solving the achievement gap, its presence remains. Clearly, this is the largest problem we face in the 21<sup>st</sup> century. Deficit-thinking has long been used to explain away the achievement gap and remove the responsibility from the system and the educators within in it. Singleton and Linton (2006) further explain that when educators place the blame outwardly, they avoid "difficult self-assessment and [taking] responsibility" (5). However, the existence of schools consistently successful with students typically seen as "hard to educate" calls that entire line of thinking into question. There must be a shift in the questions we ask. Rather than asking "why can't these students learn?" we must ask "why can't we teach these students?"

# Quality Online Learning and Its Impact on Students With Disabilities

Michele Forbes<sup>1</sup> and Johanna Lasonen<sup>2</sup>

University of South Florida, USA

<sup>1</sup>mforbes@mail.usf.edu

<sup>2</sup>lasonen@usf.edu

## Abstract

The presence of online learning as a viable educational option remains in question, regardless of recent advances. Many within society continue to inquire as to the quality of such a delivery method, as well as the advantages realized within this learning environment over more traditional settings. Of specific interest, would special populations such as students with disabilities benefit from participating within this environment? To what extent can the quality of learning be assured concerning the cultures of diverse students? This paper endeavors to provide a basic overview regarding the use of the Universal Design for Learning (UDL) in an attempt to guarantee quality and equality for all students engaged in online learning, no matter where they are based of their cultural and other diversity. Furthermore, the benefits to students with disabilities in this environment will be examined. Overall, it is the intent of the authors to provide a deeper understanding of the uses, implementation, and advantages of this educational delivery method with special regard to students with disabilities.

**Keywords:** online learning, Universal Design for Learning, students with disabilities, special populations, cultural diversity

# Developing the Effectiveness of Inclusive Teacher Education for Special Educational Needs and Inclusive Practice

Deborah Robinson

University of Derby, United Kingdom  
d.robinson3@derby.ac.uk

## Abstract

This paper reports on the findings of a research study which sought to identify the conditions, processes and activities underpinning *effective* inclusive teacher education. The study took forward what was currently known (or hypothesised) and from this built a pedagogic model (in the form of inclusive action research) that was applied in a partnership school during the practicum period among 22 participants (preservice teachers, experienced teachers and teaching assistants) to support the professional development of all involved. The findings support the claim that socially situated, research oriented, reflexive, collaborative approaches to developing inclusive practice are important elements in an effectual programme. They also cast light on the conceptual and practical challenges involved in being inclusive and on the impact of external cultures on the professional identities and actions of practitioners. This paper takes the position that de-intellectualised, competence based 'on the job training' models of teacher education will not be effective in preparing teachers for the deep challenges involved in becoming and being a more inclusive practitioner.

**Key words:** Inclusion, teacher education, special needs, disability

## The current context for inclusive teacher education

That inclusive education is a priority for development has been confirmed in official European and Global forums (OECD, 2010; Council of the European Union, 2010; Council of the European Union, 2009; European Parliament, 2008; Commission of the European Communities, 2007). Initial Teacher Education (ITE) (also known as preservice education) and Continuing Professional Development (CPD) is often regarded as the decisive factor in developing a more inclusive education system (Forlin, 2010; Florian and Rouse, 2009; Ainscow et al., 2006; Golder et al., 2005). There is recognition that 'the challenges faced by the teaching profession are increasing as educational environments become more complex and heterogeneous' (European Parliament, 2008, p.2). However, there is also widespread evidence that teacher education is falling short in securing sufficient confidence, skill and preparedness for diverse learners. For example, the outcomes of the first Teaching and Learning International Survey (TALIS) by the OECD (2009) revealed that surveyed teachers across 23 countries did not feel well prepared to respond to the challenge of diverse learners. The vast majority reported that they had significant development needs in teaching learners with special educational needs and disabilities (SEND), with a third identifying this as an urgent development need. The OECD survey of teacher development for inclusion (OECD, 2010) found that though 96% of student teachers and 65% of teachers reported that diversity issues (including SEND) were covered in their ITE programmes in some form, 47% of student teachers and 66% of teachers

judged that current teacher education was offering little in the form of effective preparation. Such loss of transfer from input to feelings of preparedness is perplexing and suggests that contemporary models of teacher education may be ineffectual, even when giving attention to diversity issues. Hence, it is important to identify those principles and practices that underpin effective approaches.

### **Reforming partnership for effective inclusive teacher education**

Across the literature, it is widely proposed that the role of ITE is to prepare critical activists who can deconstruct exclusive practices as they enter their careers (Forlin, 2010; Rouse, 2010; Slee, 2010; Moran, 2009; McIntyre, 2009; Florian, 2007; Pearson, 2007). It is important to understand how challenging a project this is for beginning teachers. As an illustration of this, Cook (2007) demonstrates the powerful influence of mentors' beliefs and practices on student teachers and Stoddard et al. (2006) found that on entering a placement or a first post, beginning teachers were likely to adopt the instructional behaviours of their mentors or use behaviours that arose from their own memories of schooling. The relative impact of the alternatives offered by university was poor in relation to the influence of dominant (and arguably, traditional) practices in schools. Breaking the circle of traditionality (Korthagen et al., 2006) is widely regarded to be necessary if inclusion is to be forwarded but it is recognised that this is difficult to achieve through traditional, fragmented, theory into practice models of teacher education. In England, McIntyre (2009) seems exceptional in offering a potential solution to this problem with specific reference to *inclusion* and *partnership*. McIntyre is distinctive in reframing partnership as a form of collaborative *research and development*. Schools and universities might develop inclusive practices through drawing on equal but different forms of expertise. Inclusive teacher education then is also a question of continuing professional development (CPD). McIntyre (2009) notes that progress in inclusive ITE will be thwarted if there is not *synchronous* development in school given that it might involve the deconstruction of tradition and of the status quo.

### **Effective models of inclusive teacher education**

The study described in this paper sought to take the model proposed by McIntyre (2009) forward and synthesise it with what is currently known (or hypothesised) about the principles and practices that might underpin effective inclusive teacher education in the wider international literature. The aim was to draw on this to build, apply and critique a pedagogic framework that could be operated within the context of a school placement so as to identify those aspects that were effectual. The informing principles and practices are summarised in Table 1.

### **Methodology**

Founded on McIntyre (2009) and broader evidence and hypotheses emerging from the literature (see Table 1), the study involved 22 participants (preservice teachers, teachers and teaching assistants, a research facilitator/university tutor) and used *inclusive action research* (O'Hanlon, 2003) as a means of structuring the collaborative activities of the participating group over a period of 22 months. This approach adopts the principles common to other critical-theoretical action research but centres its activity on promulgating inclusive practice through adopting democratic, just and equal forms of

professional collaboration. Hence, it emulated the structured, systematic and collegiate model proposed by the literature whilst being situated within the social justice paradigm. It took place in one of the largest primary schools in England, well regarded locally for its commitment to inclusive education. This school had worked in partnership with the university in its teacher education programmes for ten years, hosting several student teachers every year for placement experiences. Given concerns about the limited transferability of action research (Waterman et al., 2001; Jarvis, 1991) additional methods were employed. These included a field-work journal (for the collection of incidental data outside the specific project actions), reflective conversations with the participants during and after the project and reflective summaries written by participants. These supported identification of the wider conditions, processes and activities that were relevant to the participants' professional development in inclusive practice.

**Table 1:** Principles and practices for effective inclusive teacher education

Principles/Practices	Sources
Working and learning within a collaborative and collegiate professional community	Argyropoulos and Nikolarazi, 2009; Florian and Rouse, 2009; McIntyre, 2009; Ainscow, 2007; Black-Hawkins et al., 2007; Ainscow et al., 2006
Adoption of a research orientation (engagement <i>with</i> and <i>in</i> research)	Beauchamp et al., 2013; Mincu, 2013; Argyropoulos and Nikolarazi, 2009; Florian and Rouse, 2009; McIntyre, 2009; Ainscow, 2007; Black-Hawkins et al., 2007; Ainscow et al., 2006
Networking ITE into CPD and fostering synchronous research informed clinical practice	McIntyre, 2009
Focussing on instructional techniques and outcomes for learners in an authentic context	Rodriguez, 2012; EADSNE, 2012; EADSNE, 2010; Gudjonsdottir et al., 2007; Kershner, 2007; Stoddard, 2006; Jobling et al., 2004
Carefully chosen and structured field experiences that scaffold development of mastery and self-efficacy	Darling-Hammond and Lieberman, 2012a; Chong, 2007; Lancaster and Bain, 2007; Molina, 2006; Sharma et al., 2006; Hopper and Stogre
Critical theoretical approaches; opportunities for reflexive work and deconstruction of dominant discourses (e.g. expertism*)	Forlin, 2010; Florian, 2009; Florian and Rouse, 2009; Pearson, 2009; Lambe and Bones, 2006; Stanovich and Jordan, 2002
Adopting a practice into theory approach and resisting a theory into practice model	Commission of the European Communities, 2008; Darling-Hammond and Richardson, 2009; Korthagen et al., 2006

\*See section 5

## Findings

Evidence arising from the study supports the claim that the principles and practices presented in Table 1 do underpin effective inclusive teacher education. Participants involved in the study (preservice teachers, teachers and teaching assistants) reported gains in self-efficacy, skill and understanding. These reports were corroborated by wider data (for example in that illustrating inclusive outcomes for children). More distinctively, the study offered strong support for the model of inclusive teacher education proposed by McIntyre (2009). In addition, light was cast on three important phenomena, all of which need to be understood when designing effective inclusive teacher education. Firstly, the *discourses of expertism* were confirmed to have a significant impact on the self-efficacy of preservice and experienced teachers. Arguably, 'expertism' constructs

Special Education as technical and specialist and relates the concept of 'need' to personal pathologies requiring prescription pedagogies outside the skills base of mainstream teachers. Frequent in the literature is the claim that such discourses strengthen divisive constructions of education. (Florian, 2010; Forlin, 2010; Rouse, 2010; Slee, 2010; Silverman, 2007). Arising from the study was evidence that when *expertism* was in abeyance, preservice teachers and experienced teachers were more likely to identify within themselves, the skills and knowledge needed for effective inclusive practice and hence to engage with it. The project provided regular opportunities for participants to deconstruct these discourses. This supports the view that a research-orientation with reflexive work can be a powerful means of scaffolding feelings of mastery and accomplishment through abating *expertism*.

Secondly, inclusive practice has a *dilemmatic and contradictory character*. For example, though the participants operated a strong anti-labelling position and a dislike of deficit discourses, they found this difficult to sustain (in any pure way) when the concept 'SEND' was at work. Where the concept 'inclusion' would trigger diversity discourses (which celebrate diversity and uniqueness), 'SEND' would trigger disparity discourses (where diversity is associated with pathologisation, differential treatment and different expectations). This presents challenges to teacher education given that 'SEND' is historically positioned as a disparity discourse. In England, disparity discourse is also embedded in official policy for ITE which assumes that competence depends on knowledge of specific types of disability and distinct approaches applicable to groups or categories of learners with the wider label of SEND (Teaching Agency, 2012; Ofsted, 2009). There was evidence that participants were challenged by *external cultures* that were at odds with their principles and which required of them practices that they believed were not inclusive (such as the need to use 'labels' to gain resources and support for a child). They were continually engaged in mediating these external cultures to safeguard their professional integrity and defend positive outcomes for learners. For preservice teachers, taking a strong and principled stance (for example in deliberately adopting capacity discourses) seemed to be important as a means of navigating this unsettled and contradictory political landscape. Thirdly, teaching assistants can make an important contribution to the professional development of student teachers in terms of their wellbeing and in terms of their learning. They should not be overlooked in this sense nor marginalised from the research and enquiry community of a partnership.

## **Conclusion**

This paper takes the position that inclusive teacher education must adopt a complex, multi-modal, collective, critical-theoretical, socially situated, research-oriented and partnership-oriented pedagogic model if it is to advance. It has provided an account of the principles and practices that underpin effective pedagogic frameworks. If reforms to ITE result in a culture of 'on the job' training that demotes research informed critical enquiry and reflexive work (as current policy seems to promote in England), practitioners may be neglected as they struggle to understand and resolve the dilemmas that arise in securing inclusive education for all. The result of this may be professional disengagement from the battle for a fairer system and a sustaining failure to serve the rights of those learners most vulnerable to exclusion.

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# Plática and Meditation in Central California Schools: Understanding the Use of Alternative Methods to Help At-risk Latino Students

Juan Carlos González<sup>1</sup>, Christina Luna<sup>2</sup>, Juan García-Castañón<sup>3</sup> and Jairo Lozano<sup>4</sup>

California State University, Fresno USA

<sup>1</sup>jcg@csufresno.edu

<sup>2</sup>christinal@csufresno.edu

Integral Community Solutions Institute, USA

<sup>3</sup>juang@csufresno.edu

Madera Unified School District, USA

<sup>4</sup>agent@mail.fresnostate.edu

## Introduction

Latinos, from recent immigrant to established Americans, have been known to experience issues of mental illness for decades (Escobar, Nervi, & Gara, 2000). Along with these mental health issues, Latino communities also lack access to mental health services (Cabassa, Zayas, & Hansen, 2006; Vega, Kolody, & Aguilar-Gaxiola, 2001). The prevalence of mental health issues and lack of services to address them, is as prevalent in Central California (Vega, Kolody, Aguilar-Gaxiola, Alderete, Catalano, & Caraveo-Anduaga, 1998), a region considered to have some of the poorest communities in the state and the nation. For these reasons, our study focuses on urban and rural Latino communities, and Latino youth that struggle in school. Our focus on Latino youth is because they comprise approximately 64% of the school population (California Dept. of Ed, 2015). In looking at these youth, the following research question is posed: *How are California's Central Valley Latino communities evolving/achieving wellness through the use of Latino-based prevention/ intervention health approaches in alternative high schools?* In answering this question, mixed-methods are utilized to understand youth resilience, and successful methods being used to help empower youth.

## Literature Review

In looking at the literature, two concepts related to the methods being used became the focus: *pláticas* and *atención plena* (meaning conversations and mindfulness). *Pláticas* as a practice that is grounded in the Latino indigenous wisdom tradition that goes back thousands of years. It is a form to transmit knowledge regarding well-being, mental wellness, psychological, and healing *trastornos* (emotional imbalances), and related themes addressed through familiar cultural formats such as *canciones* (songs), *dichos* (sayings), *cuentos* (stories), and *poesía* (poetry). *Pláticas* is a commonly used, culturally-appropriate, method used by Latino researchers and therapists to advance deep dialogue and understanding in Latinx group settings. Ayala, Herrera, Jimenez, and Lara (2006) define *pláticas* as intimate conversations. Guajardo and Guajardo (2006) define it as intellectual dialogue. *Pláticas* is used on research and counseling sessions in the Latina/o community to unbury and advance the community's intellectual and cultural knowledge, and share this knowledge throughout the community.

*Atención plena* (or mindfulness) is defined by Kabat-Zinn (2003) as, “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (p. 8). We use *atención plena*, progressive relaxation technique and guided meditation as shorter periods of five, ten or fifteen minutes in order to prepare participants to practice centering meditation (*meditación centrante*), which consists of a period of 20 minutes. *Atención plena* has not previously been evaluated and assessed in the Latino community. *Atención plena* has become mainstream with many of the approaches to psychological trauma in recent psychological and counseling applications for treating victims of trauma. *Atención plena* is also used by therapists in a culturally and linguistically appropriate manner.

These two concepts are central to the observations and data collected to understand alternative Latino-based methods, and their effect in helping troubled high school youth.

### **Methodology**

This project uses mixed-methods (Marshall & Rossman, 1999), employing both quantitative and qualitative data to answer the research question to understand our 48 participants at 3 high schools. In terms of the quantitative data, there are pre-/post- data measures that were collect. This helped determine student academic and health improvement over time. Schools have agreed to share records for our participants on: (a) attendance, (b) behavior, and (c) grades. In terms of the qualitative data, collected from all our participants and their families were: (a) a demographic questionnaire, and (b) a family history questionnaire, (c) participant observations, (d) focus groups, and (e) interviews.

Three high schools were selected for this research. These sites were selected for various reasons: (a) the therapists working at these sites have previously volunteered at Integral Community Solutions Institute (ICSI), and therefore have a professional relationship with the founder of ICSI who is leading that research effort; (b) the leadership (Vice Principal, Principal, and Superintendent) at these sites agreed to work with ICSI and the ICSI research team by offering needed data on all the research participants at their sites; (c) all the sites have youth that are predominantly Latina/o, which is our target population; and (d) therapists at all the sites practice *pláticas* and *atención plena*.

Quota and purposeful sampling were used to select participants. *Quota sampling* was used because it is important for budget and planning reasons to have a predetermined target of participants prior to entering the field to collect research (Airasian, Gay, & Mills, 2009). *Purposeful sampling* was used to assure that all students selected were Latino are benefiting from *pláticas* and/or *atención plena*. Therapists were also consulted to help select participants with the highest need based on having low attendance, undesired behavior, and a poor academic record prior to participating in *pláticas* and/or *atención plena*.

Data is being analyzed will NVIVO 11 (see QSR International, 2016), and analysis will be completed and ready to share in May at the time of the conference. NVIVO 11 is a software used for code-based qualitative analysis, and allows for analysis of multiple types of data. This software is used by researchers working with large and complex data sets, and is designed for researchers trying to make sense of complex data thorough exploration and rigorous management and analysis.

### **Preliminary Findings**

Data for findings in presently being analyzed, and the analysis will be completed in time for the May conference, *Global Conference on Education and Research*. Preliminary findings show that Latino students are showing signs of success, defined quantitatively by improved attendance, grades, and behavior. Because some of the schools selected are alternative high schools, success here is measured largely by the students' ability to re-integrate into their home high schools. In interviews with students, they noted how *pláticas* and *atención plena* helped them with stress and family life. Other positive comments were shared by students that participated in the *pláticas*, which had the purpose of allowing them the opportunity to have voice, and use that voice to express their problems and seek solutions. Both *pláticas* and *atención plena* helped Latino youth find alternate ways to address stress, anger, and violence.

What this research is finding is that implementing *pláticas* and *atención plena* practice in schools (beyond the three we are currently examining) will reduce student misbehavior as evidenced by a reduction in suspensions, expulsions, and increased school grades and attendance. Preliminary findings are also showing that students are improving on emotional intelligence and in the ways that they interact socially with their peers and teachers. Through the *atención plena* practice and personal development via *pláticas*, students are demonstrating improved self-control, self-esteem, and efficacy.

### **Early Conclusions**

It is no surprise that Central California is one of the most impoverished regions in the country. Across Central California, Latino students have also become the majority in K-12 and higher education. But, still, too many Latinos, particularly young males, end up in prison. The path to prison starts in our schools and our communities, where youth get exposed to gangs, drugs, and crime. As Latino researchers, the authors of this project have a vested interest in addressing these issues in our communities and schools. Through this research project, the researchers seek to find solutions that had help troubled Latino youth in schools. Presently, alternative schools for Latinos are not working, they are only serving as paths to our prisons. Through this project, and the use of *pláticas* and *atención plena*, this research projects aims to find these solutions.

We have anecdotal evidence of what works in serving troubled Latino youth in schools, and getting them on the path to academic success. But this project seeks to go beyond the anecdotal, and focus on the empirical evidence. The authors seeks to find what works and what does not work in the use of *pláticas* and *atención plena*. The early belief is that with these culturally-grounded practices, struggling Latino youth are offered an opportunity to serve society, and be positive contributors to society.

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# Perceptions of Special Education Pre-service Teachers for Collaboration with Families

Mehmet Ozturk<sup>1</sup> and Lutfi Ozturk<sup>2</sup>

University of South Florida, USA  
<sup>1</sup>ozturk@mail.usf.edu

University of York, United Kingdom  
<sup>2</sup>lutfi.ozturk@york.ac.uk

## Abstract

In this study, I explored the perceptions of pre-service teachers regarding collaboration with families based on their past experiences with their own families. I tried to find out how pre-service teachers' families/parental interactions affected their perceptions of collaboration. In this study, I had two participants who were special education undergraduate students a female student from level 2 (second semester in the program) and a male from level 5 (fifth semester in the program). There were three main topics in the study and the findings of the study represented in three parts. In the first part, I discussed what participants described about collaboration with families. Several themes emerged in this category, including differences of age and grade levels in collaboration, effective ways to collaborate, barriers and facilitators in collaboration, the importance of collaboration, plans for collaboration, important areas in collaboration, the involvement of parents in the IEP process, plans for communicating with families, how students can benefit with collaboration, the involvement of culturally and linguistically diverse (CLD) families, and differences in involvement of children with or without disabilities. In the second part, I discussed what participants described with respect to their personal experiences and how these experiences affected their perceptions in terms of collaborating with families. This category includes themes such as their families' collaboration experiences, their teachers' collaboration experiences, their favorite teacher and communication experiences. Finally, in the third part, I discussed participants' perspectives about the effectiveness of their teacher preparation program regarding family collaboration. This category includes themes such as why they choose to be a teacher, what grade level they would like to teach, how their K-12 experiences prepared them to be teacher, impact of coursework, and examples of collaboration. In this study, I used phenomenology as a research method to explore the past experiences of the pre-service teachers. I used phenomenological approach to look at the individual pre-service teachers' experiences and what individual pre-service teachers think about collaboration with families. Since I would like to build on my research from the perspectives of pre-service teachers, my approach was more participant centered. However, I realized that using case study would be much better. Because, I am seeking to explore for deeply understanding a particular group of people (preservice teachers) in real life context.

**Keywords:** preservice teachers, collaboration, families, special education

# Strategies That Teachers Use to Support the Inclusion of Students Who Are Deaf or Hard of Hearing

Esra Erbas

Curriculum and Instruction  
Special Education  
Indiana University Bloomington, USA  
eerbas@indiana.edu

## Abstract

Students who are deaf or hard of hearing have the ability to learn and demonstrate progress in inclusive settings. However, for successful inclusion to occur general education teachers should include strategies to make the instruction more accessible to students who are deaf or hard of hearing and make some adjustments to the classroom environment such that they are better able to meet these students' special needs.

The existing literature indicates that there has been an increase in the number of students who are deaf or hard of hearing placed in general education classrooms (Forlin, 2006; Kelman & Branco, 2009). According to Laurent Clerc National Deaf Education Center (n.d.), approximately 2.5 million D/HH students receive their education alongside hearing students in general education classrooms. With the advantages of newborn screening and technological support (e.g., cochlear implants and hearing aids), the number of deaf or hard of hearing students who attend regular classrooms has grown consistently in recent years (Kelman & Branco, 2009). Both globally and across the U.S., the inclusion of D/HH students in regular classrooms with their hearing peers has gained great momentum in the last couple of decades. Nevertheless, some studies show that placing these students in general education classrooms does not automatically enable them to further develop their social and academic skills. The academic and social settings, which are not sufficient to meet individual needs of students who are deaf or hard of hearing, affect negatively their academic achievement and may result in weak spoken language development for students who are deaf or hard of hearing (Antia et al., 2002; Bobzien et al., 2013; Luckner & Muir, 2002). Since teachers are integral to their students' success, additional information is needed with regard to the strategies general education teachers employ in the attempt to foster the inclusion of students who are deaf or hard of hearing in their respective classroom environments.

In the current literature, the strategies used to promote the inclusion of deaf or deaf students in general education classes are mostly discussed as instructional strategies, classroom arrangement that includes seating arrangement and audial arrangement, visual and technological support, and assistive listening and communication tools. However, limited data exists with regard to the examination of all these strategies under the same roof. This study aims at examining all of these strategies under the same study. The results of this study will provide more knowledge regarding the effective strategies for the inclusion of student who are deaf or hard of hearing in general education classroom settings.

The purpose of this study is to examine strategies used by general education teachers in their attempts to adjust their instructions and classroom environments for the inclusion of students who are deaf or hard of hearing in inclusive classrooms. This study seeks to answer the following question:

What strategies general education teachers employ to meet needs of students who are Deaf or hard of hearing in an inclusive classroom?

**Table.1** Observed strategies used by general education teachers

Instructional strategies
<ul style="list-style-type: none"> <li>Short and brief directions and verbal instruction</li> <li>Repetition of the information</li> <li>Repeating the questions and answers from other students</li> <li>Written notes on the board</li> <li>Varying instructional activities to engage all type of learners</li> <li>Interaction opportunities between students who DHH and students with hearing</li> <li>Encouraging students who are DHH to be active</li> <li>Determining preferred communication <ul style="list-style-type: none"> <li>• Interpreter</li> <li>• Spoken language</li> <li>• Sign language</li> </ul> </li> <li>Speaking fluently/clearly and audibly</li> <li>Asking brief and clear questions</li> </ul>
Visual and technological support
<ul style="list-style-type: none"> <li>Using visual aids <ul style="list-style-type: none"> <li>• Classroom rule charts</li> <li>• Task organizer</li> <li>• Smart board</li> <li>• iPads</li> <li>• The internet</li> </ul> </li> <li>Providing vocabulary in written format <ul style="list-style-type: none"> <li>• Flash cards</li> <li>• Notes on the board</li> </ul> </li> <li>Using facial expressions and gestures clearly</li> </ul>
Seating and audible arrangement
<ul style="list-style-type: none"> <li>Sitting and standing closer to the students who are DHH</li> <li>Students who are DHH face the smart board or white board</li> <li>Facing to the students who are DHH</li> <li>Eliminating background noise</li> </ul>
Using assistive listening and communication devices
<ul style="list-style-type: none"> <li>FM (Frequency Modulation) system</li> <li>Hearing aide</li> <li>Speaker</li> </ul>

This study aims to explore three general education teachers' practices in inclusive classrooms as the unit of analysis. For this study, a data collection chart was used to guide the observations. This data collection chart was created from the most frequently cited effective strategies that emerged from the related literature. These strategies were divided into four major themes and several sub-themes. The major themes were emerged as followings: (a) *instructional strategies*, (b) *visual and technological support*, (c) *physical arrangement of classrooms*, and (d) *assistive listening and communication*

*devices*. To accomplish this, nine observations of three elementary general education teachers were conducted in a public elementary school. After the completion of observations, some follow up questions, which were emerged from the observations, were directed to the general education teachers to learn their thoughts regarding the usage of these strategies. Throughout investigation of the instructions and classroom activities, the strategies that support the inclusion of students who are deaf or hard of hearing were observed as listed on Table. 1.

All of the strategies listed on the Table.1 were observed in the general education classrooms. However, the preferred language was determined depending on the level of the students' hearing loss. Additionally, the strategies used to increase the interaction opportunities between students who are deaf or hard of hearing and the students hearing varied depending on the grade levels of the students and teaching style of the classroom teachers. All three classrooms were designed to meet the needs of all students. They were appropriate for both group and individual studies that are very important for their inclusions. Through my investigation, I have found that these strategies are very important to provide an effective inclusion for the students who are deaf or hard of hearing. The strategies listed previously can be applied in almost any grade level. The application of these strategies is very effective to support the learning of students who are deaf or hard of hearing and promote their inclusion.

**Keywords:** Inclusion, student who deaf or hard of hearing, general education classroom, effective strategies, general education teachers.

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# Programming for Students 18-22 Years Old With Moderate to Severe Special Needs: A Case Study in Transition

Kara Rusk

Education Department  
Georgetown College, Kentucky  
Kara\_rusk@georgetowncollege.edu  
kararusk@aol.com

## Abstract

This study considers current research and best practices in working with students with severe disabilities and what transition programs should look like for these students. This case study uses the research to build a foundation for the researcher to ask vital questions of teachers to determine what program components should be in place to support students during their years of transition. For individuals with disabilities, moving along the continuum of special education services provides support and structure that families and students rely upon. Often times students with more significant disabilities have a hard time transitioning from school to the real world because those supports are much more limited and the structure is gone. Most of their time spent in the school system is focused on academic success and limits the amount of real-world, independent living skills that they are able to master. Students with moderate to severe disabilities, are able to stay in the school system until they are 21 years of age. Many of them have finished the high school program, so what happens next? How should we move these students out of the high school setting and into adulthood? How can we offer supports and continue the progression of learning but also encourage independence? As educators, it is important that we help parents, families and students plan for life after high school. Transition services start at the age of fourteen and continue as a student progresses through the remainder of their days in school. Transition services may include independent living, employment, and education or training but also need to focus on developing skills and behaviors that will help a student become independent once they finish the high school program. Creating environments that foster and develop skills of independence should be a top priority. Moving students from an academic rich environment to one that immerses them into daily living skills should be the focus of transition programs. As Naugle, Campbell, and Gray (2010) report, students with disabilities are less likely than their peers to attend post-secondary school or participate in vocational studies programs. Furthermore, they say that the perception of students with disabilities is far more negative than that of their peers which causes discrepancies in the types of programs that they seek to participate in. Creating skills-based programs that support a student's independent living, employment, and vocational training or education should be the basis for transition programs at the post high school level. It is argued by Pennington, Courtade, Ault, and Delano (2016) that students with moderate to severe disabilities are often times socially isolated. Programming that encourages community involvement and social skill development is vital to the success of transition programs. This case study will compare research centered-around transition but it will also help to demonstrate what important pieces should be in place in an effective transition program for students with disabilities

from the years of 18-22. Programming considerations will include work tasks, job shadowing, practice work skills and interviewing, grocery planning, budgeting, shopping, household chores, and community participation. All of these would be considered necessary skills to be a successful adult, however the time spent teaching these in the school system are limited. This case study serves to find a balance between academic skills and the skills necessary for the jump to adulthood. Observations and interviews with teachers, students, and parents will help to determine what skills should be taught and the literature will help to inform the best practices for implementing those skills.

**Keywords:** transition, special, education

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# Intercultural Competence in Teaching Chinese as a Second Language: A Case Study in Shenzhen

Yijun Zhou

School of Education and Social Work  
University of Sydney, Australia  
yzho5360@uni.sydney.edu.au

## Abstract

This paper outlines an empirical case study on the development of intercultural competence (IC) by international students studying Mandarin in Shenzhen. Teaching Chinese as a foreign language (TCFL), referring either to the teaching of Chinese internationally, or the teaching of Chinese as an international language, is widely recognised as a subject (George, 2014). However in line with the practice of referring to the teaching of another language within the country where it is spoken as 'second language teaching,' and the case study relates to teaching within China, this paper concerns the teaching of Chinese as a second language (TCSL). Since the late 1980s, research into intercultural competence (IC), particularly with regard to the teaching of English, has seen the development of models to measure student progress in effective and appropriate interaction in the target language (Deardorff, 2006). The case study research aims to use documents, questionnaires, classroom observations and individual interviews to examine how international students perceive Chinese elements of language and culture in the learning process, and how they interact with this content in practice. The study then aims to determine factors that contribute to student intercultural competence in a classroom context. Three conceptual areas were identified: intercultural competence; critical cultural awareness, and task-based language teaching/learning. Documentary analysis was carried out under the broad categories of archaic culture, residual culture, and emergent culture (Williams, 1977, 1983). The research was conducted in a college in Shenzhen. It involved 78 international students from 28 countries, together with nine native-speaking Chinese teachers. The researcher collected 39 consent forms and 41 questionnaires from the students, and nine consent forms and eight questionnaires from the teachers. Twelve students and eight teachers undertook individual interviews. The student participants ranged in age from 18 to 57, with 85 per cent in their twenties (26) or thirties (9). Around 61 per cent of the students were from ten European countries, about 32 per cent from five Asian countries and about 7 per cent from North and South America and an African country. Around 71 per cent of students speak English as either their first language or second language, and about 76 per cent of the total were bilingual or multilingual (excluding speakers of Chinese). All the twelve student participants interviewed had advanced proficiency in English. On average the students had learnt Chinese for just over one year. This study was designed to take place in three stages. First, a general survey collected basic background information on both student and teacher participants as well as their opinions relating to intercultural competence, teaching/learning materials, pedagogical approaches and student learning outcomes. Secondly, two or three 30 minute classroom observations were carried out for each subject area. Finally semi-structured individual interviews were carried out with preliminary analysis of questionnaire and

classroom observation data in consideration; various data sets were analysed and compared through triangulation. (Denzin, 1997) Documentary data gathered were cross checked and validated against observation of actual interactive in-class practice. The Shenzhen findings on intercultural competence, generalised to apply to China as a whole, indicate that there are both improvements in and barriers to IC development of international students in the context of TCSL in China. Nearly 70 per cent of the student participants were generally happy with the curriculum and teacher instruction, and their Chinese language level improved to an extent. The students' linguistic competence correlated with their measured IC level. Significantly, students mentioned that some teachers had brought the students' studies into their daily lives by introducing Chinese learning apps and meaningful tasks and assignments. Nearly all of the participants stated that the macro learning environment -- the city of Shenzhen, one of the most developed and internationalised areas in China -- had played a vital role in their learning. From the Shenzhen case study, it can be seen however that what may be termed 'a native-speaker approach' was still dominant in curriculum design and classroom practices at all levels of TCSL in certain courses, especially in reading and listening classes. Classroom teaching was focused on discrete knowledge of language and cultural content, as determined mainly by the native-speaking Chinese teachers. There remained a mismatch between overseas students' learning needs, the curriculum content and the pedagogy employed. Innovative measures to achieve student intercultural competence may predictably be held back through teachers' lack of necessary knowledge and skills. These barriers or difficulties relate partly to limited teacher access to professional development opportunities and local and global communications, and limited teacher experience with foreign languages. Difficulties in conveying skills in intercultural competence to students also relate to limited understanding by teachers of the key role of the students' first language and native culture in the process of second language learning. The findings also indicate a lack of flexibility in teaching in terms of a comparatively rigid institutional system and administration. From the case study, it appears that globalisation, high technology and social media platforms have been playing an increasingly important role in IC development in the context of TCSL. Other factors that may impact on international student IC development include students' personality, attitudes towards their first and second language, motivations to learn Chinese, and peer influence. Teaching Chinese as a second language is more than just teaching/learning language and culture. At the heart of TCSL there is the need to develop learners' intercultural competence for communication in global as well as bilateral contexts. TCSL needs to focus on the importance of intercultural competence in more depth and in a broader scope. The actual application of IC teaching in a college in China might vary according to specific geographical factors, the number of students and the students' ethnic background. Accordingly, there will be value in assessing the validity of conclusions on the development of intercultural competence as it emerges from the experience of other universities and colleges throughout China and other areas in the world in teaching Chinese as a second/foreign language.

**Keywords:** intercultural competence, teaching chinese as a second language, international students

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# Education, Drug Trafficking and Immigration U.S. Educational Aid in Central America Fruitless Past and Perilous Future

José A. Salgado

School of Education  
Salem State University, Salem, MA. USA  
Jsalgado@salemstate.edu

## Abstract

For over a century the United States has had economic and political interest in Central America. In order to protect these interests, U.S. officials have developed a series of policies; including educational programs aimed at transforming the minds and actions of individuals. The educational component of U.S. foreign policy is part of a comprehensive strategy aimed at achieving foreign policy objectives. The U.S. has created educational programs aimed at restraining the presence of fascism and communism in Latin America. Currently, U.S. programs in the region are designed to curtail drug trafficking and immigration.

This paper analyzes these educational programs, explaining their failures and providing possibilities for their redefinition. Furthermore, the U.S. government has recently proposed eliminating these programs. This paper argues how this decision will weaken the region and reduce the positive impact their redefinition may have on immigration and drug trafficking as China fills the void left by the United States.

## Introduction

U.S. foreign policy in Central America has had, and continues to have, a significant influence in the economic, political, cultural, social and educational systems of the region. Mecham (1961,1965), Gelman, (1979), Paterson & Rabe (1992), Cardoso & Helwege (1995) assert that the United States government identified economic and political interests in Latin America in the early Nineteenth Century. U.S. direct influence in the region increases when its interests are threatened: fascism in the 1930's and 1940's, communism in the 1950's, and Soviet expansionism in 1960's, and in the first two decades of the 21st century, drug trafficking and illegal immigration. Education is part of U.S. foreign policy as a response to these crises. Despite good intentions, these educational interventions have not yield the results expected for the region.

This paper demonstrates how the U.S. Government defined education primarily as a mechanism to instill in students the values and attitudes required for economic development. If students learn these concepts, U.S. officials argue, they would be deterred from embracing communism or migrating the U.S., fulfilling, thus, U.S. policy goals in the region. This paper also examines the reasons for the failure of these Programs and argues for their redefinition and continuation.

This work analyzes two sets of documents: the first set examines the content of two series of Social Studies elementary school textbooks: One created by the U.S. Government, for all Central American schools, implemented in Central America

between 1962 and 1979, as part of the U.S. response to the soviet expansionism in Cuba; the other set consists of the textbooks created by Honduran authors produced and used during the same period and later substituted by U.S. sponsored textbooks.

The second set of documents analyzes the content, objectives and the purpose of present-day interventions in Central America. This set includes documents regarding of the Alliance for Prosperity, a program designed under President Obama aimed at dealing with Central Americans migrating to the U.S. and curtailing drug trafficking.

Foucault (1977) argues that developing a position of power requires the “correlative constitution of a field of knowledge”(p. 27). Furthermore, McGovern (1999) argues “that textbooks carry values, ideas, and assumptions, and embody certain ideas about reality and exert power by directing people’s attention toward particular elements of reality”(p. 4). The textbooks created by the U.S. introduced concepts, ideas, values and knowledge based on modernization theory as defined by Walt W. Rostow in his book: *Stages of Economic Growth. A Non-Communist Manifesto*. The textbooks systematically introduced these concepts, knowledge and new ways of thinking, redefining Central Americans life’s purpose as economic wealth that would be attained by working in factories, imitating American industrialization, and becoming a consuming society. Several themes emerge in the textbooks directly connected to the tenets of Modernization Theory: 1) Education as a mechanism to create a new type of individual, 2) The purpose of education and life as economic gain, and, 3) Redefining family, community and the role of political life.

On the other hand, textbooks created by Honduran authors present concepts and ideas associated with local cultural values and norms, focusing on familial relationships, respect, protection of the environment, and a critical view of work conditions. Honduran books present economic and political concepts to a much lesser extent and with a different goal when compared to textbooks created by the U.S. government. Specifically, Honduran textbooks focus on 1) family unity, 2) school as places to develop relationships, 3) patriotism, and 4) community building.

Present day interventions are primarily focused on economic development as a deterrent for immigration and drug trafficking. Analysis of these documents demonstrates that, as in the past, narrowly defining the purpose of education does not produce the expected results. Most problematic, however, is how U.S. foreign policy is moving to defund these programs. Although the impact of these programs has been inconsistent, their elimination would weaken the region and diminish the positive influence U.S. political soft power and education can have in the region’s progress. The void left by the U.S. would, in the long run, will be taken by China. According to Niu (2015) China’s relationship with Latin America and the Caribbean (LAC) experienced a process of impressive expansion in the first 15 years of the 21 Century. China has been the largest trade partner for some of LAC’s major economies such as Brazil, since 2009. Furthermore, Ghitis (2015) explains:

Beijing has made a move into the region with intensity and determination, a process that serves to highlight, among other things, Washington's perennial tendency to become distracted from its own hemisphere. Beijing, on the other hand, could not be more attentive. China has become a source of massive alternative financing, particularly for countries that have defaulted on their loans to Western creditors and have been shut out of traditional credit markets.

### **The Educational Response to Crises**

Educational interventions in the region began in the late Nineteenth Century. Espinoza (1976) argues that educational and cultural interests in the region began in the 19th century when, on May 10, 1888, the U.S. Congress authorized the President to invite Latin American delegates to attend a conference (p. 24). The conference began with a six week-tour of the country, which was followed by a six-month meeting. The foundations for student and professor exchanges, the production of textbooks, and other educational structures were discussed at this meeting.

By 1936, the United States identified the crisis that threatened the region: Fascism. Gellman (1979) stated that the fear that the Nazi ideology would expand in Latin America promoted the creation of new mechanisms of education towards the region. In the early 1950's, a new threat to the region was defined: Communism. The educational response of U.S. foreign policy included, amongst other, the distribution of books and textbooks. The educational component of U.S. foreign policy also included the exchanges of students, professors, and specialists between the United States and Latin American republics, the signing of treaties, pacts, and the attending to international meetings, the creation of organizations and legislature that would facilitate the implementation of education policies in the region. These organizations included: the Division of Cultural Relations of the State Department, the Office of the Coordinator of Inter-American Affairs (OCIAA), The Fulbright Act, The Smith-Mundt Act, the United States Information Agency (USIA), the Alliance for Progress, and the International Education Act of 1966. These institutions, programs, and laws were responsible for carrying out the educational solution to the problem facing Latin America.

By the 1960's The United States government had defined Soviet Expansionism as a threat to the region. This threat became more urgent as Fidel Castro took over the Cuban government in 1959. President Kennedy's Alliance for Progress was created to comprehensively address Soviet expansionism in Latin America. The textbooks detailed in this paper were created under this Program. A 1961 report by the U.S. Advisory Commission on Educational Exchange details the guidelines for the region's educational programs for the next decade:

...2) Programs in education, science, culture, information, and the educational component of technical assistance are basically interrelated aspects of foreign relations, and must therefore, be subject to integrated policy guidelines. 3) Many of US foreign policy objectives would be furthered through educational and cultural cooperation, and they could be achieved with the cooperation of the United Nations.

The idea of implementing educational programs to solve crises in the region continues to this day. The latest crises, however, comes in the form of unaccompanied children crossing the southern border and the drug trafficking coming from the region. Edwards (2016) states that from October 2015 through January 2016, U.S. border patrols apprehended 20,455 unaccompanied children from Central America in nine crossings in the U.S. southwest, a 102 percent increase over the same period a year earlier. Another 24,616 Central American migrants were apprehended in the same time period, representing a 171 percent increase. In November 2014, the White House announced the creation of the Alliance for Prosperity to address this crisis. On March 2 and 3, 2015 Vice-President Biden held a meeting with the presidents of Honduras, El Salvador and Guatemala in order “to discuss steps to stimulate economic growth, reduce inequality, promote educational opportunities, target criminal networks responsible for human trafficking, and help create governance and institutions that are transparent and accountable.”

On January 14, 2016 the White House released a statement detailing the Alliance for Prosperity: “The U.S. Strategy for Engagement in Central America is intended to address many of underlying conditions driving migration.” The release also states: For Fiscal Year 2016, the Administration plans to provide up to \$750 million to implement its strategy in support of the Northern Triangle’s Alliance for Prosperity Plan, and other regional priorities. This funding will be available only if the region commits to: Inform its citizens of the dangers of the journey to the southwest border of the United States, combat human smuggling and trafficking, improve border security, and facilitate the safe return, repatriation, and reintegration of undocumented migrants. The educational response to this crisis comes in the form of educational programs aimed at increasing opportunities for young men and women. After two years of implementation, young people are still fleeing Central America. Policies to address drug trafficking consist mainly of military and strategic aid.

### **The Documents**

Modernization theorists believed that in order to transform a traditional society into a more developed one, "man" himself had to be transformed. They argued that creating a "modern man" was a necessary condition for the economic transformation of a traditional society; man was not born modern. Inkeles and Smith (1974) listed a series of elements that make "men modern;" one of them was "Work Commitment" (p. 289). They believed that in some third world countries it was difficult to develop a stable industrial labor force: “men often come to work in industry only when pressed by economic circumstances, and as soon as they had accumulated some cash return to their villages or to other traditional pursuits.” The first step was to transform “men” was redefining labor. The U.S. sponsored Social Studies textbooks and Honduran textbooks present striking differences around concepts of labor and work. For instance, the objective of first grade the U.S. sponsored teacher's manual, stated:

To get the children to learn and value human labor as one element of production and progress, as a dignifying factor in life, and as a source of social benefits when

it is well distributed and well done. To strive for the children to understand that in the same way that we benefit from general labor and common wealth, we are, at the same time, obligated to be contributing, active members.

Honduran writers presented divergent concepts about work and labor. The fourth grade textbook stated: "Another unfavorable factor for the people of our country is the low salary that company owners pay workers for eight hours of work and sometimes even more. The workers have to take a salary that is insufficient to live." Honduran textbooks explain the challenges faced by workers, the causes of poverty and the need for authorities to solve these problems. The concept of work was not presented as part of a formula for economic prosperity, but as a basic need of people. Most importantly, Honduran textbooks did not present people's work habits as needing to be changed.

Modernization theorists also believed the new "man" had to have a different understanding of family. Inkeles and Smith (1974) define family in economic terms: "Socially, men must transform the old culture in ways which make it compatible with modern activities and institutions. The face-to-face relations and warm powerful family ties of a traditional society must give way to more impersonal systems of evaluation in which men are judged by the way they perform specialized functions in society" (p. 26).

U.S. sponsored textbooks emphasized this concept. For instance, the second grade teacher's manual's objectives was to "develop in children an understanding of the family, its relationships, each member's jobs, and the role that each plays within the family." The second grade textbook also emphasized this concept in the unit "Vacation at the Beach," the textbook explained that Emilio's father was not able to go on vacation with the rest of the family because he had to work. This last statement points to the introduction of this new concept: work over family, contradicting Honduran values and culture.

According to modernization theorists, community was central to political and economic development. In their proposal for an effective foreign policy, Millikan and Rostow (1957) affirmed that: Perhaps the most critical requirement for the growth of political maturity is that people develop confidence, both as a nation and as individuals, in small communities, that they can make progress with their problems through their own efforts (p. 31). In stark contrast, Honduran textbooks defined community in non-economic terms. The third grade textbook defines community as a "group of people, more or less numerous, that live closely related." The same textbook defined family as the center of communities and the importance of a national identity: "As a result of the ties that bring members of a nation together, there exist amongst them a feeling of unity and brotherhood called national consciousness or nationalist feeling."

Additionally, Inkeles and Smith (1974) argued that knowledge of politics is an indispensable condition for the modernization (p. 29). However, U.S. sponsored textbooks focused on equating democracy to capitalism and depicting the Soviet Union in vastly negative terms. The fifth grade textbook explained Russia's government: "This

regime is known for restrictions on the freedom of the individual, such as freedom of expression, work, voting, thought, amongst others.” The textbook focuses on the virtues American democracy and its history. However, at the time these books were being used, Honduras lived under a military dictatorship.

Announced in November 2014, the Alliance for Prosperity Plan (APP) is a five-year joint regional plan created and implemented by the United States in Guatemala, Honduras and El Salvador. This program encompasses an educational component which goal is linked to curtailing immigration and drug trafficking by eliminating its causes: economic reasons. According to Massey et al (2016) “the APP seeks to control migration by regulating or influencing labor markets. Garcia (2016) In an article from the Council on Hemispheric Affairs (COHA), stated: “if the Alliance for Prosperity Plan is implemented as structured, it could end up harming, rather than aiding, Central Americans in the long-term.” Another COHA report (2016) stated, “The APP is just a continuation of the several failed strategies towards security already seen throughout Central America.” These actions reveal a poor understanding of, and response to, the complex underlying social phenomena that result in the emigration flows from Central America

## **Conclusions**

Education is an integral part of the well-being of a nation and a key component for development and progress. However, after a century of U.S. educational, political economic, and military policies in Central America, the region continues to lag behind in democratic, economic, social and educational advancement. The promises of U.S. foreign policy goals were not fulfilled. Several countries in the region have turned to “XXI Century Socialism” that limits individual freedoms; other nations are under a de facto dictatorship, poverty is rampant, and thousands of Central Americans continue to journey north into the United States.

The central tenet of Modernization theory is that nations can develop by following a set of economic and political stages. U.S. sponsored textbooks, regardless of topic; would link every concept back to these stages: The Traditional Society, the Pre-condition’s for Take Off, the Take Off, the Drive to Maturity, and the Age of High-Mass Consumption. Education is defined as a way to transform the student, who by simply learning how to work, invest, and produce, will change society, and serve to promote U.S. goals. This premise of not taking into consideration the local understanding and knowledge is the main flaw of educational programs. This notion of creating educational interventions with limited purposes and closely linked to foreign policy goals has been a trademark of U.S. foreign policy in the region.

The foundations and goals of these educational programs were designed with a narrow definition of the purpose of instruction: work, reject communism or, do not migrate to the U.S. Dewey (1966); Freire (1971); Macedo (2000); Duckworth (1999, 2006) argue that students construct knowledge from their own cultural perspective, and education must revolve supporting the student to understand and act upon this reality. Therefore, a better way to educate is to create experiences where students explore, make sense of

the world, analyze reality through the study of the sciences, with the goal of providing the skills to improve life conditions.

Furthermore, the theoretical and cultural foundations and content of these textbooks were imported and unfamiliar to students and teachers, making it impossible to bridge their understanding of the world, with the new ideas and concepts presented by U.S. textbooks. Also, these textbooks assume that local cultural norms prevent society from developing economically. In short, students and the country are defined as deficient and requiring becoming another version of themselves, rather than using their understandings as an asset to develop critical thinking skills aimed at solving local problems.

The purpose and value of educating Honduran people changed authorship and ownership, contributing to the U.S. program's inability to incite the progress it promised, as the textbooks did not address comprehensively Honduran cultural and socio-economic reality such as the idea of educating and defining humans solely in economic terms. Furthermore, these textbooks intended to substitute cultural understanding of family, community, and politics, undervaluing students' reality. A more productive model would engage students in analyzing their own families, and engaging in studies of poverty, human rights, immigration, and drug trafficking. These topics are missing from the curricula.

Current educational and economic programs face similar challenges. Despite the Alliance for Prosperity focus on economic improvement, conditions in Central America have worsened. The reasons for this decline are not discussed in textbooks, making it impossible for students to outline problems and find solutions. A more efficient model should empower, politically and financially, the lowest strata of society, leveraging national government's commitment to these goals.

The region desperately needs to improve outcomes in education, equality, economics, and democracy. The U.S. plays a significant role in this task. U.S. aid to Honduras is conditioned provided that local governments commit to improving human rights violations. However, China's policy will not pursue such policies. A 2016 report from the Council on Hemispheric Affairs states: "From the Chinese perspective, the government has viewed the China-Latin America relationship as one based on economic benefits rather than an attempt to project political influence." This focus on economics will damage the fragile democratic processes and deteriorate living conditions for the people, pushing them to migrate to the U.S. Honduras currently lives under a de facto dictatorship and high level local officials have been connected to drug trafficking. Hence, economic and educational support to the region must be conditioned provided local governments increase democratic practices that follow the rule of law, criminals connected to the government are prosecuted, and crimes are investigated.

U.S. influence and soft political power in the region, paired with meaningful education, could leverage dramatic change in governance, human rights, poverty, and immigration. Educational and economic programs should aim to directly tackle the complexity of the

issues by developing curricula that allow students to develop analytical and higher order thinking skills. Moreover, curricula must engage students in critically analyzing national and international democratic process and practices, actively participating in a democracy beyond voting, but also in organizing and working with authorities to propose and support initiatives aimed at the common good.

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## **The Textbooks**

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- Estudios Sociales – Guía del Maestro Segundo grado USAID-ROCAP 1968
- Estudios Sociales Tercer grado. USAID-ROCAP 1968
- Estudios Sociales – Guía del Maestro Tercer grado USAID-ROCAP 1968
- Estudios Sociales Cuarto grado. USAID-ROCAP 1968
- Estudios Sociales – Guía del Maestro Cuarto grado USAID-ROCAP 1968
- Estudios Sociales Quinto grado. USAID-ROCAP 1968
- Estudios Sociales – Guía del Maestro Quinto grado USAID-ROCAP 1968
- Estudios Sociales Sexto grado. USAID-ROCAP 1968
- Estudios Sociales – Guía del Maestro Sexto grado USAID-ROCAP 1968

# Postsecondary Education Global Rankings

Thomas J. Roberts<sup>1</sup> and Shahid Rasool<sup>2</sup>

College of Education  
Florida Gulf Coast University, USA

<sup>1</sup>troberts@fgcu.edu

<sup>2</sup>srasool1201@eagle.fgcu.edu

## Abstract

This paper contributes to the emerging debate of controversial and contentious ranking of the world postsecondary institutions. According to Walshe (2007), university rankings on a global scale became common in the 1990's. There are currently over forty national rankings that exist around the world (Gordan, 2009). Rankers of postsecondary institutions include newspapers or magazines, accreditation organizations, government agencies, and higher education ministries (Wildavsky, 2010).

Although ranking systems are source of contention among stakeholders (Wildavsky), both positive and negative attributes of ranking systems are identified. Hazelkorn (2007) asserts ranking systems serve a useful role as a consumer information tool and highlight key aspects of academic achievement. Detractors indicate that ranking systems focus heavily on research and reputation related measures and not enough on student learning outcomes (Wildavsky). Since 2003 Shanghai Jiao Tong University's Institute of Higher Education has annually published the *Academic Ranking of World Universities* (Academic Ranking of World Universities, 2017). Some consider this global ranking system as the most influential (Wildavsky, 2007).

This paper will focus on the history of global rankings, identify pros and cons of global ranking systems, identify a ranking system that is perceived to be the most influential, and examine the methodology used to determine global rankings. Methodology for the selection of universities, ranking criteria and weight, indicators, and data sources used in the *Academic Ranking of World Universities* will be explained.

**Keywords:** international education, higher education, global initiatives, global rankings

## Introduction

Ranking of postsecondary institutions is often considered controversial and contentious. Wildavsky (2010) was the editor of the *U.S. News & World Report* college guide in the mid-2000's, and reports that numerous complaints were often received in regard to the published ranking of postsecondary institutions in the United States.

Many complained about one or more of the methodologies used to determine rankings, while others simply believed that journalists and other outsiders should not be ranking postsecondary institutions at all (Wildavsky). Hongcai (2009) asserts that despite debate in regard to the scientific merit of academic ranking of world universities, the ranking systems provide an avenue for consumers to learn more about specific universities, compare institutions, and provide an opportunity for universities to identify

peer institutions. University ranking systems are a tool used in meeting the needs of current and prospective students and parents in selecting a postsecondary educational institution. Consumers want to know about available choices and look for the most ideal educational environment. University students, professors, and administrators are interested in knowing the performance of their universities to gain a better understanding in regard to how they could improve (Hongcai 2009).

Regardless of the often contentious dialogue pertaining to ranking systems, it is clear that many individuals, organizations, and government agencies do reference the rankings, and that decision making may be influenced by the ranking systems in a number of ways. This paper is organized into four additional sections following this introduction. The second section provides a brief background about the history of university rankings on global scale. The third section includes a comparison between the *Academic Ranking of World Universities* (ARWU) and the *Times Higher Education World University Rankings* (THEWUR) since they are often perceived as the most influential in the world (Wildavsky). The fourth section focuses on the methodology used to determine global rankings and includes perceived pros and cons of the global ranking systems. Finally, section five summarizes the self-criticism, and limitations of the ranking systems.

### **History of Higher Education Rankings**

Ranking of postsecondary education institutions has existed in some form for several decades. In the United States, James Cattell published *American Men of Science* to showcase the most distinguished men and the institutions they attended dating back to 1910 (Myers, & Robe 2009). In 1983, the *U.S News and World Report* began publishing rankings of postsecondary institutions in the United States. The rankings began as a single journalistic project, but due to the significant interest the publication of rankings received, the publisher continued annual rankings of postsecondary institutions in the United States. The initial focus was simply on which universities had the most accomplished graduates. The key points were the theory of educational quality and the performance of graduates in graduate school (Wildavsky, 2010).

According to Wildavsky (2010) by the early 1960's, the primary criterion used for rankings was an institution's reputation among its peers rather than the accomplishments of its graduates. Allan Carter published his critically acclaimed reputation-based college rankings known as *Assessment of Quality in Graduate Education* (Wildavsky, 2010). By the late twentieth century, as the number of students attending college increased, the interest in how to make a sound college choice also increased. In addition, an increasingly competitive admissions' climate led to more interest in university ranking systems (Hongcai, 2009). Prior to the late twentieth century, consumers could only rely on perceived reputation, recruitment brochures, and limited information about the programs offered at postsecondary institutions. Postsecondary institutions began to enhance their recruitment campaigns by adding more colorful pictures to their school profiles, but such tactics did not necessarily serve as a reliable indicator to students and parents in regard to the overall quality of an institution (Wildavsky, 2010). A far more credible effort was launched by the New York

Times in 1981 through the publication of *The New York Times Selective Guide to Colleges*, later referred to as *The Selective Guide to Colleges*. Edward Fiske compiled the guide with the help of student reporters at campuses across the nation. In 1983, another journalistic project was focused on identifying the best colleges in the United States, which was exclusively based on reputation. The first comprehensive *U.S. News & World Report Guidebook* was published in 1987. The guidebook was prepared after consultation with external experts and led to dividing the ranking publication into two components. The first component was a reputational survey that included college presidents, provosts, and dean of admissions in an attempt to bring a broader base of expertise to the task. The second component was the quantitative assessment of institutions' operational data including factors such as average SAT or ACT scores, student's retention data, research budget, average faculty salaries, and percentage of faculty with terminal degrees (Wildavsky, 2010).

Following the initial publication of ranking systems in the United States, other countries developed ranking systems due to the popularity of the published rankings in the United States. According to Walshe (2007), university rankings on a global scale became common in the 1990's. In Europe they were referred to as "league tables," a term commonly used for sports rankings. There are currently over forty national rankings that exist around the world (Gordan, 2009). Rankers of postsecondary institutions include newspapers and magazines, accreditation organizations, government agencies, and higher education ministries (Wildavsky, 2010). There were several factors included in these global rankings which were used by the *U.S. News & World Report* in their ranking system. For example, institutions were ranked from highest to lowest based on a combination of quantitative and qualitative measures including data about their research and teaching outcomes, and surveys pertaining to students, peers, and outside analysts (Wildavsky, 2010).

Increased interest in enriching the reputation of higher education in Asia helped ignite the growing popularity of university rankings there. In 1997, *Asiaweek* magazine issued the first ranking of universities specific to Asian nations. In 2002, the Swiss Center for Science and Technology Studies published a global postsecondary institution ranking system known as the *Champions League*. This publication was based solely on research journal publications by faculty members at institutions (Wildavsky, 2010).

The first international university ranking of postsecondary institutions was published by the Center for World-Class Universities (CWCU) at Shanghai Jiao Tong University in 2003. Some view this ranking system as the most influential international ranking in the world (Jons & Hoyler, 2013). Shanghai Jiao Tong University administrators were concerned about the university's decline from its previous high ranking in various publications compared to other institutions, particularly in the area of research. Therefore, the first director of strategic planning at the Shanghai Jiao Tong University compiled a report comparing his university's performance in China to top postsecondary institutions around the world (Wildavsky, 2010). Various sources cite the *Academic Ranking of World Universities* as the most widely used annual ranking of the world's research universities (About Academic World Rankings, 2017). Liu (2007) indicates that

when the *Academic Ranking of World Universities* was first published on-line in 2003 that the site attracted four million visitors with an average of 2,000 visitors per day.

In 2004, a second global effort was launched by a British publication known as the *Times Higher Education Supplement* (Wildavsky, 2010). The London-based weekly magazine compiled an international ranking that has since been published annually. *Times Higher Education World University Rankings* (THEWUR) quickly began vying with their Chinese rival for influence on the world education scene. Views from students, universities, and policy makers are mixed in regard to the superiority of the two ranking systems. However, it is broadly accepted that the THEWUR far surpassed the Shanghai ranking (ARWU) in terms of generating controversy. A primary reason for this is that peer survey weighting was established at twenty-five percent (25%) which many consider a disproportionate influence on the magazine's college rankings (Wildavsky, 2010).

In 2004, a new effort was made to zero in on specialized aspects of the higher education enterprise which are ignored by conventional rankings. The *Webometrics Ranking of World Universities* was launched in Spain to measure universities' Web-based activities, particularly the volume, visibility, and the impact of the web pages published by universities (Wildavsky, 2010). Developed by Spain's largest public research body, these rankings focused on web-based publication of scientific output, including refereed papers, conference contributions, theses, and reports, as well as courseware, digital libraries, databases, personal Web pages and more. Webometrics updates its rankings every six months. The goal of this ranking system is to promote electronic publication by the world universities and to adopt new technologies. It does not offer any solid criteria for students to use this ranking system to choose their future university (Wildavsky, 2010).

### **Overview of Academic Ranking of World Universities (ARWU) and the Times Higher Education World University Rankings (THEWUR)**

The *Academic Ranking of World Universities* (ARWU) is considered to be the most influential ranking system in the world due to consistency, transparency, and use (Wildavsky, 2010). The director of strategic planning of Shanghai Jiao Tong University and his research team pride themselves on having developed a transparent methodology and having results readily available on their website (Wildavsky, 2010). The *Academic Ranking of World Universities* (ARWU) is widely viewed as being consistent and transparent. Its methodology is clearly stated on their website and has been applied consistently from year to year. This ranking system relies on publically accessible indicators of success in order to avoid costly and time consuming survey research and to maintain transparency. The rationale behind the *ARWU* is to determine how universities have had an impact on the economic development, research performance, and overall assessment of educational quality at postsecondary institutions around the world. Thus, the research performance of these universities can be standardized to make it comparable globally and provides a good indication of the relative standing of different institutions (Wildavsky, 2010).

Although the initial purpose was to find the global standing of Chinese universities, *ARWU* has gained significant attention from students, universities, government agencies, and public media from all over the world (ARWU Website, 2017). *ARWU* has annually ranked more than 1200 universities and the top 500 ranking institutions are published. One of the factors for the significant influence of *ARWU* is the methodology which is deemed scientifically sound, stable, and transparent. The *ARWU* is widely cited, considered a good source for identifying national strengths and weaknesses, and has become a source for facilitating reform and setting new initiatives (ARWU Website, 2017). Many institutions around the globe use the *ARWU* to analyze the comparative advantages of institutions in terms of intellectual talent and creativity. The *ARWU* research team continuously attempts to improve their methodology in response to those critical of the publication (Wildavsky, 2010). The team illustrates through action an open mind in considering suggestions to continuously improve their methodology.

The *Times Higher Education World University Rankings* (THEWUR) emphasizes its aspiration to create a more holistic assessment of universities as compared to the *ARWU*. Some critics view the *THEWUR* methodology to be problematic on a variety of grounds (Wildavsky, 2010). Critics cite the highly volatile index of the *THEWUR* as compared to the relatively stable *ARWU* counterpart. The sudden change in data collected and methodology utilized within the *THEWUR* is illustrated by what occurred in 2007 when Stanford University dropped in rankings from number 6 to number 19, the National University of Mexico plunged from 74 to 192, and the National University of Singapore declined from 19 to 33 (Wildavsky, 2010). The changes in methodology were a result of reacting to criticism from detractors. The changes made in terms of data collection and methodology by *THEWUR* prevented reviewers from assessing their own universities, changed its citation database and began using statistical normalization to control for outlier scores. In addition, some reporting errors have been cited in the *THEWUR*.

In 2016-2017, 980 universities worldwide were included in the *THEWUR* list (THEWUR Website 2017). However, the primary focus is on the 200 top-ranked universities. Universities around the globe reference *THEWUR* data as a benchmarking tool to assist them in assessing their strategic goals. (THEWUR Website 2017).

### **Methodology - Global University Rankings**

The ranking of universities worldwide has evolved into an annual affair that consumers and others eagerly anticipate. Those interested in rankings include university presidents, vice-chancellors, administrators, students, and parents from all over the globe (Soh, 2015). These interested parties desire to know how postsecondary institutions compare with one another on annual basis. Furthermore, worldwide ranking systems assist interested parties in determining the perceived contributing factors in what makes great universities.

According to *ARWU* Website (2017), *ARWU* utilizes four (4) criteria and six (6) indicators of academic or research performance. The six (6) indicators of academic success include:

- 1) Alumni winning Nobel Prizes and Field Medals.
- 2) Staff winning Nobel Prizes and Field Medals.
- 3) Highly cited researchers in 21 subject categories.
- 4) Papers published in Nature and Science.
- 5) Papers indexed in major citation indices.
- 6) Per capita performance of an institution.

The sixth indicator, per capita performance of an institution, is derived from the first five indicators. A score of 100 is assigned to an institution based on these indicators; other institutions are ranked as a percentage of the top score. The weighted score is used for each indicator to reach an overall score for an institution. *ARWU's* methodology indicates that one-hundred (100%) percent weight is attributed to academic indicators. None of the criteria or indicators are devoted to managerial indicators (*ARWU Website*). Table 1 illustrates the criteria, indicators, and assigned weights used in the *ARWU*.

**Table 1: Criteria, Indicators and Assigned Weights Used in Arwu**

<u>Criteria</u>	<u>Indicator</u>	<u>Code</u>	<u>Academic Weight</u>	<u>Managerial</u>
Quality of Education	Alumni winning Nobel Prizes and Field Medals	Alumni	10%	≠
	Staff winning Nobel Prizes and Field Medals	Award	20%	≠
Quality of Faculty	Highly cited researches in 21 subject categories	HiCi	20%	≠
	Papers published in Nature and Science	N&S	20%	≠
Research Output	Science Citation index and Social Science Citation Index	PUB	20%	≠
Per Capita Performance	Per capita performance of all the above indicators	PCP	10%	≠
Total			100	

**Source:** The Academic Ranking of World Universities (*ARWU Website*) (2017)

Managerial criteria and global peer review are the primary indicators that distinguish the *THEWUR* from other rankers. An online survey known as the Academic Reputation Survey (*ARS*) is distributed to academics around the globe (Marquez, Torres, & Bondar, 2011). The *ARS* is administered once a year with the most recent administration being January to March 2016. This survey attracted 10,323 responses during this short period of time. The 2016 survey data are combined with the responses collected from 2015 surveys; resulting in over 20,000 responses for this indicator. The survey attempts to evaluate the prestige of institution in regard to teaching (*THEWUR Website*).

*THEWUR* performance criteria are grouped into the following five major categories:

- 1) Teaching (the learning environment, the core business of any academic institution).
- 2) Research (volume, income, and reputation).
- 3) Citations (research influence).
- 4) International outlook (staff, students, and research).
- 5) Industry income (knowledge transfer).

Table 2 illustrates the criteria, indicators and assigned weights used in the *THEWUR*.

**Table 2:** Criteria, Indicators and Assigned Weights Used in Thewur

<b>Criteria</b>	<b>Indicator</b>	<b>Academic Weight</b>	<b>Managerial</b>
Teaching (learning environment)	Reputation survey – 15% Staff-student ratio – 4.5% Doctorate-bachelor's ratio – 2.25% Doctorates awarded to academic staff ratio- 6% Institutional income - 2.25%	30%	≠
Research	Reputation survey- 18% Research income- 6% Research productivity- 6%	30%	≠
Citations	Research influence	30%	≠
International outlook	International to domestic ratio-2.5% International to domestic staff ratio- 2.5% International collaboration-2.5%	≠	7.5%
Industry income	Knowledge transfer	≠	2.5%
Total		90	10

**Source:** Times Higher Education World University Rankings (*THEWUR* Website, 2017)

Three of the five *THEWUR* criteria (teaching, research and citations) are considered academic in nature and are assigned a total weight of 90 percent. The remaining two criteria (internationalization and community relations) are considered non-academic, or managerial criteria, which are assigned a total weight of 10 percent (*THEWUR* Website).

### **Pros and Cons of Global Ranking System**

In the era of globalization, rankings are a powerful force in higher education. Accountability and benchmarking have achieved iconic status (Altbach, 2012). Every year, people across the global eagerly await new rankings. Release of published

rankings creates a great media buzz since institutions often fluctuate in their ranking and consumers desire to learn where various institutions rank. Across the globe, students and their parents use rankings to decide what different postsecondary institutions have to offer in terms of value, education, prestige, and prices of their degrees (Altbach, 2012). There are millions of students' enrolled outside their home countries who seek the best universities. Many postsecondary institutions across the globe utilize rankings to benchmark their performance against other institutions and to assess their perceived successful or weak performance. Despite attention and utilization of ranking systems around the world, they are not immune from criticism and methodological issues. Individuals and policy makers who rely on such ranking systems would be wise to keep both pros and cons of the ranking systems they reference in mind since important decisions are often made as a result of published rankings (Altbach, 2012).

### **Advantages of Ranking Systems**

A comprehensive review of the literature indicates perceived advantages of global ranking systems as summarized below:

- University rankings are often referenced by students, parents, government agencies, the media, and postsecondary institutions. The rankings provide direct information about postsecondary institutions and garner attention from stakeholders. Perspective students can easily use rankings as a reference point for determining prestige and can choose the most ideal educational environment for them (Hongcai, 2009).
- Rankings are viewed as the equivalent of the Good Housekeeping Seal of Approval, and students are easily able to gain insight as to which institutions may offer more value for their money. Rankings also inform government agencies in regard to the effectiveness of their policies and whether or not their monetary contributions in support of postsecondary education is being utilized effectively and as intended (Wildavsky, 2010).
- Rankings provide a measure to a nation that wants to gauge their progress in both quantity and quality of its institutions (Wildavsky, 2010). Government agencies and higher education systems use these comparisons to check their system's performance against other states or countries. Many policy makers determine their policies and allocate resources based on the rankings (Altbach, 2012).
- Rankings can act as a great leveler which allows individual institutions or programs to compare success or failure against competitors (Wildavsky, 2010).
- Rankings are an easily accessible way to measure performance of one institution against another. Use of ranking systems as a benchmark to analyze success or weakness is common among universities within a specific country. Global rankings have enabled postsecondary institutions to make comparisons worldwide (Altbach, 2012).

### **Disadvantages of the Ranking System**

A comprehensive review of the literature indicates the perceived disadvantages of global ranking systems as summarized below:

- Teaching is the main function of most postsecondary institutions and is largely ignored by all of the rankings due to the lack of comparable measures of quality within and across countries. Even though *THEWUR* has assigned indicators to measure the quality of teaching, they do not provide effective tools to measure the impact on learning. Hence, these measures are not prominent enough to be relevant for the global rankings (Altbach, 2012).
- Some illegal practices such as cold hard cash have been paid to incentivize administrators to influence an institution's standing. For example, in Australia several vice chancellors received salary bonuses to predicate on their success in order to boost their institution higher in the rankings (Wildavsky, 2010).
- Some American universities have been listed as a system rather than a single institution which has unfairly moved them up in the rankings (Altbach, 2012).
- Some ranking systems are known to change their methodology which may result in substantial up or down swings in ranking. The change in criteria makes it harder to engage in a reliable comparison or accurately measure performance over time with other institutions (Altbach, 2012).
- All of the rankings privilege research in some capacity and illustrate bias toward hard sciences which typically produce the most articles, citations, and research funding. The *ARWU* is considered to be the most precise in measuring different variables, but the humanities disciplines are still largely ignored. Postsecondary institutions with strong focus on hard sciences rank higher than other institutions that may be just as strong if not stronger in other disciplines (Altbach, 2012).
- Rankings illustrate an apparent bias toward English-speaking countries and give major western European nations significant advantages. Many of these countries allocate significant resources to attract top scholars and students from all over the world. In addition, most journals and databases are in English, thus postsecondary institutions that have English as a first language have an advantage (Altbach, 2012).

### **Self-criticism and limitations of the ranking systems**

From Beijing to Boston, university chancellors, presidents, government agencies, parents, and students analyze one or more of the ranking systems to make decisions (Altbach, 2012). These users are fully aware of the strengths and limitations of each ranking system. However, many users take at face value the ranking of specific institutions which may be a mistake. Ranking systems have their limitations and they measure only a small aspect of higher education value. Parents and students should make decisions based on best fit between their own interests and the institution, not just the perceived prestige of an institution (Altbach, 2012).

Global university rankings have been in existence for about three decades and have been under constant criticism. There is a lack of empirical evidence that ranking providers have taken serious steps to address much of the criticism (Soh, 2015). Researchers have engaged in studies to compare ranking systems and have overwhelmingly found them static and self-perpetuating. Rankers need to address methodological and statistical concerns to rectify their flaws. In addition, rankers need to consider various criticisms to render a better service to their clientele by regularly

reviewing and modifying their operations to improve and refine their rankings of the world universities (Soh, 2015).

## Conclusions

In conclusion, it is clear that postsecondary global rankings are referenced by many stakeholders for various purposes. Postsecondary ranking systems do provide a relatively simple means for stakeholders to compare postsecondary institutions, but stakeholders need to thoughtfully consider methodology, criteria, and indicators used to evaluate success so that an accurate understanding of what a given ranking actually represents is understood. Overall, various research related criteria and measures heavily influence the ranking of postsecondary institutions. Postsecondary institutions that do not value research as a primary part of their mission will not fare well in most global rankings. Stakeholders need to keep in mind that value takes many forms and that value is not necessarily exclusive to published postsecondary global rankings.

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# Beyond the Thaw: Fostering Fluidity in U.S - Cuba Academic Collaborations

Gabrielle Malfatti<sup>1</sup> and Xiomara Garcia Navarro<sup>2</sup>

University of Missouri, USA

<sup>1</sup>malfattig@missouri.edu

Universidad de Cienfuegos, Cuba

<sup>2</sup>xgarcia@ucf.edu.cu

## Abstract

José Martí, father of the Cuban independence, said, “like stones rolling down hills, fair ideas reach their objectives despite all obstacles and barriers. It may be possible to speed or hinder them, but impossible to stop them.” The free exchange of ideas and collaboration between Cuban and U.S. educators for mutual inter-cultural understanding is one such “fair idea,” one whose foundational objective ought to be reciprocal learning.

As the “thaw” period of normalization of relations between Cuba and the U.S. unfolds, larger groups of citizens from both countries are mobilizing to and fro. Among those are educators from universities who are seeking to establish academic collaborations as well as scholar and student exchange programs. President Obama’s renewal of portions of the Trading with the Enemy Act, which extends the economic embargo and blockade through September 14, 2017, hinders the possibility of traditional academic exchanges to be carried out as they are throughout the globe. Yet, “like stones rolling down hills,” the players in budding collaborations are striving to build momentum that would make such collaborations “impossible to stop.” One said budding collaboration is developing between the colleges of education at a regional university in Southern Cuba and a Midwestern research university in the U.S.

For centuries, the preparation of teachers has remained a localized enterprise and, at least in the United States, the great majority of teachers teach within 100 miles of where they were born or attended school. Opportunities for international educational experiences are also not common among pre-service teachers with less than 4% of U.S. education majors participating in study abroad and programs like the Fulbright Classroom Teacher Exchange Program that ran from 1946 to 2013 going inactive. However, quality education is being called onto the world stage to provide “the knowledge, values, competencies and behaviors needed for a globalized world, balancing local, national and global aspirations, reflecting cultural and linguistic diversity for equity, equality and quality of life, and for peace, freedom, solidarity, democratic citizenship, human rights and sustainable development” (de Leo, 2010, p.17). Article 13 of the International Covenant on Economic, Social and Cultural Rights, echoes the sentiment stating that: “Education shall be directed to the full development of the human personality and the sense of its dignity, and shall strengthen the respect for human rights and fundamental freedoms. Education shall enable all persons to participate effectively in a free society, promote understanding, tolerance and friendship among all nations and all racial, ethnic or religious groups” (in de Leo, 2010, p.8). If the promotion

of understanding, tolerance and friendship among all nations is to, indeed, be the goal of quality education, the teachers who impart education throughout the world are called to be agents toward these harmonizing goals at a global scale and will be well served to be prepared in programs that actively spouse these values and facilitate development opportunities toward them. Exposure to intentionally crafted international engagement and exchange prospects among educators and future educators from nations whose relations have been marked by strife can support the achievement of these goals.

As Cuba and the United States move through the normalization of relations, exchanges among educators have the potential of adding to the humanization and harmonizing of those relations. One of the main goals of educator exchanges is to move participants from a position of otherness to one of relatedness; this can only be accomplished in an atmosphere of mutual respect and active engagement. During October 2015, the first Taller de Alianzas Estratégicas para la Internacionalización de la Educación Superior (TIES) was held at a regional university in Southern Cuba. 24 U.S. institutions sent representatives and several collaborative initiatives stemmed from that first encounter; one of those between two colleges of education.

In this presentation, the Dean of Education from the Cuban institution and the Director of Global Engagement for the College of Education at the U.S. institution discuss their budding collaborations, opportunities, challenges and lessons being learned as their partnership develops.

### **Campus Visits**

In October 2015, the Director of Global Engagement from the U.S. based college of education attended the TIES event in Cuba and met with the Dean and several faculty from the Facultad de Ciencias Pedagógicas at the Cuban university. They began conversations about future collaborations and also met with representatives from the ministries of education that oversee both basic and higher education. Those conversations were followed by my multiple email exchanges during the subsequent months.

In April 2016, the Dean of the U.S. based college of education and three other faculty attended the Convocación Paulo Freire. Unlike the TIES event which brought together Cuban and U.S. institutions, this event brought together scholars from all over the world. Only two U.S. institutions were represented at the event. The conversations between the two deans further cemented the desire for collaboration and it was agreed that a Memorandum of Understanding would be proposed to promote faculty and student exchanges as well as scholarly collaborations.

In January 2016, the U.S. college extended an invitation and wrote letters of support for the visa petitions for four senior administrators from the Cuban institution to attend the NAFSA Annual Conference and visit their campus.

In May 2016, the four senior Cuban administrators attended NAFSA and presented various sessions about Cuban higher education and the budding collaborations with U.S. institutions.

In June 2016, representatives from the Cuban school visited the campus of the U.S. institution where they met with senior internationalization administrators and faculty in various departments.

### **Budding Collaborations**

#### *Teach abroad opportunity for U.S. pre-service teachers*

The two institutions are now seeking to establishing a teach abroad program for U.S. pre-service teachers in Cuba who have been prepared to support English learners. Following the model of an already existing program in India, these pre-service teachers will be mentored by Cuban teachers of English in K-12 classrooms. The U.S. students will focus on developing the fluency of the English Language Learners (ELL) while learning about the Cuban educational system and culturally contextual pedagogies and methodologies from the Cuban educators.

#### *Professional development for Cuban pre-service and in-service teachers.*

In consultation with the local schools and partner university, the accompanying U.S. faculty member will offer professional development tailored to the needs of the Cuban teachers and college students preparing to be teachers of English.

#### *Academic Collaborations*

Individual faculty members from the two schools are planning to work together in research projects and in presentations that advance the mutual understanding of each other's educational systems; their underpinning values, outcomes, best practices and challenges. The U.S. college is willing to explore opportunities to work together toward capacity building of Cuban faculty who want to partake in the global scholarly exchange which is dominated by submissions in English.

### **Opportunities**

Cuban institutions have established and maintained academic collaborations with international institutions for decades. While there are opportunities for bilateral collaborations between U.S. and Cuban institutions, there is also potential for the creation of multinational research teams. Since president Obama and president Raúl Castro's agreement opened a path for normalization of relations, academic institutions have flocked mainly to Havana proposing varied MOUs. In October 2015, the University of Havana was reportedly reviewing near 1000 MOUs proposed by U.S. institutions. Working with regional universities can spread those connections to other parts of the island. Collaborating with Midwestern U.S. institutions will give Cuban scholars access to a broader cultural perspective of the U.S.

### **Challenges**

Even after the period of normalization began, it was difficult for Cuban scholars to obtain visas to the travel to the U.S to attend conferences or visit institutions. It still remains to be seen how the Trump administration will move forward on the normalization of U.S. – Cuba relations. Given the effects of the embargo and the realities of Cuban economy, one-to-one scholarly exchanges of faculty and students are unlikely to take place due to the economic disparity between the two countries. Even as this abstract is submitted for

consideration, the presenters are looking for ways to fund the Cuban presenter's travel to the U.S. and participation in the conference.

### **Lessons Being Learned**

Over the last 18 months, we have begun what we hope is a long lasting and mutually beneficial collaboration. We've learned that mutual respect is paramount, that speaking the same language is an enhancing factor for relationship building, that reciprocity can take many forms and that the collegial and personal friendships born of this exchange are transformative for all involved.

We hope that our presentation will spark conversations about the future of U.S. – Cuba academic partnerships and especially about the importance of providing educators in the k-20 continuum with opportunities to truly get to know and understand each other.

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# Achievements and Challenges of a Small Private University in Thailand: A Case study of the Asia-Pacific International University.

Bordes Henry Saturne

Andrews University, USA  
bordes@andrews.edu

## Abstract

There are no studies exploring the development of international faith-based universities in the context of the fierce competition of the higher education market in Thailand. This case-study summarizes the history, achievements and challenges of a Christian private institution, the Asia-Pacific International University (AIU), established in Thailand and officially recognized by the government in 2009. The university has an enrollment of over 1,000 students out of the 2 million students enrolled in the 170 higher education institutions in Thailand. It has about 400 international students out of the total of 20,000 attending universities in Thailand. Some key indicators are quite promising: Full accreditation, modest but steady enrollment growth, vibrant student life, attractive modern campus, remarkable diversity, and improved financial standing. However, some factors pose a significant threat to AIU, including its small size, the country's political instability, the economic slowdown in the region, some serious governance issues, the unpredictable and intrusive government regulations, the increasing cost of maintenance, the excessive dependence on tuition and fees, and the competition characterizing the global higher education market (Praphamontripong, P. 2010; Singh, 2011; Kim, 2012; McBride, 2012). Andriga (2013) identified seven major causes of fragility among religiously affiliated institutions. Are they present at AIU? This study will conclude with some recommendations to mitigate the risks and maximize the potentials of this private institution. This case study has its limitations. Particularly, it will be unwise to generalize its conclusions. However, this in-depth study is a solid foundation for further inquiry (Hamilton, 2011; Yazan, 2015).

**Keywords:** international education, private universities, faith-based institutions, Thailand higher education

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# Why Do Chinese Students Say They Come to Canada to Study?

Glenn Rideout<sup>1</sup> and Sirous Tabrizi<sup>2</sup>

University of Windsor, Canada

<sup>1</sup>grideout@uwindsor.ca

<sup>2</sup>tabrizis@uwindsor.ca

## Abstract

The world is now seeing regular and constant cross-cultural movement of people, both an effect of and contributing factor to globalization. Education plays a significant role in this aspect of globalization, with many students travelling abroad to continue their education. In the Canadian education context, Chinese students are Canada's largest international resource. The literature reveals that Chinese students contribute to bilateral institutional relationships and people-to-people links between Canada and China. This paper reports on the increase in the number of Chinese students coming to Canada in recent years, and explores their stated reasons for wanting to study in Canada. Data in this study was derived from a survey which focused on reasons why Chinese students chose to study in Canada. The survey included 55 international graduate students across two faculties (Education and Engineering) at an Ontario, Canada University with a high international graduate student population. The paper reports that while many students come to Canada to improve their foreign language (English, French) skills, other reasons also influence such decisions. These include pressure from family in China to study abroad, and a personal desire not to remain in China. In the latter case, education may be seen as a means of legitimizing this desire. . The data also shows that students stated they chose Canada because they perceived it as a safe country, and were attracted by the quality and prestige of its educational institutions. As a second phase of this research, we intend to explore whether there was a difference between international students' stated reasons and their underlying or covert reasons for studying abroad.

**Keywords:** international education, why students study abroad, globalization and education

# Conceptions of Good Citizenship Among Majority and Minority Youth in Canada

L. Alison Molina-Girón

University of Regina, Canada  
alison.molina-giron@uregina.ca

## Abstract

Democracies around the world depend on the conscious and active participation of its citizens, youth included. However, recent research reveals that young people have turned away from electoral and other political forms of institutionalized participation (Bilodeau & Turgeon, 2015; CIRCLE, 2016; Pew Research Center, 2012; Turcotte, 2015). As a group, youth in United States and Canada have the lowest voter turnout rate, affiliation in political parties, and levels of political interest (Bilodeau & Turgeon, 2015; CIRCLE, 2016; Pew Research Center, 2012; Turcotte, 2015). Although gains have been made, participation is lower among youth who are poor and who belong to minority ethnic and racialized groups (Bilodeau & Turgeon, 2015; CIRCLE, 2016; Ladner & McCrossan, 2007). Some scholars have warned that such trends can lead to a “democratic deficit.” Others, however, have indicated that perhaps youth do participate in public life, but have shifted toward more direct, individualized and informal modes of participation including demonstrating, online activism, consumerism politics, volunteering and membership in civil associations (Cohen, Kahne, Bowyer, Middaugh, & Rogosky, 2012; Stolle, Harell, Pedersen, & Dufour, 2013). For many observers, this shift represents “an erosion of the activities and capacities of citizenship” (Macedo et al., 2005, p. 1; Theiss-Morse & Hibbing, 2005). However, for others, civic-oriented action gives citizens a direct voice and a chance to act on issues important to them, which in turn encourages political participation (Bennett, 2008; Cohen et al., 2012). Despite ample recognition of the importance of youth civic engagement, the question of how youth, especially minority youth, engage in the democratic process remains poorly understood.

This research investigates the conceptions of good citizenship that majority and immigrant minority students aged 15-18 have. How young people understand themselves as citizens largely influences the actions and behaviours the favour to participate in the democratic process. Of particular interest is to probe whether and the extent to which social justice is part of youth conceptions of good citizenship. Two questions drive this inquiry: (a) What are young Canadians’ understandings of being a good citizen? Are these understandings shared by ethnically/racially minority youth? (b) Do students’ understandings of good citizenship endorse a view of citizenship participation that seeks to influence decision-making to promote change?

To answer the research questions, I use Westheimer and Kahne’s (2004) citizenship framework to analyze youth’s dominant understandings of good citizenship and the ways they see themselves engaging in public life. In addition, I examined the discourses students mobilize when they justify deep-seated inequalities. Research findings reveal that for the most part majority and immigrant minority youth see themselves

participating in civic and political life in similar ways, including voting in elections and volunteering in their communities. However, there is an important difference between the two groups. Majority youth tend to believe that Canada is a fair, egalitarian country, and while they recognize issues of inequality, they consider them to be minor and somewhat acceptable. In contrast, immigrant minority students, while appreciating state-granted rights and freedoms, see poverty, racism, and discrimination as serious problems our democracy faces. Further, only youth who recognize standing issues of social justice see citizenship action as a mechanism to affect social change.

### **Methodology**

In this exploratory case study, I report on data from individual and focus group interviews with 25 youth aged 15-18 (data drawn from a larger study, Author, 2012). 9 were majority and 16 were immigrant minority students. Majority students are those who they and both parents were born in Canada, and who identify themselves as White. Minority students included eight 1.5 generation immigrants, or foreign-born students who arrived in Canada while or before age 15, and eight second generation immigrant students; youth who are Canadian born, but whose both parents were born outside Canada. Student interviews lasted between 15-40 minutes, followed a semi-structured format, were tape-recorded, and then transcribed.

### **Research Findings**

To elicit students' understandings of good citizenship, they were asked questions like: Who is a good citizen? What do good citizens do? How young people like you can effectively participate in society? To probe whether students had a social justice stance, they were asked: In Canada, are there any issues of injustice?

Research findings reveal that majority and minority students have similar conceptions of citizenship, and overall they endorse a participatory conception of good citizenship and devise different avenues to participate in public governance. Of 9 majority students, 7 have a participatory conception of good citizenship compared 2 students who regard citizenship as acting responsibly. Similarly, out of 16 immigrant students 9 have a participatory conception, compared to 7 who endorse a personally-responsible conception of good citizenship. Youth with a personally-responsible conception of citizenship see themselves as contributing members by obeying the law, helping others and the community. This citizenship conception is well captured by Suzanne. 'A good citizen' she affirmed, 'knows about the country, how it is run, and is aware of what is going on even if they are not always active'.

While most students understand citizenship in participatory terms, only a few have a justice-oriented citizenship stance – probed by students' identification of issues that challenge Canada's democracy. Of 9 majority students, 7 recognized justice-related issues, but only 4 considered a direct relation between democracy and creating more just societies. 6 majority students contended that Canada is a fair, egalitarian country and while social issues exist, they are minimal. In contrast, 10 out of 16 minority students named poverty, discrimination and racism as long-standing societal problems, which they often experience. 9 out of 16 immigrant students have a justice-

oriented conception of good citizenship. What is different in students who have a justice-oriented conception of citizenship is a stronger sense of citizenry participation to affect societal change. Adana, for example, explained 'I learned... not be afraid, to stand up and speak out for what I believe or when I see stuff happening... If you keep quiet, what's the point? Nothing's going to happen'.

The findings of this research are significant. If interrogating the structures that create and maintain inequity is not part of youth's conceptions of good citizenship, our young citizens may perform public-spirit actions, but this engagement may fall short of advancing a more equitable and just society (Theiss-Morse & Hibbing, 2005; Westheimer & Khane, 2004).

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# International Students' Perspective on the US Election

Nadia Awaida-Nachabe

University of South Florida, USA  
nadia8@mail.usf.edu

## Abstract

International student enrollment has continually increased in the US for the past 15 decades reaching over 1,000,000 in 2015/2016. Research indicates that international students positively contribute to the globalization efforts in higher education, promoting diversity and fostering collaboration. International students frequently face many mental and emotional struggles transitioning from their home country to America. What is the impact of the US 2016 election on the perceptions of international students? How do international students translate Trump's presidency? What are its implications on their academic and social engagement? This qualitative study explores the impacts of the US election on the perceptions and performance of an international student sample in the US.

**Keywords:** international education, international students, diversity, higher education, adult education

In this global era, higher education institutions have been contending for approaches to implement globalize their campuses. Higher education institutions have been consistently using international student enrollment as a measure of globalization. International student enrollment has been steadily growing since 2000 (US News, 2014). According to Project Atlas (n.d.) the total number of international student enrollment reached a record high of 974,926 in 2014-2015. International students contribute to the American economy paying an annual rate of almost \$20 billion.

International students frequently face many struggles transitioning from their home country to America. Many of which are mental and emotional challenges. International students are like sojourners, journeying between-societies and cultures (Ward, Bochner, and Furnham 2001). Hofstede (1984) defines culture as *the collective programming of the mind*. As International students travel from a familiar culture to another this *programming* undergoes shock and stress while concurrently transitioning to a new culture and life.

Transitioning successfully into a host culture can be hindered by various scenarios. One, immigration policies and travel regulations instituted for International students with the purpose of protecting America from terrorism (Galloway & Jenkins, 2009). Another hurdle is discrimination. When interacting with strangers or people who are different, people tend to have negative expectations (Brown, 2009). Cultural differences are considered a basis for biased treatment (Ebinger, 2011). Muslim women who wear veils have negative experiences and difficulty integrating into campus life (Lee & Rice, 2007). Asians have increased stress compared to others due to language and cultural factors. (Lin & Betz, 2009). Non-Caucasian international students are likely to have more

difficulties adjusting to college and interacting with the student body. Ebinger emphasizes that discrimination leads to low confidence, weakness, and depression, common in many sojourners even when it takes the form of meanness and dismissiveness (2011).

Long before the 2016 presidential campaign and election, higher education institutions have been set in their efforts to internationalize their campuses and graduate globally competent students who celebrate diversity and learn from differences. The promises of Donald J. Trump particularly related to immigration policies, “extreme vetting”, the Muslim ban, DACA, sanctuary cities, and the Mexican wall deliver a contentious message to the core values of international education. Ramsay et al. affirms that student’s emotional and social well-being is tightly connected to their positive adjustment and feeling welcomed (2007). International students should be able to understand the new culture and its citizens and have confidence in their skills to create relationships (Olivas & Li, 2006).

International student success is achieved through strong on campus participation/involvement, psychological well-being, and academic standing/performance (Taylor & Pastor, 2007). These are the characteristics of international students who embark on their journey and successfully adjust into the new environment. International students who successfully adjust are the ones that are able to balance themselves with the new environment (Ramsay et al., 2007; Hannigan, 1990). Feeling at home in the host setting validate improved academic performance, interaction with the host culture, and satisfaction with the new living.

### **Purpose**

The purpose of this qualitative research is to explore the views of international students post the 2016 US election in relation to academic engagement, cultural adjustment, and sense of belonging.

Three questions driving this study

1. What factors are associated with international students’ satisfaction with their academic engagement in the US?
2. Did these perceptions change with the US 2016 election? In what ways?
3. What are the short and long-term implications of these perceptions on learning, student success, and cultural adjustment?

### **Sample**

The sample will be a group of international students. A total of 6 students will be identified through personal/professional contacts.

### **Instrumentation/Procedure**

Interviews will be conducted with each international student. A brief demographic information form regarding the age, education and overseas experience will be given to each participant. This will be followed by an interview consisting of 6 questions on

academic engagement and performance, cultural adjustments, the US elections and implications. Answers will be analyzed to spot thematic similarities.

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# Well-being and Happiness: Identifying ‘Basic Psychological Needs’ Within a Local Culture

Martin Lynch<sup>1</sup> and Nailya Salikhova<sup>2</sup>

Warner School of Education, University of Rochester, USA  
<sup>1</sup>mlynch@warner.rochester.edu

Institute of Psychology and Education, Kazan Federal University, Russia  
<sup>2</sup>Nailya.Salikhova@kpfu.ru

## Abstract

What are the key ingredients required for well-being and happiness? Within the framework of Self-determination theory, this question is addressed in part by the concept of basic psychological needs, or BPNs. The aim of the present study is to investigate BPNs idiographically, within the context of a local culture. To date almost all research on basic needs has taken place nomothetically: the relevant constructs have been defined drawing upon Western traditions in philosophy and psychology, scales designed to measure the constructs have been validated and their psychometric properties tested primarily on Western samples, and the majority of empirical studies investigating basic needs have taken place in the context of Western cultures, primarily North American. This has changed in recent years as researchers have begun to test claims about the universality of basic needs in cross-cultural studies. The nomothetic approach, while consistent with best practices in the quantitative tradition of research, overlooks the possibility that other things might emerge as essential ingredients for well-being (that is, as ‘basic needs’) if one were to approach members of other cultural groups more idiographically and qualitatively. The present study seeks to address this issue. Under funding from a Fulbright teaching and research grant, 250 practicing teachers (local experts) from the Republic of Tatarstan completed Russian-language qualitative and quantitative measures reflecting their views on what children need in order to grow up psychologically healthy and happy. Using an adapted Q-sort technique for the qualitative responses to open-ended questions and a statistical analysis of respondents’ rank-ordering of a set of 26 candidate needs culled from the literature, results are compared with the SDT perspective on basic needs. Recommendations are made for next steps in the cross-cultural research of basic psychological needs.

**Keywords:** basic psychological needs, teacher perceptions, idiographic and nomothetic approaches, self-determination theory

# Reflections of 2012 New Education Act on Education System and Special Education in Turkey

Hakan Sari

Necmettin Erbakan University, Turkey  
hakansari@gmail.com

## Abstract

Turkey, which is a very fast developing country, had two significant education acts and then reforms in the last two decades. In 1997, with the 1997 Education Act, the compulsory education period decreased from five years to eight years education with the unification of primary school (five years) and secondary school (three years). In 2012, 2012 New Education Act, compulsory education changed from 8 years to 12 years, as three times four years education in other words, 4+4+4. Primary education reduced from 5 years to four years, secondary school increased from three years to four years, and all the high school programs included 4 years education. In this presentation, the following questions will be answered: what happened after the new education act in 2012 in the Education system and special education in terms of organisation, the compulsory years the students should attend from nursery schools to the high schools? After the new education Act in 2012, the new legislations 652 were adapted in the light of the Turkish Constitution, the number of general directorates reduced from 22 to 16, the new 4+4+4 system, 12 years in total, was initiated in all programmes in Turkey. Each individual should complete 12 years of education which is free and compulsory in the new 4+4+4 education system. In other words students are obliged to take 12 years of education between 6 and 18 years, if something happens s/he can make extend up to 21 years old. Annually, 1.5 million student graduate from High schools every year but %95 percent of them attend public/ government schools. Pre primary schools are optional for the age group of 3 and 5 who have not reached the age of compulsory primary education. Primary age group is between 6 and 9 years old which is free and compulsory in state schools. Secondary school age group is between 10 and 13. Four years of High school education is for the age group of 14 and 19 which is free and compulsory in state schools as well. After the twelve years of compulsory education, students have to take Exam called as YGS-LYS and each year more than 2.5 million students attend this exam to be able to enroll the university which includes from two years to 6 years education, namely from two years colleges to 6 years medical schools. Teacher training programmes takes four years in 102 Education faculties. Each year seven hundreds fifty thousand students can enrol the universities. There are more than 185 universities in Turkey. All special education institutions initiated twelve years compulsory education. In the mean time General Directorate for 'Special Education and Guidance Services' in the Ministry of National Education in Ankara, changed in itself organisation in which newly and first time seven units were founded for the specially gifted and talented children. The General Directorate consists of seven units in its organisation such as a unit for the gifted and talented children and six more. The detailed information about the new education and special education systems will be presented in the Congress.

**Keywords:** special education, Turkish education system, inclusion, constitution, legislation

# Bologna Process Policy Implementation Within the Context of Teacher Education in Ukraine

Benjamin Kutsyuruba

Queen's University, Canada  
ben.kutsyuruba@queensu.ca

## Rationale and Context

As there is no uniform pace for countries to implement the proposed changes, there exist Bologna leaders and laggards (Börzel, 2003). Countries with the established systems of higher education, such as Italy, Spain, and Germany, are taking a longer time, while most of the former Eastern Bloc countries have enthusiastically embraced reforms (Charbonneau, 2009). Since the announcement about Ukraine's intention to sign the protocol to join the Bologna Declaration in 2005, both European and Ukrainian educators voiced concerns about the impact of the Bologna Process on the country's higher education system and its integration with EHEA (Artyomenko, 2005; Kotmalyova, 2006). After Ukraine joined the EHEA, Bologna Process quickly became one of the mechanisms for the Ukrainian government to achieve its goal of reforming the system of higher education in line with European standards (Stepko, 2004). As officially reported to the UNESCO European Center for Higher Education, the top priorities of education policy in Ukraine have become further development of the national education system, its adjustment to new economy, and its integration into the European and global community (Kremen & Nikolayenko, 2006). These goals initiated a series of declarations and efforts toward implementation of reforms in the field of higher education in Ukraine. The government expressed commitment to an international effort to harmonize higher education by redesigning the curriculum, switching to a three-cycle degree structure, and submitting to cross-national mechanisms of quality assurance (Clement, McAlpine, & Waeytens, 2004; Kremen & Nikolayenko, 2006).

The picture that emanates from the Ukrainian government reports and policies and official Bologna Process documentation (e.g., Bologna National Report Ukraine, 2009; Bologna Stocktaking Report, 2009; Ministry of Education and Science, 2010; Nikolayenko, 2007) is that Ukraine has become, in Börzel's (2003) terms, one of "leaders" in the implementation of Bologna Process provisions. However, researchers have pointed to the discrepancies between official reports and practices, as well as inconsistencies of Bologna Process implementation in Ukraine (Shaw, 2013; Shaw, Chapman, & Romyantseva, 2011). Furthermore, despite the fact that there have been multiple studies problematizing the implementation of Bologna Process across the contextual mosaic, the recommendations issued by international organizations continue to obliterate or ignore the local needs of signatory countries. Hence, implementation efforts within the post-Soviet context are further complicated. We envision these complications, discrepancies, and inconsistencies as indicative of a tension of *stated vs. actual outcomes*, a dilemma that virtually all policymakers grapple with in any policy development and implementation process.

## **Bologna Process Policy Implementation in Ukraine**

Summing up the discussions in this paper is the sentiment that “there is no “one size fits all” answer to the question on the role of the Bologna Process for the so-called transition countries (Zgaga, 2009); local national realities and circumstances always need to be taken into account to understand the implementation of this process in individual countries of EHEA. Or, in the words of Kvit (2012), ‘to understand the way things work in Ukraine, one must remember that it is a post-Soviet state with its own features that cannot be compared to any other system in the world.’ Designed to meet the needs of a centrally planned economy, the Soviet Ukraine’s education system had been characterized by high funding for education, high literacy levels, a majority of graduates with solid basic knowledge, a large core of skilled workers available for the industrial sector, and cultural and scientific achievements. However, the post-Soviet systemic problems remained, characterized by declining quality of education and low efficiency (World Bank, 2011).

Today, Ukrainian educational system, including teacher education, is undergoing a reform informed by a new policy rhetoric which is in turn an “ emergent hybrid [of] communist-neoliberal rationality” built on the ideas of national identity and consciousness, “catch[ing] up with a developed Europe,” and market economy (Fimyar, 2010, p. 85). In her analysis of Ukrainian educational policy documents, Fimyar showed how policy rationalities – which underlie discourses that inform educational reforms – point to the departure from the old ‘Soviet’ educational system and its realignment to catch up with Europe. The implementation of the Bologna Process can be viewed as one of the strategies to align and harmonize a Ukrainian higher education system closer with European standards and thereby modernize educational structure and content, educational governance and quality monitoring system of higher education. The state has taken the rhetoric of restructuring of European higher education for granted and presented it as an inevitable process (see Fejes, 2008; Nóvoa, 2002) for the educational reforms in Ukraine. Yet, as discussed in this paper, despite the new policy rhetoric, its implementation or practice has been rudimentary and inconsistent.

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# Cultural Diversity Awareness of Turkish Teachers in Classrooms

Yahya Han Erbas

Literacy, Culture, & Language Education  
School of Education  
Indiana University-Bloomington, USA  
yahyahan@gmail.com

## Abstract

The Republic of Turkey has become more diverse than ever. According to a United Nations International Immigration Report (2015), roughly 20 million people immigrated in 2014, and Turkey served as “the largest refugee-hosting country worldwide, with 1.6 million refugees” (p.2). In another report, the United Nations International Children’s Emergency Fund (UNICEF) (2017) noted that nearly half a million Syrian refugee children are going to Turkish schools, which means that, since June 2016, there has been a 50% increase in the number of continuous refugee students in the country. These results indicate that classrooms in Turkish schools all over the country host a tremendous number of refugee students.

Because immigration movements have increased in recent years, it has become necessary to work on how people, especially teachers, assess societal differences. This assessment has also become necessary in Turkey because of the country’s changes in population demographics. These demographic changes do not only affect society at large; they also affect the cultural structures of classrooms. Examination of teachers’ awareness of diversity and the implications of this awareness in classrooms will help teachers to encourage students’ academic achievements.

Researchers in the United States have frequently employed the Cultural Diversity Awareness Inventory (CDAI), which has been translated into other languages so that foreign teachers’ awareness of diversity in their classrooms could be examined (Barnes, 2006; Henry, 1986; Larke, 1990; Yeung, 2006; Ting 2009). For this study, the researcher used the Turkish translated version of CDAI, which has never been used or tested regarding its reliability. The Cronbach’s alpha score of total items for reliability is 0.758. According to Tavakol and Dennick (2011), many researchers have reported that acceptable values of Cronbach’s alpha score should be between 0.7 and 0.95. Based on this recommendation, the Cronbach’s alpha score shows that the translated version of CDAI provided acceptable reliability.

In this study, the researcher investigated the cultural diversity awareness of 171 teachers – 65 male teachers and 106 female teachers- all of who are from Turkey. For this investigation, the researcher used a Cultural Diversity Awareness Inventory (CDAI) survey, which was created by Gertrude B. Henry in 1986. According to Henry (1986), this survey is designed to examine teachers’ behaviors, beliefs and attitudes regarding culturally diverse students in their classrooms. The inventory includes 28 items, and the participants responded to each item using a 5-point Likert-type scale (e.g., 5 = strongly agree, 4 = agree, 3 =neutral, 2 = disagree, 1 = strongly disagree). Additionally, nine

items of the inventory required reverse coding. This inventory consists primarily of five sub-groups: general cultural awareness, culturally diverse families, cross-cultural communication, assessment, and creating a multicultural environment. In addition to gathering results via the five sub-groups of CDAI, this study also examined the cultural awareness of teachers based on demographic information. This demographic information consisted of gender, level of education, number of years teaching experience, teachers' major courses of study, the regions in which the teachers work, and the region where the teachers culturally belong. The present study was based on the following research question: To what extent are Turkish teachers aware of diversity and multiculturalism in current Turkish classrooms? To understand Turkish teachers awareness of diversity and multiculturalism, the researcher used frequencies and percentage of descriptive statistics.

Demographic information was collected from each teacher response to address questions about gender, years of teaching experience, educational level, region of employment, and region of personal cultural belonging. Based on the demographic information provided, most participants were in the following groups: female teachers (62%), between 1-5 years of teaching experience (42.2%), bachelor's degree (78.4%), Marmara Region of employment (30.4%), and the Central Anatolia Region (with regard to cultural belonging) (33.3%). Results of the study indicated that while general cultural awareness and cross-cultural communication scores of female teachers are higher than those of male teachers, culturally diverse families, assessment and creating multicultural environment scores of male teachers are higher than those of female teachers.

More specifically, from each CDAI sub-group, the following sample items from the findings are provided. In the general cultural awareness sub-group, one item indicated that while 55.7% of female teachers claim that their culture is different than that of students, 37% of male teachers indicated that their culture is different than that of the students in their classrooms. Additionally, in another item, 86% of female teachers reported that they are not surprised when students, who come from diverse backgrounds, contribute to school activities. Among the male teacher respondents, 83% reported that they are also not surprised when those students contribute to school activities. The sample item from the culturally diverse families sub-group indicated that 80% of male teachers would establish communication with parents outside of school activities; however, only 72.6% of female teachers would establish communication with parents outside of school activities. Another sample item from the cross-cultural communication subgroup showed that 55% of male teachers believed that the Turkish language should be taught as a second language to students whose mother tongue is other than Turkish; however, 82% of female teachers believed that Turkish language should be taught as a second language to those students. Results of an item from the assessment sub-group indicated that 49.2% of male teachers would refer students for testing if the perceived learning difficulties appeared to be rooted in cultural or language differences. Similarly, 49.1% of female teachers would refer students for testing if the perceived learning difficulties appeared to be based in cultural or language differences. The final sample item from the creating a multicultural environment sub-group indicated

that while 57% of male teachers believed that teachers and schools are responsible for teaching cultural differences, 54.7% of female teachers believed that teaching cultural diversity in public schools is the teacher's responsibility.

**Keywords:** cultural diversity awareness inventory (CDAI), multicultural education, awareness of diversity in Turkey, Turkish teachers.

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# Missed Opportunities for U.S. Study Abroad Students

Yunjeong Choi<sup>1</sup> and James Moyer<sup>2</sup>

College of Education  
University of South Florida, USA  
<sup>1</sup>yunjeongchoi@mail.usf.edu

John H. Sykes College of Business  
The University of Tampa, USA  
<sup>2</sup>jamiemoyer622@gmail.com

## Abstract

Over 1 million international students are enrolled in U.S. higher education, making up a little over 5% of the entire U.S. higher education student body (Open Doors, 2016). At the University of South Florida, international students are 10% of the enrolled (USF System, 2016). The U.S., however, lags behind other nations in originating international students, sending fewer than its GDP and population would suggest. Nations such as Nigeria, Iran, Kazakhstan, Saudi Arabia, Morocco, Vietnam, and Malaysia individually send nearly as many international students as does the United States (OECD, 2013). Germany, France, Russia, Italy, China, India, South Korea, and Turkey originate more international students than the U.S. does (OECD, 2013).

Currently, the U.S. is missing study abroad opportunities in three significant ways. First, too few Americans study abroad. Just 1.55% of American students engage in a study abroad opportunity in any given year (NAFSA, 2015) and only 10% of American undergraduate students have a study abroad experience at any point while completing their degree (Open Doors, 2016). Notably, over 60% of those experiences last just 8 weeks or less (Open Doors, 2016). Long-term study makes up just 3% of American study abroad experiences (Open Doors, 2016). Second, minority students are significantly underrepresented in study abroad programs. African American students make up almost 15% of the U.S. student body but take part in only 5.6% of study abroad opportunities (NAFSA, 2015). Similarly, Hispanic and Latino Americans make up over 16% percent of the U.S. student body, yet participate in less than 9% of study abroad opportunities (NAFSA, 2015). Third, study abroad experiences are narrowly focused on Europe. More Americans choose Europe for studying abroad than all other locations combined (NAFSA, 2015). Almost 40% of Americans who study abroad do so in the UK, France, Spain, or Italy (Open Doors, 2016), overlooking vital choices like Japan, India, Brazil, the Middle East, and sub-Saharan Africa.

Study abroad organizations in the southeastern United States report observing several factors that may limit some U.S. students from studying abroad. First, insufficient family wealth seems to contribute to a decreased participation in study abroad experiences. This may partly explain why socioeconomically disadvantaged groups take part in fewer study abroad opportunities. Second, lack of significant domestic or international travel experience by the student seems to reduce a willingness to participate in study abroad programs. Third, parental or caregiver attitudes also seem to impact student decisions. For example, parents or caregivers may view overseas travel with negative attitudes,

seeing it as wasteful, dangerous, frivolous, or unnecessary. Parents and caregivers may encourage nonparticipation due to these attitudes. Fifth, some students who lack foreign language proficiency seem to be concerned about travel to and within non-English-speaking countries. Sixth, some students seem to doubt the value of overseas study, citing concerns about earning college credits or receiving quality instruction while abroad. Finally, the study abroad organizations themselves may also limit the participation of students in programs. Budget constraints, time limitations, concerns over possible negative student behavior while overseas and other considerations may lead study abroad programs to limit participation to select students. These limitations originating with the programs themselves may partly explain why U.S. students on average take short trips. Taken as a whole, these factors may be impacting U.S. student participation in study abroad opportunities. Each should be researched further.

Studying abroad is valuable for Americans individually. Beyond the obvious contributions to foreign language proficiency, study abroad experiences may develop intercultural proficiency and openness to cultural diversity (Clarke III, Flaherty, Wright, & McMillen, 2009). The language skills alone can contribute to a boost in earnings for workers (Saiz & Zoido, 2002). Recent research shows the benefits of study abroad experiences as impactful across several key psychological attributes (Earnest, Rosenbusch, Wallace-Williams & Keim, 2016). Study abroad experiences appear to boost students' emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy (Earnest, Rosenbusch, Wallace-Williams & Keim, 2016).

Studying abroad is valuable for the United States as a whole. Skills and attributes gained through study abroad experiences can contribute to improved international economic competitiveness, enhanced soft power influence, and strengthened national security (NAFSA, 2003). Study abroad experiences can also boost the overall foreign language skills of the U.S. and help the United States better understand other nations (NAFSA, 2003).

NAFSA's Strategic Task Force on Education Abroad candidly states "America's ignorance of the world is now a national liability. Americans in vastly greater numbers must devote a substantive portion of their education to gaining an understanding of other countries, regions, languages, and cultures, through direct personal experience" (NAFSA, 2003, p. iv). The United States should recognize that study abroad experiences, particularly long-term study abroad programs, are vital to both individuals and the nation. Therefore, governmental, educational, and non-profit policy should prioritize narrowing the gaps in study abroad outcomes. Minority students and socio-economically disadvantaged student groups should be incentivized to pursue study abroad opportunities. Additionally, students should be incentivized to choose study abroad opportunities in underrepresented locations, particularly those deemed to have heightened economic, cultural, or political impacts on the U.S. in the medium to long-term.

**Keywords:** study abroad, international students, long-term study abroad

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# Hiding or Out? Lesbian and Gay Educators Reveal Their Experiences About Their Sexual Identities in Their K-12 Schools

Steven D. Hooker

Watson College of Education  
University of North Carolina Wilmington, USA  
hookersd@uncw.edu

## Abstract

This qualitative study explored the ways in which lesbian and gay educators, in the Midwest part of the country, negotiate their sexual identities in their school settings. Ten gay and lesbian public and Catholic school educators from rural, suburban, and urban schools were interviewed. The purpose of this study was to determine how gay and lesbian teachers negotiate their identities and how those negotiated identities affect their relationships in their school communities. Four gay and lesbian teachers and two gay administrators from public schools were interviewed about their experiences in their school settings. Additionally, a focus group of five Catholic school educators, from two different schools, was conducted. Each of these educators negotiated their sexual identities differently within their school communities; however, descriptors such as age, experience level, and school setting did not affect their identity negotiation. Most of these educators were unable to negotiate their sexual identity with their teacher identity due to fear of intimidation and discrimination, or being fired. The only exceptions being when they cautiously negotiated their sexual identities with a few of their colleagues. This raises questions about school policy and school culture for the inclusion of gay and lesbian individuals in schools.

**Keywords:** gay and lesbian educators, school policy, inclusive school culture, relationships within school communities

## Introduction

Over the past 10 years, lesbian, gay, bisexual and transgender (LGBT) issues have been openly discussed during election campaigns; the *Don't Ask, Don't Tell* policy has been eliminated, same-sex marriages have been legalized, and many television programs now feature at least one gay man or lesbian character. Additionally, the federal government, as well as many public and private companies, have policies that prevent discriminating against LGBT individuals. Nevertheless, discrimination against homosexuals may be the last form of bigotry that is considered acceptable. "Current federal, state, and local laws, and voluntary corporate policies, are insufficient to address the pervasive discrimination against gay and lesbian individuals" (Pizer, Sears, Mallory, & Hunter, 2012, p. 715). While discrimination against other marginalized groups in school settings is now illegal, discrimination against sexual minorities is a common practice (Bishop, et al., 2010).

## Homophobia in Public Schools

Despite the vast changes to our social landscape over the past few decades, the K-12 educational institutions still remain patriarchal, heteronormative systems. There are

exceptions for many differences including gender, race, ethnicity, and religion in school policy, yet the lesbians and gay men are not part of that protected class. Wright (2010) argues that despite progress, “schools continue to struggle with how to improve experiences for LGBT students. Yet school leaders struggle even more with acknowledging and improving the experiences of LGBT educators” (p. 50). Sexual orientation discrimination is still permitted in many school districts across the United States. As some researchers have noted, “**teachers** who are of the sexual minority (**gay**, lesbian, or bisexual) must remain closeted or risk losing their jobs” (Bishop, Caraway, & Stader, 2010, p. 84).

### **Homophobia in Parochial Schools**

While public school educators are submerged into an institutionalized heteronormative setting, Catholic school gay and lesbian teachers experience deepened levels of discrimination from the religious ideology in their homophobic school settings. Most lesbian, gay, and bisexual teachers chose to work at Catholic schools because of their religious beliefs, but they also saw conflicts between their religion and their lifestyles (Maher & Server, 2007). These teachers experienced oppression and feared coming out to students, despite the belief that it might benefit their teaching. They also held the belief that they would not be supported by their administrators (Maher, 2003). Unfortunately, many religions not only decry the gay lifestyle, but have specific policies and practices which condemn homosexuality.

### **Literature Review**

#### **Identity Negotiation**

Teaching is negativity associated both with “public debates about the recognitions of LGB lifestyles with school curriculums and the perceived reactions of parents and other to their children having a lesbian, gay, or bisexual teacher” (Beyond tolerance, 2009, p. 20). In their report, the *Equity and Human Rights Commission* found that only 51% of lesbians, 52% of gay men felt comfortable about being open about their sexual orientation, without fear of discrimination, in their educational environments (Beyond tolerance, 2009).

Jackson (2006) conducted a study to identify the contextual factors that promote or prohibit the construction of identities as gay teachers. She interviewed nine K-12 gay and lesbian teachers four times each and conducted a focus group. She found that contextual factors contribute to and inhibit the amalgamation of gay and lesbian identities with teacher identities, and what she refers to as “gay teacher identity development process” (Jackson, 2006, p.27). Many factors interacted with each other to influence classroom practice. “Coming out served to bring two major aspects of participants’ identities together, being gay and being a teacher, aspects they previously viewed as irreconcilable” (Jackson, 2006, p. 31). acceptance of homosexuals. “All of these factors interact to impel or impede growth as gay or lesbian teachers” (Jackson, 2006, p. 40).

Unless males, regardless of the heterosexuality or homosexuality status, “can pass as masculinist leaders, the gendered expression, they may have difficulty in being hired” (Lugg, 2003, p. 118). In 2009, DeLeon and Brunner studied the experiences of LGBT school administrators. They found that “when participants had early fears of being outside the accepted norm and fear for their personal safety on a daily basis, several LGBT administrators spoke of turning to assimilation and silence” (p. 164). They learned to negotiate their identities through silence in the environment of heteronormativity and privilege (DeLeon & Brunner, 2009).

In 2001, Maher found that words like “denial” and “repression” were used when interviewing gay and lesbian students and staff in Catholic high schools (p. 108). Mr. Alberts, a gay male counselor in a Catholic high school, agreed with the use of words like denial and repression to describe his experience (Maher, 2001). According to Mr. Alberts, “It’s like taking a part of your being and closing it off in scar tissue and setting it aside. You can never feel whole. You feel like there’s a hole in your feelings, thoughts, and being, your spirituality is never addressed” (Maher, 2001, p. 108). Nearly all of the educators Maher (2001) interviewed agreed that homosexuality was rarely or never presented in the curricula at their schools, making gay men and lesbians invisible in society.

“Father Coleman would demand that a teacher in a Catholic school keep secret the fact that he or she is homosexual” (Gumbleton, 2001, p. 19). These educators are encouraged to accept and love themselves for who they are, and be confident that God loves them (Gumbleton, 2001). However, forbidding gay and lesbian educators from teaching authentically, unreservedly insinuates that there is something wrong with them (Gumbleton, 2001).

### **Relationship Formation and Maintenance**

In 2008 Mayo analyzed two set of complex relationships in school. One relationship was between gay teachers and their students, while the other was the relationship between those same gay teachers and their colleagues. He found that the “gay teachers in this study addressed gay students’ needs and demonstrated support in a variety of ways, despite working in school settings that often held a hostile perception of the GLBT community” (Mayo, 2008, p. 1).

Davis (2005) a seventh and eighth grade language arts and social studies teacher in California stated that he was prepared to respond to questions about his sexual orientation. He had not thought about how he would respond when one of his students asked about his marriage status. He thought about what he had been told to say as a standard response: “That’s a personal question and personal questions are inappropriate” (p. 25), fearing what repercussions might occur.

In Mayo’s (2007) study of seven gay men who taught in public and private schools. Their ages ranged from 26 to 54 and they taught in grades 6-12. Only one participant was openly gay to colleagues and students at school. Others had chosen to come out to only some of their colleagues. “Overall, the informants perceive guarded, cordial

relationships with their colleagues, where professionalism and teamwork, combined with privacy and discretion, have become the norm at school” (Mayo, 2008, p. 7).

Another study examined eleven heterosexual adults who had an openly gay teacher two decades earlier. Rofes (2000) found that adolescents with openly gay teacher did not experience extreme concerns about the situation. One finding suggested that an openly gay teacher is more of an issue for adults and parents, than it is for children; and that “having a gay teacher was not a defining part their school experience” (p. 410).

Macgillivray (2008) conducted a study to show how some of his former high school students reacted to and were affected by having an openly gay teacher. Eight former students: “five heterosexuals, one gay male, one lesbian, and one subject who identified as bisexual” (Macgillivray, 2008, p. 76). There were three main themes for the LGB students: “being comfortable with oneself, always know they were LGB, and being pleased that other students began to change their views about gay people” (Macgillivray, 2008, p. 78). He found that having an openly gay teacher did not cause his straight students to question their own sexual orientation. This was consistent with Rofes’ (2000) findings.

## **Methodology**

This IRB-approved qualitative study involved interviewing six public school and five Catholic school educators, who were gay men and lesbians, from a Midwestern area of the United States, considered part of the Bible belt, in 2010. The participant’s ages ranged from 27-62 and their years of experience ranged from 4-37 years in education.

The focus of this research was to explore the experiences of public and Catholic school teachers and administrators who identify themselves as gay men or lesbian. This section provides a description of the methodology for this qualitative research using interviews and a focus group. The findings from this qualitative research reveal an insight and understanding about how gay and lesbian teachers and administrators negotiate their identities in their school environments, and how it affects their relationships in their school communities.

The first stage of the research, the individual interviews, was completed over a four-week period. All interviews and the focus group were scheduled off school grounds, at a time and place that was convenient for each participant. I recorded the individual interviews, as well as focus groups and transcribed the tape recordings. Each subject was then sent the transcription to review and approve prior to it being analyzed for my research. None of the subjects requested that their transcript be changed, even when it included thoughts of lust and desire or condemning their administrators or colleagues.

Six individual educators, four teachers and two administrators in public schools, were interviewed. Once those interviews were complete, and the themes and specific categories had been identified, they were used to develop the focus group discussion prompts. The comments from those discussions were compared to the individual interview responses in an attempt to identify patterns and themes among all gay and

lesbian educators. All participants were asked to tell their stories about their relationships and experiences as either an open or closeted gay or lesbian K-12 educator. A narrative analysis includes in-depth interview transcripts, life history narratives, historical memoirs, and creative nonfiction (Patton, 2002). "Narrative studies are also influenced by phenomenology's emphasis on understanding lived experiences and perceptions of those experiences" (Patton, 2002, p. 115).

### **Participant Selection**

The participants for this study were contacted through private social functions, homosexual rights marches, personal acquaintances, and civic organization contacts. Participants were personal acquaintances who were contacted asking them to participate in a research project investigating ways they negotiate their sexual identities in their school settings, and how it affects the relationships they form in their schools. Specifically identified were individuals from elementary and high schools, as well as rural, suburban, and urban schools. Also considered were those who are practicing teachers, administrators, and coaches to have a variety of perspectives represented in the study. Another characterizing feature recognized was the years of experience and age, as well as the number of Catholic and public school educators. The final determining factor was the gender of the educators, as both men and women needed to be represented in the study to see if the experiences of lesbians was different from those of gay men in the educational settings.

Four teachers and two administrators, who self identify as gay and lesbian educators, with whom I was socially acquainted, informally agreed to be interviewed about their experiences in their school communities. In addition to the six interviews, a focus group was conducted to gather data for this research study.

Originally, one teacher in the metropolitan Catholic school system, contacted his gay and lesbian colleagues within the school systems and asked them to participate. I asked him to identify no fewer than four and no more than six individuals who self-identify as gay, lesbian, bisexual, or transgender teachers who would agree to be part of the focus group discussion. If they agreed, they were given my contact information and asked to contact me directly. The Catholic school teacher participated as we had discussed gathering four of his gay and lesbian colleagues for the focus group.

The interviews and focus group provided the data for this research study. The participants' responses were recorded and transcribed. "Each transcription was written just as the individuals had spoken, including any slang, dialects, or pauses offered by the subject" (Berg, 2007, p. 162). The questionnaire responses were subjected to content analysis to identify emergent patterns and themes in the responses. "Qualitative data need to be reduced and transformed in order to make them more readily accessible, understandable, and to draw out various themes and patterns" (Berg, 2007, p. 47).

## **Findings**

This section introduces the findings from the urban, rural, and suburban, public and Catholic school educator interviews and focus group discussions used to collect the data for this study.

### **Participant Interviews and Focus Group Descriptions**

As mentioned previously, individual interview participants for this study included two administrators and four teachers, and the Catholic school focus group included three teachers and two counselors. For the reporting of their stories, pseudonyms have been given to each subject, along with a few general characteristics of each subject.

Pseudonyms have been also given to the educator's partners or colleagues if they were mentioned by name during the interview or focus group discussion.

These are participants from public schools that were interviewed. Robert is 55 years-old and was a rural gay public school elementary administrator until 18 months ago, when he was fired after the superintendent learned he was a gay man. He was a teacher for five years at the elementary level, and then became an elementary school principal for 23 ½ years. Susan is a 32-year-old lesbian high school math teacher in a rural school district. She has spent all 10 years of her teaching career in the same position. Richard is a 56-year-old gay junior high and high school teacher in an area that has changed from rural to suburban during his 31 years of teaching in the same school district. Adam is 44 years old and was a gay elementary school principal last year and this year works in district office as the transportation director. Adam spent 11 years teaching at the elementary level, and eight years as an elementary school principal prior to becoming the districts transportation director. George who is 45 is a gay first grade teacher in an urban school environment for a large school district. He has been teaching for nine years, and has been in the same position all nine years of his teaching career. Teaching was a second career for George, after spending 15 years in the printing business. Edward is a 27-year-old gay special education teacher in a suburban high school. He has been teaching for four years, all in his current position. All of these educators represented six different school districts.

The Catholic high school focus group included Rose, a 61-year-old lesbian teacher; Dennis, a 51-year-old gay counselor and boys' soccer coach; Scott is a 39-year-old, White gay religion teacher; David, a 62-year-old gay teacher; and Michael is 31 and a gay counselor and football coach. All of the participants were Caucasian, with the exception of Michael, who is African-American. Race, however did not affect the findings in any way.

The two themes that emerged from the individual interviews: identity negotiation, how open they can be and the challenges they face if they are out; relationships, who are the subjects open with and whether that affects their relationship. Those two themes were then used to guide the Catholic school focus group discussion.

## Identity Negotiation

All participants in the research expressed varying levels of identity disclosure in their school environments citing fear as a major reason.

Richard, a 56-year-old, gay school teacher did not have the opportunity to hide his identity. He claimed that "During the late '80s, I was very active in the gay community. I even appeared on the gay television program *Out Front*." It was during this time that some of the students in the school saw the program and began talking about him being on the program but were not associating it with his homosexuality. "I ran a very successful theater program. I stopped running the theatre program in '93." Richard went on to explain that it was the same year that he attended the Gay Rights March in Washington, D. C., which also happened to be the year his 8<sup>th</sup> graders took their class trip to Washington. As he was carrying the "Ohio Banner," on the outer edge of the marching group parading down the street, his 8<sup>th</sup> graders walked down the sidewalk on their tour of the city. That Monday when he returned to school, the principal and superintendent met him at the door, claiming he had been seen at the gay rights march and a lot of parents were upset. "I was told that if I had been asked if I was gay, I had to lie about it, and that was probably one of the most frustrating things I've ever had to do."

Susan, a 32-year-old lesbian teacher, has been told by her administrator to hide her sexual identity as much as possible. "My colleagues know about my partner, but my students generally don't. I believe that those students who need to know, who need a role model, realize." She is, however, not able to be public about it in general. She is not able to speak about it because there have been parents who called and wanted their children removed from her class when they found out she was a lesbian. "My administration prefers my discretion."

One distinction between Richard and Susan is the level of support each received from his and her administration. While Richard received no support when parents called and complained, Susan's principal, while asking her to be discrete about her homosexuality, did support her when parents chose to make an issue about her being a lesbian and mother. Only two of the teachers interviewed for this study claimed to have support from their administrators regarding the issues related to their homosexuality. Most heterosexual school administrators do not believe that their sexual orientation influences their administrative practice (Capper, 1999), however many gay and lesbian teachers might disagree.

Adam, a 44-year-old administrator, however told a much different story about the negotiation of homosexual identity. "I can say that I don't believe anything has been a direct result of my sexual orientation. Who's to know. I will tell you that I've always lived my life openly and never tried to hide anything." He stated that he never dated women and never claimed to have a girlfriend or allude to anything that would cause anyone to believe that he did. "Certainly there will always be people who have their views, but I can say that people with whom I've confided about sexual orientation have been very supportive." Adam was however removed in the middle of the year as an

elementary school principal, when the district superintendent learned that Adam was a gay man.

Robert, a 55-year-old administrator, had a very different experience in negotiating his sexual identity. He commented that he lived in constant fear being a gay administrator. "Living in constant fear and trying to fit in. I know there were probably some homosexual students that I could have helped, but I knew I couldn't. I knew I couldn't be who I really was or it would be professional suicide." He stated the self-hatred, self-loathing, and keeping his sexual identity quiet caused him to function in a state of constant fear. He also lost his job when his superintendent learned about his sexual orientation.

The Catholic school educators negotiated their identities more cautiously than the public school educators. When asked about how they cope with their homosexual identities within the conservative establishment of a Catholic school environment, there responses were somewhat varied. Rose struggles with her identity more than others. She comments, "I am not out, as a lesbian teacher here. I'm professional in how I deal with all of my colleagues. In the classroom, for instance kids will call me Mrs. (Smith), and I don't stop them or correct them."

Michael, an African-American Catholic school counselor and football coach, described how he felt being a gay educator. "There's just so much more restriction. I see that it's a bigger issue than the color issue. It affects me on a daily basis." He claims that while everyone else has a sense of freedom, he feels like he has to put up a wall that's constantly around him and he's filtering everything that comes out of my mouth.

When these subjects were asked how they would describe what it has been like for them to be a gay or lesbian educator. They were asked how their personal fear affected them in being open as they established and maintained relationships with others in their school communities.

Robert described it as living two different lives, elaborating about how he feels, "Very schizophrenic – I've had to lead a split life, personal vs. professional. It affects my own sense of accomplishment. It's so exhausting." There were times when he felt like he was being forced back into the closet again. "It's so uncomfortable on a daily basis." He states that "if straight teachers have affairs it's no big deal, but him dating another man is catastrophic. I'm constantly filled with fear."

Robert was the only educator participating in this study that expressed his oppression as a factor in his career. Adam, however, claimed that his sexual orientation does not make him feel differently in a school setting noting, "I suppose it's like being a straight educator. My sexual orientation doesn't define me in a way that I feel any different than anyone else."

George and Edward both felt that there were not an excessive number of challenges and burdens attached to being gay teachers. Edward's challenge seemed more a

frustration than a challenge, commenting, “A challenge is that I’m not able to fully connect with some of the students. There are some students that are gay, and I have to draw a line of professionalism about how to confide in them.”

Richard had most likely experienced the most threatening challenges and burdens for being an openly gay teacher stating, “It’s been a constant struggle with the principal. I’ve had death threats, harassing phone calls, a brick thrown through the window of my home (with a note – ‘die fags’), my car tires have been deflated.”

Relating to the issue of anxiety and isolation, Rose emphatically commented, “There is anxiety and isolation as a lesbian educator. My partner and I have gone through numerous emotional days. She’s tired of me saying I feel bound by not being out, because she is out at her workplace.”

Scott, a Catholic school religion teacher, expressed extreme anxiety and fear at the idea of being an openly gay teacher. “I am in an environment where there is some very overt homophobia, in a very major way.” After he came out, there was another teacher who teaches recovery therapy, and he challenged him on that and it caused a huge episode and after three years he still claims that his questioning him defamed his character, threatening to sue me. “So that’s the kind of environment I work in.” Scott went on to express just how much anxiety he does feel in his Catholic school setting.

Dennis, while not in the same school, agreed noting, “As out as I am, I do feel like there are restrictions on myself and I have to be careful. It does create a lot of stress and anxiety.” So yes there is fear, there is anxiety, it is something he thinks about.

Educators working in public school settings seemed no less traumatic than those working in Catholic schools. Robert felt there were multiple challenges and burdens associated with being a gay administrator, as he described the anxiety and isolation he felt. “It made me somewhat depressed. I wasn’t really happy with the idea that I couldn’t be myself. When we had Christmas parties and other events, I could be who I really was, it was frustrating.” But he knew that in itself would be a death sentence for him and his career.

When the other subjects were asked if he felt he could be fired for being gay, Dennis the Catholic school counselor and boy’s soccer coach, claimed he had a great amount of fear of being fired for being gay. He went on to say that everyday when he walks into the building, he thinks about it. “I have had alumni and parents ask for my job. I’ve been told to keep quiet (about my sexual orientation) by the administration, over various issues.”

### **Relationship Formation and Maintenance**

All of these educators admitted being out to some of their colleagues, and some even their administration within their school communities. When asked whether they were out to their students, colleagues, administration, and families, their responses varied from individual to individual, but even some varied within the same Catholic school community.

When asked about how out she was to her students/colleagues/parents of your students and family, Rose responded, "I'm out to many of my colleagues but not all." She went on to state that they have had conversations and they are understanding, and are friends of hers, but she is not out to their kids.

The Catholic school educators also expressed varying levels of openness in their school communities. Mayo's (2008) study with seven gay male teachers found that only one participant was out to his entire school community, but all of the participants were out to some of their colleagues. David feels like he's open to everybody. "I've had students who will approach me and ask me where they can go to find some support, so apparently my persona is like an accepting gay person. Whether gay or straight some of the students talk to me."

One participant in Mayo's (2008) study claimed that he has taken a watchful eye approach, as he has noticed the need for some type of a safe zone, a gay friendly area for students struggling with their sexual identities. David did mention that many of the teachers and administrators in his Catholic school did have human rights/equal rights (=) stickers on their doors, but claimed that did not mean that students or staff members could feel safe talking about homosexuality in those rooms.

Although Rose teaches in the same school setting as David, she does not feel like she can be as open with everyone. Rose had claimed that everyone just assumed she was heterosexual. While there may be some negative effects of coming out to students, many of the accounts of teachers who have come out, as well as those who have had gay or lesbian teachers, indicate that the effect is positive, as it helps others come out (Jennings, 2005). Scott, a religion teacher in a Catholic school said, "I did come out a few years ago to my faculty. I just assumed that people knew. I'm 39, and single, people should be able to connect the dots and figure it out. Kids don't ask questions."

Participants in Mayo's (2008) study identified opportunities to form relationships with their colleagues in an attempt to combat feeling isolated.

Robert, who was eventually fired for being gay, commented, "Quasi-out with a few select faculty members. It was never really spoken about specifically, but I had a couple that I knew were supportive". He claimed that when his partner died in the spring of 2003, a few of his colleagues offered their condolences and were supportive.

Richard, however, is out to everyone in his school community, despite his administration's disapproval. He stated, "I'm just out to everybody in the community. It's no secret that I'm gay. I'm openly gay. I have a rainbow sticker on my car. I've had one for years." When he first put the sticker on his car, his principal told him to tell the students that he just liked rainbows, if he were asked.

George, who has a contract which protects him from being fired for being a gay man, noted that he was very comfortable being "openly gay" to everyone in his school community. Even Edward is not threatened by being openly gay, commenting that he

doesn't tell everybody, but if they asked he would have no problem being honest with them.

Robert, a rural school ex-administrator, never experienced that comfort level that others expressed having with her colleagues. When asked if he ever felt comfortable bringing his partners or boyfriends to school functions or social events, Robert explained, "No, I never brought my partner to any school functions. I never felt comfortable doing that."

While many of these educators were out to some of their colleagues and administration, most were not out to students or school community families. Jackson (2007) found that teachers "viewed disclosing their gayness to students as the real mark of coming out at school" (p. 68). Three educators involved with this study claimed that they and their partners were invited to social events with their colleagues, and were comfortable attending school functions with their partners.

Another question about these educators' relationships focused on how they dealt with anti-gay comments or jokes, in regard to how well their colleagues, administrators, and students respected them as homosexuals. These educators would not hear anti-gay comments or jokes if they were valued as individuals. Relationships determine how we speak and what we talk about with others. A true friend or trusted colleague or administrator will not allow others to speak to you or about you in a pejorative way.

Robert, the ex-administrator, commented, "At first, I did like a lot of people do, I laughed and walked away. I didn't publicly comment when they were made." Later, however, he said he did become defensive, "claiming that I had a gay family member, and I didn't appreciate those comments. When students made comments, I treated them as any other derogatory slur against any child with the intention of putting someone down."

Susan agreed with Robert about how to handle anti-gay comments from students noting, "The same way I deal with any inappropriate comments. They have no place in the classroom." When asked about comments from colleagues, she merely claimed "it hasn't happened."

Richard felt the same way about comments from his colleagues stating "I don't really hear anything from my colleagues anymore." Regarding student comments, he agreed with many of the other educators. "I tell students that it's inappropriate and try to take advantage of teachable moments when I can. I don't have a problem with letting a kid know that I find *that's so gay* insulting." Many of the educators consider anti-gay comments or jokes comparable to any other type of harassing comments students might make to one another.

Adam also attempts to make anti-gay comments into teachable moments. "I take anti-gay comments from kids toward one another very seriously. And when I take them very seriously, I have to be very careful about how I explain that to children." He explains it that some kids may find it hurtful and offensive to them. He explains that we are all very different, and you watch the news and you know that there are gay people. "Some men

live with men and women live with women. I'm not telling you how to believe, I'm just telling you that the differences exist, and sometimes people get their feelings hurt because you say something hurtful."

George, who teaches first grade, told me he "Uses anti-gay comments or jokes to create teachable moments, whether it's about the word gay, or a race issue, we take the time to talk about it." Edward agreed regarding the derogatory comments from students, "I correct the student and tell them it's inappropriate. I don't take it personally, because it isn't directed at me. I would handle it just as I handle any inappropriate comment." He did, however mention that when his colleagues make these hurtful comments or jokes, he just considers them ignorant, as they unaware of the hurtfulness of their comments.

These educators would not hear anti-gay comments and jokes if they received support from their school communities. When the school system stands as a united front in ending anti-gay jokes and comments, then gay and lesbian school community members will feel safe to be open about the sexuality (Goodman, 2005).

However clear it may seem that all of these gay and lesbian educators negotiated their identities differently, they all did so to some extent. There seemed to be a much greater variation on how those identities affected their relationships with their colleagues, administrators, students, and school community families.

## **Conclusion**

Each of the six educators interviewed and each of the five participants in the focus group negotiated his/her identity differently. There were some differences in the identity negotiation of the rural, suburban, and Catholic school environment educators, as the urban educators seemed more at ease with being out at school. There was, however, no connection between years of experience as an educator and ease of being out at school.

It was however apparent that how the educators' negotiated their sexual identity did affect their relationships. The teachers who felt more guarded about their sexual identity were less likely to be open to other members of the school community, being open with only a few trusted colleagues. One of the participants, George, expressed the need to be out in school as it allows others to see that "we are not the stereotypes that they have perceived, seen on TV, or heard about. That we are good teachers, and can lead normal lives; they can see reality, that we are not different because we are homosexual." Edward expressed that he's aware that there are those who think he "shouldn't teach because he's gay," but he just attributes that to a lack of knowledge about homosexuality.

Many of these educators expressed anxiety about taking a significant other to school functions for fear of how their presence might be perceived. A participant in Mayo's (2008) study claiming to be open to everyone in his school community, never attended school events with his partner or took his partner to social functions with his colleagues.

This participant claimed, “the fact that I don’t socialize with the rest of the faculty is probably due mostly to the fact that I wouldn’t feel comfortable. I don’t trust some of them” (p. 9). When teachers must choose between their teacher identity and sexuality identity, “they hide their sexual identity because anything related to sexuality is deemed inappropriate for children in the school setting” (Keyser, 2015, p. 443).

To be sure, there are lesbian and gay teachers, counselors, and administrators working in the K-12 school systems. This research provides data illuminating how important a safe and supportive school environment for all staff members is in providing a productive school atmosphere, as teachers who live in constant fear of being outed as a gay man or lesbian distracts from an educator’s responsibilities. Just as DeLeon and Brunner (2009) found that as a form of coping with the fears of being out or being outed, educators choose to assimilate and remain silent, because as Bishop, et al. (2010) found the fear of being openly gay or lesbian educators produces fear of job loss and exclusion, even in the most liberal of schools.

Additionally, Goodman (2005) stated gay and lesbian school community members will not feel safe to be out about their sexuality until the school system takes as a united front against anti-gay jokes and comments. The educators in this study agreed, but most also agreed that many of their colleagues and administrators will not agree to such a unified effort. While these educators in this study, as well as other educators not in the study, but with whom I have spoken to, agree that being out in their school communities is absurd. The fear that these teachers spoke about when negotiating their identities, is common among gay men and lesbians working in K-12 school systems. Until school districts are safe for all gay and lesbian students and employees, and there are policies in place to protect against harassment and being fired, fear will continue to keep many of the gay and lesbian educators closeted.

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# The Relationship Between Middle School Students' Mathematical Understanding and Math Anxiety-apprehensions

Yasemin Kaba<sup>1</sup> and Sare Şengül<sup>2</sup>

Education Faculty  
Kocaeli University, TURKEY  
<sup>1</sup>yasemin.katranaci@kocaeli.edu.tr

Atatürk Education Faculty  
Marmara University, TURKEY  
<sup>2</sup>zsengul@marmara.edu.tr

## Abstract

Understanding is a repetitive phenomenon and a result of the movement of thinking between layers. Mathematical understanding, on the other hand, tried to be explained within the framework of the dynamic growth theory of mathematical understanding. Development of mathematical understanding is an active process involving mathematical structures and actions. Why do not students understand mathematics? What are the reasons for this? The desired understanding may not occur because the students cannot form the required connections in their minds or they form incorrect connections with regard to the subject. These reasons lead to failure in mathematics. According to the studies, there are various factors causing difficulties for the students to learn and understand mathematics. These include gender, self-confidence, problem-solving abilities, learning styles, attitude towards mathematics, and math anxiety. Math anxiety is dealt as the most important problems of math learning. Math anxiety-apprehension is defined as an uncomfortable feeling experienced when performing a mathematical task, which is seen as an obstacle to learning mathematics. The aim of this study is to investigate relationship between middle school students' mathematical understanding and math anxiety-apprehensions. In addition to this, possible relationship was analyzed according to gender and grade levels variables.

The relational screening model was used. In the relational screening models, it is aimed to determine existence and the degree of the relational difference between two or more variables. The study was carried out with 466 (210 female and 256 male) middle school students. The study group include 15.02% (n=70) 5<sup>th</sup> grade students, 36.27% (n=169) 6<sup>th</sup> grade students, 24.89% (n=116) 7<sup>th</sup> grade students and 23.82% (n=111) 8<sup>th</sup> grade students. Determining the Mathematical Understanding Levels Scale (DMULS) and Mathematics Anxiety-Apprehension Survey (MAAS) were used as data collection tools. DMULS's Cronbach alpha reliability coefficient is ".972". MAAS's Cronbach alpha reliability coefficient is ".890". The sub-dimensions of MAAS Cronbach alpha coefficients was seen as ".819" for the positive attitudes towards mathematics and ".878" for negative attitudes towards mathematics. As the 0.70 or higher reliability coefficients are considered enough for the reliability of the test points, the obtained reliability coefficients were found acceptable. It was tested whether the obtained data would be analyzed with parametric or non-parametric techniques. For this purpose, the hypothesis that "the distribution of the data must be normal or close to normal" was

tested. The compliance of the data with the normal distribution was examined by means of the tests used in normality issues. Considering that Kolmogorov-Smirnov (K-S) should be used when the study group is larger than 50 (N=466), this test was used in determining the normality of the data. As a result of the analyses of both DMULS and MAAS data, it was determined that the data do not have a normal distribution, including the sub-dimensions of MAAS. For this reason, it was decided that the data must be analyzed by means of non-parametric tests. In the next step where the data were sorted out, Spearman correlation, “Mann-Whitney U (MW-U)” and “Kruskal-Wallis (KW)” tests were used. While MW-U test was used in gender-based analyses, KW test was used in grade-level based analyses. In all statistical analyses, the significance level was accepted as “.05”.

According to the results of the study, there was a significant strong positive correlation between middle school students’ mathematical understanding and math anxiety-apprehension. As mathematical understanding is an indicator of mathematical success, the research supports the result that “there is a strong relationship between math anxiety-apprehension and success”. The reason why students have high-level apprehension though they are successful in mathematics can be attributed to the exams. It is a known fact that the schedules are often changed, the teachers do not have a good command of these new schedules and they are not informed enough. This may affect the students and hence they may have high-level anxiety though they are successful. The teachers’ effect on the student anxiety can be examined and the ways to decrease anxiety-apprehension level can be researched.

It was seen that there was a significant strong positive correlation between both female students’ and male students’ mathematical understanding and math anxiety-apprehension. Additionally, results revealed no significant differences between students’ mathematical understanding and their math anxiety-apprehension with respect to gender. That mathematical understanding differs by gender contradicts with the previous studies. The similar aspect is related to the fact that female students’ mathematical understanding is higher than that of male students. In all the studies, it was seen that the mathematical understanding points of female students were higher than that of male students. That math anxiety does not differ by gender shows parallelism with most of the previous studies.

There was a significant strong positive correlation between both 6<sup>th</sup> grade students’ and 8<sup>th</sup> grade students’ mathematical understanding and math anxiety-apprehension. Besides, there was a significant moderate correlation between both 5<sup>th</sup> grade students’ and 7<sup>th</sup> grade students’ mathematical understanding and math anxiety-apprehension. Finally, results revealed significant differences in both students’ mathematical understanding and their math anxiety-apprehension with respect to grade levels. That mathematical understanding differs significantly by grade levels shows parallelism with the previous studies. All of the studies including this research claim that mathematical understanding decreases as the grade increases. This may result from the difficulty of the questions on each grade level. For this reason, it is important to provide activities for the students so that they can understand mathematics, enrich the lessons with

mathematical games and choose strategies that will enable understanding. In addition, it would be beneficial to carry out some studies investigating the reasons for the gradual decreases in understanding. It was found out that 6<sup>th</sup> grade level students have the highest anxiety points. This occurred in 7<sup>th</sup> and 8<sup>th</sup> grade students with a lesser amount. As a result, it can be interpreted that as the grade level increases, a decrease occurs in the anxiety levels. The reason may be attributed to the fact that the students get older and learn to cope with mathematics in a better way. However, it should not be ignored that the students feel anxiety and hence its solutions should be looked for. Considering the abstract feature of mathematical subjects, it can be beneficial to concretize them as much as possible.

**Keywords:** mathematical understanding, anxiety-apprehension, relationship, middle school students

# The Effect of Realistic Mathematics Education on 6<sup>th</sup> Grade Students' Skills of Using Operational Estimation Strategies for Verbal Estimation Problems

Sare Şengül<sup>1</sup>, Yasemin Kaba<sup>2</sup> and İlknur Ayvalı<sup>3</sup>

Atatürk Education Faculty  
Marmara University, TURKEY  
<sup>1</sup>zsengul@marmara.edu.tr

Education Faculty  
Kocaeli University, TURKEY  
<sup>2</sup>yasemin.katrancı@kocaeli.edu.tr

Tuzla İhsan Hayriye Middle School  
İstanbul, Turkey  
<sup>3</sup>ilknurayvalı@yahoo.com

## Abstract

The purpose of this study is to explore the effect of realistic mathematics education on 6<sup>th</sup> grade students' skills of using operational estimation strategies for verbal estimation problems. The research has been designed as the pre-test post-test control group. The research participants are conducted of 63 7<sup>th</sup> grade students attending a middle school on the European side of Istanbul. The experimental group students were taught through 17 activities based on "Realistic Mathematics Education (RME)" approach, whereas the control group students were taught through the activities contained in the textbooks and workbooks. The students exposed to the RME activities were required to create the models themselves, while the students using the activities in the textbooks and workbooks were given ready-made models. The data of the research were collected by use of "Word Problems Prediction Test (WPPT)" composed of 10 open-ended questions, which was developed by the researchers. For data analyze were applied frequency and percentage. Teaching through RME approach was found to be more effective, when compared to current system teaching, in improving students' success in operational prediction and diversity of the strategies they use. In the light of the findings of this study, the researchers have developed suggestions for those who will conduct further researches.

**Keywords:** realistic mathematics education, operational prediction strategies, fractions

## Introduction

Mathematics is defined as the knowledge of four operations and calculations by those who are not directly involved in it, whereas it is a way of inventing new theories and theorems for mathematicians. For scientists and engineers, mathematics is a set of operations which they apply for their own fields of study. However, it is a difficult subject to cover for students. On the other hand, for some students, it is a perfect platform to prove their success (Karadağ, 2012). A farmer uses daily mathematics to distribute or market his produce and measure his land while a mason uses it to see whether the wall he has built is straight. Similarly, small retailers use daily mathematics for the

commercial operations they make. People using daily mathematics in their lives do not make theoretical calculations but engage rather in practical mental calculations. The results they obtain through these calculations are the closest to the ones obtained through theoretical calculations (Erdem, Gürbüz, & Duran, 2011). Measurement estimation refers to the size of an object or a group of objects (length, weight, volume, etc.) (Clayton, 1993). Most of the adults estimate the sizes in their daily lives. Population estimation involves measuring a countable quantity (a group of objects) (Brade, 2003). It refers to the number of objects in a group (Clayton, 1993). Dowker (1992) defines operational estimation as significant estimations regarding approximate responses to arithmetic problems without making real calculations. This study dwells on operational estimation.

Operational estimation refers to finding a proper approximate answer for arithmetic problems before calculating the precise answer (Lemaire & Lecacheur, 2002). For example, it is used to find an approximate and quick answer to an arithmetic problem like the following:  $\frac{6.49 \times 98.73}{81.7}$  (Clayton, 1993). Therefore, operational estimation refers

to a process or a skill that combines various operations to arrive at a conclusion (Smith, 1993). Operational estimation is a mathematical cognition field for which students employ various strategies. These strategies vary in terms of frequency and practice types. In addition, students select their own strategies and practice types for this field. Previous studies indicate that students employ strategies like “using first and last digits”, “rounding down to one-down decimal”, “distribution”, “arrangement-adjustment”, “readjusting the operations”, “calculating the average (grouping)”, “induction”, “random estimation strategies”, “rearrangement of numbers”, “compensation strategies”, “using concurrent numbers”, “intensively concurrent number strategies”, “being able to use the numbers that can be rounded”, “grouping based on available knowledge and experiences”, and “making mental calculations”, which have been analyzed in many studies (Boz, 2012; Çilingir & Türnüklü, 2009; Crites, 1992; Dowker, 1992; Levine, 1982; Reys, Rybolt, Bestgen, & Wyatt, 1982; Reys, 1986; Reys, Reys, & Penafiel, 1991; Reys, Reys, Nohda, Ishida, & Shimizu, 1991; Rubenstein, 1985; Tekinkır, 2008).

Though there are many studies dwelling on computational estimation strategies for fractional operations and factors regarding computational estimations, there are few studies on teaching these strategies conducted in countries other than Turkey and there is no study at all carried out in Turkey regarding the subject. This study seeks to reveal the effect of mathematics instruction via Realistic Mathematics Education (RME), designed taking into account students’ daily life activities, on teaching estimation to find the results of fractional operations, which are one of the challenging subjects of mathematics. In this vein, this study will analyze the effect of RME on 6<sup>th</sup> grade students’ skills of employing operational estimation strategies for verbal estimation problems. To this end, the research questions below are tried to be answered.

1. Is there a significant difference between the control and experimental group students’ achievement levels in terms of verbal estimation problems before the instruction?

2. Is there a significant difference between the experimental group students' achievement levels in terms of verbal estimation problems before and after the instruction?
3. Is there a significant difference between the control group students' achievement levels in terms of verbal estimation problems before and after the instruction?
4. Is there a significant difference between the experimental and control group students' achievement levels in terms of verbal estimation problems after the instruction?
5. What is the variety and frequency of the strategies employed by the experimental and control group students in verbal estimation problems?

## Method

### Research Model

Pretest-posttest control group experimental design was employed in the study. In this model, there is an experimental group under the influence of an independent variable and a group which is not under the influence of such a variable. For testing the hypotheses, the scores changing from pretest to posttest obtained by both groups are compared to see whether there is a difference (Bulduk, 2003; Christensen, 2004).

### Study Group

The study was conducted with the control and experimental groups composed of 6<sup>th</sup> grade students from three classes in a middle school in Tuzla, Istanbul. Convenience sampling method was employed. The control and experimental groups were ensured to consist of equal students. There are 17 female and 14 male students in the control group, while there are 18 female and 14 male students in the experimental group. That is to say, there are 63 participants in total.

### Data Collection Tools and Collecting the Data

**Verbal Problems Estimation Test (VPET):** It was used as a pretest and posttest. It is a test made up of 10 open-ended questions about the acquisition, "*They estimate the results of fractional operations using the strategies*", which belongs to the 6<sup>th</sup> grade learning domain of fractions. To ensure the internal validity of the test, three field expert academics evaluated the questions in terms of their suitability to the strategies.

Reliability coefficient of the test was found to be 0.678. Levine's (1982) scoring system was used to score the responses. If the estimation is within the deviation range of less than 10%, the score is assigned as 3; if it is within a range from 10% to 20%, the score is 2; if it is within a range from 20% to 30%, the score is 1; and if the deviation is more than 30%, the score is assigned as 0. The tests were presented to the students in written format. They were asked to respond individually. 25 minutes were given to the students to finish each test. The tests were implemented by the researcher.

### Experimental Group Instruction (*Instruction Activities Based on RME and Their Implementation*)

17 activities based on the acquisition, "*They estimate the results of fractional operations using the strategies*", which belongs to the 6<sup>th</sup> grade mathematics course learning

domain of numbers, were prepared in accordance with the basic principles of RME. Experts were consulted, and relevant modifications were made. In RME, learning mathematics is considered as a social activity. Education offers an opportunity for students to share strategies and discoveries with each other. Students form opinions to improve their thoughts by listening to what others have discovered and discussing them. Moreover, interaction activates thinking skills to achieve higher-level comprehension (Van den Heuvel-Panhuizen & Wijers, 2005). The experimental group including 32 participants was divided into eight groups with four members. Hence, the groups were heterogeneous within themselves and homogeneous with other groups. The students carried out the activities individually, and shared their solutions with their group members later. Afterwards, one person from the group explained his opinions to his friends in other groups. In this interactive teaching, students are engaged in explaining, reasoning, agreeing, disagreeing, questioning the alternatives, and thinking. These kinds of activities make students less dependent on teacher evaluations of their actions as correct or incorrect. Thus, students develop confidence in using mathematics (Zulkardi, 2002). The activities were prepared in such a way that they would enable the students to evaluate and discuss different estimations.

### **Teaching in the Control Group**

Learning environment for the control group students was different than the one designed according to RME. The instruction was conducted with the teacher's book recommended by the Ministry of National Education of Turkey as well as the textbook and workbook in use. While the students were expected to create their own models in RME activities, the ready-made models were given in the examples included in the textbook and workbook. This is contrary to the RME activity principle. As there were more subjects to cover with the experimental group students, the rest of the classes for the control group were supported with problem solving and general review.

### **Data Analysis**

The scores the students got from "Verbal Problems Estimation Test" as pretest and posttest were analyzed using SPSS package on computers. Data normality was tested by Kolmogorov-Smirnov Test. The data that did not show normal distribution were tested by Mann-Whitney U test. Whether or not there was a significant difference between the control and experimental groups in terms of relevant variables was tested at the level of  $p < .05$ . The variety and frequency of the strategies used by the students for verbal estimation problems were analyzed in frequencies and percentages.

### **Results**

The first research question is for whether the instruction based on RME influenced the students' achievement regarding verbal estimation problems. The first sub-question of the study questions whether there is a significant difference between the experimental and control group students' achievement levels regarding verbal estimation problems before the instruction. The experimental and control group students' pretest VPET scores were compared to find an answer to the question. Pretest VPET scores were compared via Mann-Whitney U test. The test results are shown in Table 2.

**Table 2:** Experimental and Control Group Students' VPET Pretest Scores

Groups	N	Mean Rank	Total Rank	U	P
Experimental	32	4.50	1060		
Control	31	1.50	956	460	.610

Table 2 shows that there is no significant difference between the experimental and control group students' VPET pretest scores as  $p=0.610$  value is greater than 0.05. For the second sub-question of the study, the experimental group students' VPET pretest and posttest scores were compared via Wilcoxon Signed Rank test. The results are given in Table 3.

**Table 3:** Experimental Group Students' VPET Pretest and Posttest Scores

Tests	Ranks	Mean Rank	Total Rank	Z	p
VPET Pretest-Posttest	Negative ranks	2.50	5	-4.685	0.00
	Positive ranks	16.43	460		

Table 3 shows that there is a statistically significant difference between the experimental group students' VPET pretest scores and posttest scores ( $p=0.00<0.05$ ). Accordingly, it is possible to say that the instruction based RME, which was offered to the experimental group students, had a significant influence on the students' estimation skills for verbal problems. For the third sub-question of the study, the control group students' VPET pretest and posttest scores were compared via Wilcoxon Signed Rank test. Table 4 shows the relevant results.

**Table 4:** Control Group Students' VPET Pretest and Posttest Scores

Tests	Ranks	Mean Rank	Total Rank	Z	p
VPET Pretest-Posttest	Negative Ranks	11.38	148	-0.392	0.695
	Positive Ranks	14.75	177		

Table 4 shows that as  $p=0.695>0.05$ , the control group students do not have any significant difference between their pretest and posttest scores. This result may be indicative of the fact that the instruction offered to the control group did not have any significant influence on the students' estimation skills regarding verbal problems. For the fourth sub-problem of the study, whether there is a significant difference between the experimental and control group students' achievement levels regarding verbal estimation problems after the instruction was tried to be revealed. Therefore, Mann Whitney U test was employed to see whether there is a significant difference between the experimental and control groups in terms of VPET posttest scores. The relevant test results are given in Table 5.

**Table 5:** Experimental and Control Group VPET Post-Test Scores

Groups	N	Mean Rank	Total Rank	U	P
Experimental	32	40.05	1281.50		
Control	31	23.69	734.50	238.5	.000

Table 5 shows that as  $p<0.05$ , there is a statistically significant difference between the experimental and control group students' VPET posttest scores. This difference is in favor of the experimental group. Accordingly, it is possible to say that instruction based

on RME is more effective than the current instruction for the students' estimation skills regarding verbal problems. The fifth sub-problem of the study aims at revealing the influence of the instruction based on RME on the variety and frequency of the strategies that they employ for verbal estimation problems. Table 6 shows the strategies employed by the experimental and control group students as well as the relevant percentages.

**Table 6:** Strategies Used in VPET Pretest and Posttest

	The Strategy in Use	Pretest				Posttest			
		Experimental Group		Control Group		Experimental Group		Control Group	
		f	%	f	%	F	%	f	%
1	Rounding up to multiples of 5, 10, and 100	64	20	37	11.9	149	42.9	67	21.5
2	Multi-stage rounding	7	2.2	0	0	14	4	9	2.9
3	Using concurrent numbers	6	1.9	4	1.3	24	6.9	3	1
4	Using equivalent fractions	0	0	0	0	3	0.9	0	0
5	Rounding the remainder in division operations	2	0.6	7	2.3	12	3.5	5	1.6
6	Taking the greater denominator as the common denominator	6	1.9	21	6.8	14	4	23	7.4
7	Taking the smaller denominator as the common denominator	1	0.3	3	1	3	0.9	3	1
8	Setting a value between denominators as the common denominator	1	0.3	8	2.6	5	1.4	1	0.3
9	Grouping	0	0	0	0	3	0.9	0	0
10	Factorization	0	0	1	0.3	0	0	0	0
11	Arrangement-adjustment at the beginning of the operation	0	0	0	0	2	0.6	1	0.3
12	Arrangement-adjustment at the end of the operation	0	0	0	0	1	0.3	0	0
13	Others	0	0	0	0	3	0.9	0	0
	<b>Total</b>	<b>87</b>	<b>27.2</b>	<b>81</b>	<b>25.8</b>	<b>233</b>	<b>64.4</b>	<b>112</b>	<b>35.5</b>

Table 6 shows that the experimental group students employed seven types of strategies for verbal estimation problems in the pretest while this number increased up to 12 in the posttest. While 27.2% of the responses given in the pretest involved strategies, this percentage increased up to 64.4% in the posttest. It is seen that the strategy that was most employed by the experimental group students both in the pretest and in the posttest is rounding up to multiples of 5, 10, and 100. Other strategies frequently employed in the pretest are multi-stage rounding, using the concurrent numbers, and taking the greater denominator as the common denominator, while the least employed strategies are taking the smaller denominator as the common denominator and setting a value between denominators as the common denominator. For the posttest, the other frequently employed strategies in addition to rounding up to multiples of 5, 10, and 100 are using the concurrent numbers, multi-stage rounding, taking the greater denominator as the common denominator, and rounding the remainder in division operations. The least employed strategy is arrangement-adjustment at the end of the operation. The strategies employed in the posttest but not in the pretest are using equivalent fractions,

grouping, arrangement-adjustment at the beginning of the operation, and arrangement-adjustment at the end of the operation. Some examples from the strategies employed by the experimental group students are given below with extracts from the students' responses.

For the question, "Vedat, an amateur footballer, trained for  $\frac{16}{5}$  hours on Monday,  $\frac{41}{11}$  hours on Tuesday, and  $\frac{98}{50}$  hours on Wednesday. How many hours of training did Vedat do on these three days in total? Make an estimation.", the student rounded up the denominators of the fractions to the multiples of 10 in the pretest without taking into account numerators, and he made an incorrect attempt of **rounding up to multiples of 5, 10, and 100**. In the posttest, he implemented the strategy of **rounding up to multiples of 5, 10, and 100** accurately. The student's estimations in the pretest and posttest are given below.

Pretest solution:

$$\begin{array}{l} 16 \rightarrow 20 \\ 41 \rightarrow 20 \\ 98 \rightarrow 100 \end{array} \quad \begin{array}{r} 100 \\ 20 \\ 20 \\ \hline 160 // \end{array}$$

Posttest solution:

$$\begin{array}{l} 16 \rightarrow 20 \\ 5 \rightarrow 10 \\ 21 \rightarrow 20 \\ 11 \rightarrow 10 \end{array} \quad \begin{array}{l} \frac{20}{10} = 2 \\ \frac{40}{10} = 4 \\ \frac{100}{50} = 2 \end{array} \quad \begin{array}{r} 98 \rightarrow 100 \\ 50 \rightarrow 50 \\ 2 \\ 2 \\ \hline 8 // \end{array}$$

Another student in the experimental group made an incorrect implementation of **rounding up to multiples of 5, 10, and 100** in the pretest in response to the question "How much money will a customer pay for a processor costing  $\frac{61}{2}$  TL and headphones costing  $\frac{35}{3}$  TL in a store selling electronically products? Make estimation." He employed the **concurrent numbers strategy** in the posttest effectively.

Pretest solution:

$$\frac{60}{0} + \frac{40}{0} = \frac{100}{0} \text{ TL ödeyecektir.}$$

Posttest solution:

$$\frac{60}{2} = 30 \quad \frac{33}{3} = 11$$

$$30 + 11 = 41 \text{ TL}$$

61'ı 2'ye tam bölünmesi için 60'a, 35'i de 11'e tam bölünmesi için 33'e yuvarladım. Sonra payı paydaşa böldüm.

For the same question, another student **added up the numerators and denominators to write the final numerator and denominator** in the pretest, which was incorrect. In the posttest, he accurately implemented the strategy of **rounding the remainder in division operations**.

Pretest solution:

$$\frac{61}{2} + \frac{35}{3} = \frac{96}{5}$$

Posttest solution:

$$\begin{array}{r} 35 \overline{) 11} \\ \underline{-30} \\ 11 \\ \underline{-9} \\ 2 \end{array} \quad \begin{array}{r} 61 \overline{) 2} \\ \underline{-60} \\ 01 \\ \underline{-00} \\ 01 \\ \underline{-00} \\ 01 \\ \underline{-00} \\ 01 \end{array} \quad \begin{array}{r} 11 \\ \underline{-30} \\ 41 \\ \underline{-30} \\ 11 \\ \underline{-30} \\ 11 \end{array}$$

A student, in response to the question “Nuray’s mother thinks that she has to be careful about watching TV. She recorded the duration of Nuray’s watching TV for 5 days. These

are as follows: Monday:  $\frac{31}{10}$  hours; Tuesday:  $\frac{22}{7}$  hours; Wednesday:  $\frac{28}{10}$  hours;

Thursday:  $\frac{16}{5}$  hours; and Friday:  $\frac{26}{9}$  hours. Accordingly, how many hours did Nuray

watch TV on five days approximately? Make an estimation.”, rounded up the numerators of the fractions to the multiples of 10 in the pretest without taking into account the denominators, which resulted in an incorrect attempt of **rounding to the multiples of 5, 10, and 100**. In the posttest, he implemented the **concurrent numbers and grouping strategies** accurately.

Pretest solution:

31 → 30'a yakın  
 22 → 20'ye yakın  
 28 → 30'a yakın  
 16 → 20'ye yakın  
 26 → 30'a yakın

$$\begin{array}{r} 60 \\ 20 \\ \underline{+ 30} \\ 130 \text{ Saat} \\ \text{12'ler} \end{array}$$

Posttest solution:

$$\begin{array}{l} 31 \rightarrow 30 \quad \frac{10}{30} = 3 \\ 22 \rightarrow 21 \quad \frac{21}{7} = 3 \\ 28 \rightarrow 30 \quad \frac{30}{10} = 3 \\ 16 \rightarrow 15 \quad \frac{15}{5} = 3 \\ 26 \rightarrow 27 \quad \frac{27}{9} = 3 \end{array}$$

Hepsini bölebileceğim sayılara yuvarladım

A student solved the problem “Ms. Aylin will cook semolina desert to the guests for a ceremony to which 398 people have been invited. As Ms. Aylin uses  $\frac{5}{21}$  kg of sugar for semolina desert per person, approximately how many kg of sugar will she need to cook semolina desert for the guests of the ceremony? Make an estimation.” by employing the strategy of **rounding to multiples of 5, 10, and 100** in the pretest and employing the strategies of **rounding to multiples of 5, 10, and 100** and **using equivalent fractions** in the posttest

Pretest solution:

$$\frac{400}{1} \cdot \frac{5}{20} = \frac{2000}{20} \text{ Kg şeker}$$

Posttest solution:

$$\frac{400}{1} \cdot \frac{10}{42} = \frac{4000}{42} = \frac{2000}{21} = \frac{2000}{21} \approx 95.24$$

## Conclusion, Discussion, and Recommendations

This study has focused on teaching the acquisition “They estimate the results of fractional operations using the strategies.” To this end, it has sought to reveal the effectiveness of the instruction based on RME. The study results indicate that the instruction based on RME is more effective than the traditional instruction based on the guidebook in terms of students’ considering the estimation skill as useful and significant. These results are in line with those found by Aydın Ünal (2008), Akyüz (2010), Bildircin (2012), Çakır (2011), Demirdöğen (2007), Gelibolu (2008), Özdemir (2008), and Üzel (2007). In addition, the studies conducted by Kwon (2002), (2008), Keijzer, Van Galen and Oosterwaal (2004) support the findings of this study.

It was seen that the experimental group students could come up with more authentic strategies than the students in the control group. This supports the result revealed by Keijzer and Terwel (2004). In the groups exposed to instruction via RME approach and traditional approach, the most frequently employed strategy in the pretest and posttest is rounding to multiples of 5, 10, and 100, which is included in the process of readjusting the numbers. Liu (2009), Reys, Reys, Nohda, Ishida, Yoshikawa, and Shimizu (1991), and Reys, Reys, and Penafiel (1991) stated in their studies that readjusting the numbers is the most frequently employed computational estimation process. Sowder and Wheeler (1989) claim that acceptance of the fact that estimation is useful is under the title of emotional components, which is one of the components of computational estimation. Reys, Rybolt, Bestgen and Wyatt (1982) denote that computational estimators have three dimensions of characteristics. One of these dimensions is emotional characteristics. In emotional processes, good estimators consider estimations as important tools in relation to numbers. In the present study, all the students in the experimental group stated that estimations are useful for real life situations and exemplified such claim of theirs. On the other hand, 23% of the control group students stated that estimation strategies are not useful for their daily life while 13% stated that they are useful yet could not exemplify their claim. This may be indicative of the fact that considering estimation as a useful strategy underlies the significant difference between the experimental and control groups’ estimation success.

Based on the results, the recommendations below can be given:

- Mathematics curriculum makers may make sure that various contextual problems about real life situations exist in the programs so that students can engage in meaningful learning, put their formal knowledge into use, and understand the importance of estimation in real life.
- Problem situations in the activities to teach estimation strategies should be suitable for employing models. Through models, students can access informal knowledge via formal knowledge. Hence, they may engage in the mathematization process.

- Mathematics teachers should offer a learning environment to their students where they can share their strategies and discoveries. Students should be encouraged to explain, justify, accept, reject, question the alternatives, and think.

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# Once-retained and Multiple-retained Students: Differences in Perceptions of Engagement and School Climate

George Bear<sup>1</sup> and Carolina Lisboa<sup>2</sup>

University of Delaware, USA  
<sup>1</sup>gbear@udel.edu

Pontifícia Universidade Católica do Rio Grande do Sul, Brasil  
<sup>2</sup>carolina.lisboa@pucrs.br

## Abstract

Repeating a grade in school is generally viewed as placing students at great risk for dropping out, or not completing high school. Studies have reported that retained students are 2 to 11 times more likely to drop out of school than those who are promoted. From the framework of developmental systems and transactional theories, dropping out of school is viewed as the last step, and grade retention as an early step, in a gradual process of school disengagement. This study investigated differences between retained and promoted students in their self-reported cognitive-behavioral engagement and emotional engagement. Unlike in previous studies, we included students retained once and those retained twice or more. We also examined differences in students' perceptions of school's climate.

Reviews of the literature have concluded that engagement, in general, is associated with grade retention (Jimerson, 2001). However, differences between retained and promoted students are more consistently reported for behavioral and cognitive engagement than emotional engagement. This is seen in studies reporting that retained students, compared to promoted students, demonstrate less academic effort and achievement and less conformity to rules, values, and social norms (Demagnet & Van Houtte, 2013). Studies also suggest that whereas many retained students are lacking in behavioral and cognitive engagement, they nevertheless are socially and emotionally adjusted, as seen in experiencing a sense of school belonging and having positive peer relationships. It is unclear if this includes what is generally recognized as emotional engagement.

The constructs of school climate and school engagement share common elements, especially students' perceptions of relationships with teachers and other students and academic engagement. However, an important distinction between the two is that school climate is generally conceptualized as a school-level construct, and is treated as such in most measures of school climate. Thus, items on measures of school climate typically address what individual students perceive to be values, expectations, and behaviors that are school-wide ("Teachers in this school care about students."), and not specific to the individual respondent. Multiple studies have shown that students' perceptions of their school's climate are related to a number of valued academic and social-emotional outcomes. Thus, one might expect that students who are disengaged view their school climate negatively. We found only one study that examined differences in perceptions of school climate between retained and promoted students.

Based on theory and previous research, we predicted that compared to promoted students, retained students would report less behavioral and cognitive engagement. We also predicted that students retained multiple times would report less emotional engagement. We made no predictions in exploring the relation of retention to perceptions of school climate.

The sample included 204 students (51% male) in grades 5-9, enrolled in four public schools in the Porto Alegre, Brazil: 56 were in grade 5, 41 in grade 6, 45 in grade 7, 37 in grade 8, and 25 in grade 9. Records identified that 80 students had been retained: 45 once and 35 retained two or more times (21 twice, 11 three times, 2 four times, and 1 five times).

Students completed the Brazilian version of the Delaware Student Engagement Scale (DSES; Authors, 2016a) to assess their perceptions of being involved, committed, or invested in the cognitive-behavioral and emotional aspects of schooling. The scale consists of two subscales, Cognitive-Behavioral Engagement and Emotional Engagement, with five items on each subscale. To assess their perceptions of school climate, students completed the Brazilian Delaware School Climate Survey-Student (DSCS-S), which consists of 28 items and six subscales (Teacher-Student Relationships, Student-Student Relationships, Safety, Fairness and Clarity of Rules, Bullying School-wide, and Engagement School-wide). The DSES and DSCS-S are supported by confirmatory factor analyses and additional research in Brazil and the U.S. on their validity and reliability (Authors, 2016a; 2016b).

A significant overall main effect was found for cognitive-behavioral engagement, ( $F = 14.585$ ,  $df [2, 187]$ ,  $p \leq .001$ ). Promoted students scored significantly higher on cognitive-behavioral engagement than once-retained students ( $f[187] = -3.80$ ,  $p \leq .001$ ) and multiple-retained students ( $f[187] = -4.64$ ,  $p \leq .001$ ). Effect sizes, based on Cohen's  $d$ , were .728 and .944, respectively. However, once-retained students did not differ significantly from multiple-retained students. A significant overall main effect also was found for emotional engagement ( $F = 4.646$ ,  $df [2, 183]$ ,  $p = .011$ ). Promoted students scored significantly higher on emotional engagement than multiple-retained students ( $f[183] = -2.97$ ,  $p = .003$ ;  $d = .591$ ), but no significant differences were found between promoted and once-retained students or between once-retained and multiple-retained students. With respect to school climate, results of multivariate analysis of variance revealed no significant differences between the three groups on the six school climate subscales.

Finding that retained students are significantly less cognitively-behaviorally engaged than promoted students is consistent with previous research. It is commonly stated in the research literature that retention is harmful to academic achievement, and that differences between retained and promoted students are more consistently found in the long-term than the short-term due to cumulative or "sleeper" effects of their retention. Thus, we anticipated that students retained multiple years would report less cognitive-behavioral engagement than students retained once. This was not found. This begs the question "If not self-reported cognitive-behavioral engagement, what might account for

some students being retained once whereas others are retained multiple times?” Drawing from theory and previous research, we argue that preretention factors, not assessed in the current study, largely account for those differences.

Finding less emotional engagement among students retained multiple times also is consistent with developmental theory and research on the long-term “sleeper” effects of retention, especially the cumulative negative impact of multiple retentions. However, we argue that as with cognitive-behavioral engagement, preretention factors likely contribute to the greater emotional engagement between promoted students and those retained multiple times.

Limitations and implications of the study for practice are discussed.

**Keywords:** grade retention, student engagement, school climate, Brazilian schools

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# **Socio-cultural Dimensions or Performance Metrics Dilemma in Early Childhood Quality Assessment? The Nigerian Experience**

Taiwo. F. Gbadegesin

University of Leeds, UK  
taiwogbadegesin@yahoo.com

## **Abstract**

Earlier studies have argued that quality early childhood care and education (ECCE) is predicated on performance metrics. Recent approach to quality assessment argued a post-modern concept of quality assessment which is based on contextual and meaning making in a particular context. This paper is an outcome of a qualitative study conducted on teachers, policy-makers and parents in Nigeria. A generational gap outcome revealed that the older stakeholders cherished an educational approach that emphasizes values of communal training, respect, courtesy, character training and projection of good names, in addition to modern knowledge of technology and formal education. The younger stakeholders are more inclined to individuality of a child, score system based on performance measurement. Thus, the two findings indicate the hybrid of modern and post-modern theoretical underpinning in this context. It further argues that while metrics ratings are important assessment tools, the Nigerian ECCE needs to sufficiently incorporate these socio-cultural values.

**Keywords:** early childhood education socio-cultural performance metrics

# The Impact of a Framework-aligned Science Professional Development Program on Literacy and Mathematics Achievement of K-3 students

Peter Paprzycki<sup>1</sup>, Nicole Tuttle<sup>2</sup> and Charlene Czerniak<sup>3</sup>

University of Southern Mississippi, USA

<sup>1</sup>peter.paprzycki@gmail.com

The University of Toledo, USA

<sup>2</sup>Nicole.Tuttle@utoledo.edu

<sup>3</sup>Charlene.Czerniak@utoledo.edu

## Abstract

This study investigates the effect of a Framework aligned professional development program at the PreK3 level. The NSF funded program integrated science with literacy and mathematics learning and provided teacher professional development, along with materials and programming for parents to encourage science investigations and discourse around science in the home. This quasi-experimental study used a three level hierarchical linear model to compare the Renaissance STAR Early Literacy, Reading, and Mathematics scores from 2015-16 of K3 students in treatment and control classrooms in a large Midwestern urban school district. The statistically significant results indicate that, on average, every year that a student has a program teacher adds 11.2 points to a student's spring STAR Early Literacy score, 21.8 points to a student's STAR Mathematics score, and 47.9 points to a student's STAR Reading score compared to control students. Implications for teacher education and policy are discussed.

**Keywords:** teacher professional development, science, literacy and mathematics

## Introduction

Current evidence-based science education reform efforts, as described in *A Framework for K-12 Science Education (Framework)* (National Research Council [NRC], 2012) and the *Next Generation Science Standards (NGSS)* (NGSS Lead States, 2013), provide a foundation for effective science learning. The *Framework* envisioned science instruction woven together with three dimensions: scientific and engineering practices (skills used by scientists and engineers as they investigate natural phenomena or design and test solutions to problems), core disciplinary ideas (a limited set of critical disciplinary concepts that can be understood more deeply as students investigate them over time), and crosscutting concepts (themes and processes that apply across scientific disciplines) (NRC, 2012).

Science instruction aligned to the *Framework* asks students to investigate natural phenomena, read, discuss, and write about their investigations, use mathematics and computational thinking to analyze their data and draw conclusions, and make arguments from evidence, just as professional scientists carry out their work. The *Framework* particularly focuses on the importance of language for students' science

knowledge development: “Any education in science and engineering needs to develop students’ ability to read and produce domain-specific text. As such, every science or engineering lesson is in part a language lesson, particularly reading and producing the genres of texts that are intrinsic to science and engineering” (NRC, 2012, p. 76).

### **Links Between Science, Math, and Literacy**

Such an imperative aligns with many years of research outlining the importance of argumentation, critical reading, and writing for promoting science literacy (e.g. Glynn & Muth, 1994; Holliday et al., 1994; Shymansky et al., 2000, Yore, et al., 2004). Reading educators point to the importance of content knowledge, such as students might gain from conducting investigations, to strengthening reading skills; for example, there is a strong link between knowledge of vocabulary and reading achievement (National Reading Panel, 2000). Research that evaluates the impact of merging science and literacy instruction has established that such approaches benefit both science and literacy learning (e.g., Cervetti, Barber, Dorph, Pearson, & Goldschmidt, 2012; Hapgood & Palincsar, 2007; Palincsar & Magnusson, 2001; Romance & Vitale, 1992, 2001; Varelas & Pappas, 2006).

Specific examples of science-literacy connections with young children include the work of Varelas and her colleagues, who studied the opportunities to develop Latina students’ science understanding afforded by read-alouds of science information books and related hands-on explorations (Varelas & Pappas, 2006; Varelas, Pappas, & Rife, 2006; Varelas, Pieper, Arsenault, Pappas, & Keblawe-Shamah, 2014; Romance & Vitale, 1992, 2001; Vitale & Romance, 2011, 2012).

The *Framework* (NRC, 2012) also emphasizes the role of mathematics in science instruction: “Increasing students’ familiarity with the role of mathematics in science is central to developing a deeper understanding of how science works (NRC, 2012, p. 66). Using mathematics and computational thinking is one of the eight science and engineering practices of the *Framework* (NRC, 2012), and a second, analyzing and interpreting data, echoes the “Measurement and Data” domain of the Common Core state mathematics standards (National Governors Association Center for Best Practices, 2010). Research supports the benefits of integrating mathematics and science instruction (Hurley, 2001; Sondergeld, Milner, Coleman, and Southern, 2011).

### **School, Family, Community, and Student Achievement**

Reform efforts such as teacher professional development play a key role in improving the academic outcomes of students, yet racial and income achievement gaps in student achievement in science in the United States persist (U.S. Department of Education, 2015). Many have looked to out-of-school time as a resource that could be leveraged to support education reform efforts. With respect to science, Falk and Dierking (2010) found that significant amount of learning occurs outside of school in informal educational environments. Structured, non-school science activities certainly promote interest in science for students, and may contribute to their academic achievement as well (National Research Council, 2009). Maltese and Tai (2009) found that many

professional scientists' interest in science were sparked by early science activities that they completed outside of school.

In addition, parental engagement is an important predictor of children's academic success for all students, regardless of socioeconomic status, gender, or race (Barnard, 2004; Catsambis, 2001; Henderson & Mapp, 2002; Jeynes, 2005). A recent review of research on families' effects on children from preschool to early elementary found a positive link between parent engagement and children's literacy and math skills (Van Voorhis, Maier, Epstein, & Lloyd, 2013).

Despite mounting evidence supporting the importance of family engagement on children's education, families lack resources on how to do so, and educational institutions have offered minimal pledges to support it (Weiss et al., 2009). Science can be a particularly tricky subject for parents to assist their children's learning, as they often know little about what their children are learning in science at school (Solomon, 2003). In addition, parents may be hindered by a lack of communication between school and home, their own lack interest in science, or anxiety and bad experiences with science (Shymansky, Yore, & Hand, 2000).

One possible avenue that educational institutions could take to support families is to provide opportunities for parents and children to engage in science together (Kaya & Lundeen, 2010). Previous research found that family take-home science activity packs provide a viable way to connect schools and families ([Author], 1994), and science activity packs have the potential to promote family conversations about science, encourage observation of scientific phenomena, and spark increased interest in science for both parent and child (Webster, 2001; Author citation, 2016a). Such packs also reinforce literacy skills, extend reading experiences about science topics, and deepen conceptual understanding of disciplinary core ideas (Martin, Daughenbaugh, Shaw, & Burch, 2013).

### **Theoretical Framework**

Schools face intense pressure to improve students' academic achievement, which they must do despite the social problems that students bring to the classroom. Because of this, it would be extremely difficult for schools to alone provide all the supports that children need in their education. Rather, decades of literature suggest that these pressures on schools can be mitigated through partnerships with community agencies and organizations (e.g., Crowson & Boyd, 1993; Heath & McLaughlin, 1987).

The Harvard Family Research Project (Bouffard, Goss, & Weiss 2008) has grounded their complementary learning framework in this theory. The framework is based on two assertions: first, that both school and non-school contexts makes a critical contribution to students' learning and achievements; and second, that these contexts should create complementary learning opportunities (Weiss, Coffman, Post, Bouffard, & Little, 2005). In such a framework, learning experiences for children are aligned both in school and out of school. This creates a "web of opportunity" for children that breaks down the silos of school, home, and the broader community.

## **This Study**

This study examines the effect of a *Framework*-aligned professional development [PD] program on student achievement in reading and mathematics. This NSF funded program, [Program], provided professional development for K-3 teachers, along with home science materials and community science programming for families. Previous work (Author citation, 2016b) indicated that following this professional development training, [program] teachers were able to integrate targeted language skills and mathematics into their lessons. This study arises from the next logical question of whether incorporating *Framework*-aligned science instruction into classroom, family, and community science learning would affect students' achievement in reading and mathematics.

## **Program Context**

This study focuses on the effect on student outcomes of [Program], an early-childhood science project funded by a Mathematics and Science Partnership grant from the National Science Foundation. The program intervention was designed around the Harvard Complimentary Learning Model (Harvard Family Research Project, 2008) to provide comprehensive educational experiences in science. The project includes five primary components: (a) a two-week Summer Institute for PreK-3 teachers, (b) academic year PD including monthly professional learning community meetings and one-on-one coaching, (c) family science activity take-home packs, (d) family community science events, and (e) public service broadcasts on television that promote family science activities.

## **Methodology**

This study used a quasi-experimental, between-group design to investigate whether [Program] affected student learning outcomes. To that end, the study asks, *what effect does teachers' participation in [Program] have on their students' early literacy, reading, and mathematics achievement?*

## **Participants**

Control and treatment students were drawn from students at the 41 elementary schools in a large urban school district in the Midwest with a high degree of racial diversity and 64.8% of students receiving free and reduced lunch. Since this study examined students in three different assessments (early literacy, mathematics, and reading), which were administered by the district in different grades, the three sub-studies have different participant populations. Students were drawn from grades K-2 (early literacy), grades 2-4 (mathematics), and grades 1-4 (reading) based on the district's timetable for assessment.

Treatment participants consisted of students who had at least one [Program] teacher during the 2013-2014, 2014-2015, or 2015-2016 academic years. Teachers' participation in [Program] could have occurred in any or multiple of those academic years. Participants consisted of 2899 students for the early literacy study, 2002 students for the mathematics study, and 1810 students for the reading study. Control students consisted of 2515 students for the early literacy study, 3028 students for the

mathematics study, and 2448 students for the reading study, who had never had a [Program] teacher in the time frame.

### **Data**

Data consisted of raw and scale scores from the STAR Early Literacy, Mathematics, and Reading assessments. These nationally-normed assessments are grounded in research and have been reviewed as reliable and valid by several independent groups (Renaissance Learning, 2014). These assessments were chosen due to their availability as validated assessments for the grade range of interest to [Program], and because their use as a formative assessment by the district meant that students were assessed multiple times throughout the academic year.

These assessments provided a natural pre/post framework for this study, as our partner district administers them in both fall and spring. Data were collected from the district for academic year 2015-2016, which included three measurement occasions: Fall 2015, Winter 2015, and Spring 2016. For the grades of interest to this study, the district administers STAR Early Literacy in grades K-2, STAR Mathematics in grades 2-4, and STAR Reading in grades 2-4. In addition, K-1 students who achieve a threshold on the STAR Early Literacy assessment are given the STAR Reading assessment before grade 2.

### **Baseline Equivalence**

Baseline equivalence was established by examining the fall scores for the STAR Early Literacy assessment for kindergarteners in the study for 2013-2014, 2014-2015, and 2015-2016. A two-level hierarchical model was used to assess the equivalency between the treatment and control cohorts; three separate analyses were performed for the three respective years. The results for the treatment type coefficients for all three years indicated no statistically significant difference between groups:  $t(40) = -6.66, p = .242$  for fall 2013;  $t(40) = 3.32, p = .359$  for fall 2014; and  $t(40) = 0.87, p = .777$  for Fall 2015 data. The weighted average absolute value effect size for intervention (Hedges'  $g$ ) was .047, which is considered to be a negligible effect size, so no statistical correction for baseline was used during subsequent data analyses.

### **Data Analysis**

**This Study.** The hierarchical model adopted in this study is a three-level hierarchical model, as implemented by HLM for Windows, v. 7.01, where the students' Rasch-model scaled STAR scores for the Mathematics, Reading, and Early Literacy assessments serve as the outcome variables. Although a multivariate approach to the dependent variables is possible, the present study focused on the analysis of one outcome variable at a time. Therefore, the first-level of data consists of repeated observations of the assessment data in one domain (a level-one unit) nested within a specific student (a level-two unit). Students in turn are nested within schools (a level-three unit).

At the first level equation, the individual student mean achievement was predicted from one time-variant variable: grand-mean centered *testing occasion* (levels: 0 = Fall 2015, 1 = Winter 2015, and 2 = Spring 2016). The first-level equation included student's

intercept (mean value of student achievement) and his/her slope or individual growth trajectory over the measurement occasions, plus a random error interpreted as a residual temporal variation. At the second-level, the estimated coefficients (intercepts and slopes) from the first-level equations became the solutions to two equations, one that modeled student's mean achievement or  $\pi_{0jk}$  and another one that modeled student average learning rate or  $\pi_{1jk}$ . Both second level equations included time-invariant student-level variables: grand-mean centered *current grade* (2, 3, and 4 for mathematics; 1, 2, and 3 for reading; K, 1, and 2 for early literacy); *gender* (levels: 0 = female and 1 = male); *minority status* (levels: 0 = minority or and 1 = non-minority or White); and *intervention* or whether or not a student had a program teacher up to the point of measurement (levels: 0 = absence or 1 = presence of intervention teacher). The *current grade* variable was considered a time-invariant because the assessment data utilized the latest, 2015-2016 academic year data. The effects of schools were modeled with the third-level equations. The third-level equations were unconditional or did not include school-context variables.

## Results

### STAR Early Literacy

The student mean achievement expressed as a  $\gamma_{000}$  (third-level equation intercept coefficient) for the STAR Early Literacy model was 650.18 (see Table 1). This coefficient represented an average, predicted Winter 2015 score for a minority, female 1st grade student who had never had a [program] teacher. This model predicted outcome was affected in a statistically significant way by the following student-level that the demographic variables: *current grade*, *gender*, and *minority status*. As expected, students' scale scores increased by 101.43 with an increase in *current grade* expressed as the  $\gamma_{010}$  coefficient (i.e., moving from grade one to grade two) when controlling for the effects of *gender*, *minority status* and *intervention*. The effect of *gender* (the  $\gamma_{020}$  coefficient) on mean achievement status was statistically significant with female students outscoring male students by an average of 14.73 units. Also, a statistically significant effect for *minority status* (the  $\gamma_{030}$  coefficient) on mean achievement was observed, with non-minority students scoring, on average, an additional 15.61 units in comparison to minority students. This final effect, however, has to be interpreted cautiously in the absence of student's socio-economic status information.

Most importantly, the *intervention* variable had a statistically significant impact on students' scores (see the  $\gamma_{040}$  coefficient). Adding a [program] teacher to a student's academic history was associated with an average increase of 11.24 units in mean student achievement, controlling for the effects of the *current grade*, *gender* and *minority status* variables. This effect size (Hedges' *g*) was 0.119, which is to be interpreted as a treatment group having, on average, 0.119 higher scores in standard deviation units as compared to the scores of the control cohort and is to be interpreted a small effect size.

**Table 1.** Summary of Three-Level Exploratory Model for STAR Early Literacy Achievement

Fixed Effect	<i>B</i>	<i>SE B</i>	<i>t</i> -ratio	<i>df</i>	<i>p</i>
Model for average status, $\pi_0$					
Model for mean-status of 1st grade minority female who did not have intervention teacher, $\beta_{00}$					
Average mean status, $\gamma_{000}$	650.18	7.35	88.43	41	<0.001
Model for current grade, $\beta_{01}$					
Current grade, $\gamma_{010}$	102.43	2.03	50.37	41	<0.001
Model for gender, $\beta_{02}$					
Gender, $\gamma_{020}$	-14.73	2.34	-6.29	5982	<0.001
Model for minority status, $\beta_{03}$					
Minority status, $\gamma_{030}$	15.61	3.07	5.09	5982	<0.001
Model for intervention, $\beta_{04}$					
Intervention, $\gamma_{040}$	11.24	4.80	2.34	41	.024
Model for learning rates, $\pi_1$					
Model for learning rates of 1st grade minority female who did not have intervention teacher, $\beta_{10}$					
Average learning rate, $\gamma_{100}$	68.15	1.70	39.98	41	<0.001
Model for current grade, $\beta_{11}$					
Current grade, $\gamma_{110}$	-19.26	2.00	-9.62	41	<0.001
Model for gender, $\beta_{12}$					
Gender, $\gamma_{120}$	0.80	1.55	0.52	8989	.606
Model for minority status, $\beta_{13}$					
Minority status, $\gamma_{130}$	0.13	1.31	0.10	8989	.919
Model for intervention, $\beta_{14}$					
Intervention, $\gamma_{140}$	-2.39	2.14	-1.12	41	.270

This model also provided information about the associated changes in student mean achievement score from one testing occasion to another, or a learning rate expressed as the  $\gamma_{100}$  coefficient (in Table 1). The learning rate for a minority, 1<sup>st</sup> grade female student who had never had a [program] teacher was 68.15 units. No student-level variables, with the exception of *current grade* (see the  $\gamma_{110}$  coefficient) had a statistically significant effect on the learning rate over this relatively short assessment time. Overall, students in lower grades experienced 19.26 units faster learning than students in higher grades over testing occasions (see the  $\gamma_{140}$  coefficient), when controlling for the effects of *gender*, *minority status* and *intervention*. As the reliability of the estimate of the mean learning rate was low (see below), these results should be interpreted cautiously.

### STAR Mathematics

The model predicted mean achievement of 493.66 expressed as the  $\gamma_{000}$  coefficient (see Table 2) for the STAR Mathematics model is to be interpreted as a Winter 2015 scores for a minority, female, 3<sup>rd</sup> grade student who had never had a [program] teacher. Three of the four student-level variables had a statistically significant effect on the mean measure. The effect of *gender* on a student mean achievement status was not statistically significant (see the  $\gamma_{020}$  coefficient). However, students' scale scores increased by 85.96 units with an increase in *current grade* (i.e., moving from grade three to grade four) when controlling for the effects of *gender*, *minority status* and *intervention* (see the  $\gamma_{010}$  coefficient). A statistically significant effect for *minority status* on mean achievement was observed, with non-minority students scoring, on average,

an additional 21.11 units in comparison to minority students (see the  $\gamma_{030}$  coefficient). This effect, again, should be interpreted cautiously in the absence of student's socio-economic status information.

Most importantly, the intervention variable has a statistically significant impact on students' mean achievement on the STAR Mathematics assessment (see the  $\gamma_{040}$  coefficient). An average increase of 21.75 units was associated with adding a [program] teacher to a student's academic history, controlling for the effects of the *current grade*, *gender* and *minority status* variables. This effect size (Hedges' *g*) was calculated as 0.179.

Analogously, with respect to the assessment of a student's learning rate, the average slope coefficient for a minority, 3<sup>rd</sup> grade female student who had never had a [program] teacher was 47.52 units (see the  $\gamma_{100}$  coefficient in Table 2). No student-level variables, with the exception of *current grade*, had a statistically significant effect on the learning rate over this relatively short assessment time. On average, students in higher grades increase their scores at 6.80 units slower than students in lower grades, when controlling for the effects of *gender*, *minority status* and *intervention* (see the  $\gamma_{110}$  coefficient).

**Table 2.** Summary of Three-Level Exploratory Model for STAR Mathematics Achievement

Fixed Effect	<i>B</i>	<i>SE B</i>	<i>t</i> -ratio	<i>df</i>	<i>p</i>
Model for average status, $\pi_0$					
Model for mean-status of 3rd grade minority female with no intervention $\beta_{00}$					
Average mean status, $\gamma_{000}$	493.66	5.26	93.79	40	<.001
Model for current grade, $\beta_{01}$					
Current grade, $\gamma_{010}$	85.96	2.01	42.87	40	<.001
Model for gender, $\beta_{02}$					
Gender, $\gamma_{020}$	2.86	2.24	1.28	5537	.190
Model for minority status, $\beta_{03}$					
Minority status, $\gamma_{030}$	21.11	3.07	6.88	5537	<.001
Model for cumulative intervention, $\beta_{04}$					
Cumulative intervention, $\gamma_{040}$	21.75	3.48	6.25	40	<.001
Model for learning rates, $\pi_1$					
Model for learning rates of 3rd grade minority female with no intervention, $\beta_{10}$					
Average learning rate, $\gamma_{100}$	47.52	1.78	26.75	40	<.001
Model for current grade, $\beta_{11}$					
Current grade, $\gamma_{110}$	-6.80	1.58	-4.32	40	<.001
Model for gender, $\beta_{12}$					
Gender, $\gamma_{120}$	2.31	0.90	2.58	5537	.031
Model for minority status, $\beta_{13}$					
Minority status, $\gamma_{130}$	0.99	1.46	0.68	5537	.499
Model for cumulative intervention, $\beta_{14}$					
Cumulative intervention, $\gamma_{140}$	0.35	1.90	-0.19	40	.853

## STAR Reading

The predicted mean achievement of 301.46 (the  $\gamma_{000}$  coefficient) represented a Winter 2015 score for a minority, female student between grades two and three who had never had a [program] teacher, as seen in Table 3 which summarizes the regression coefficients for the STAR Mathematics mean achievement model. The examination of the student-level variables included in the model demonstrated statistically significant effects for all of the second-level variables. Students' scale scores increased by 80.37 with an increase in *current grade* (i.e., moving from grade three to grade four) when controlling for the effects of *gender*, *minority status* and *intervention* (see the  $\gamma_{010}$  coefficient).

**Table 3. Summary of Three-Level Exploratory Model for STAR Reading Achievement**

Fixed Effect	B	SE B	t-ratio	df	p
Model for average status, $\pi_0$					
Model for mean-status of minority female who did not have intervention teacher between grades 2 and 3, $\beta_{00}$					
Average mean status, $\gamma_{000}$	301.46	8.93	33.74	40.00	<0.001
Model for current grade, $\beta_{01}$					
Current grade, $\gamma_{010}$	80.37	3.29	24.46	40	<0.001
Model for gender, $\beta_{02}$					
Gender, $\gamma_{020}$	-14.26	3.53	-4.03	4952	<0.001
Model for minority status, $\beta_{03}$					
Minority status, $\gamma_{030}$	42.42	3.92	10.83	4952	<0.001
Model for cumulative intervention, $\beta_{04}$					
Cumulative intervention, $\gamma_{040}$	47.85	4.86	9.85	40	<0.001
Model for learning rates, $\pi_1$					
Model for learning rates of minority female who did not have intervention teacher between grades 2 and 3, $\beta_{00}$					
Average learning rate, $\gamma_{100}$	53.06	2.23	23.83	40	<0.001
Model for current grade, $\beta_{11}$					
Current grade, $\gamma_{110}$	-3.71	1.52	-2.44	40	.019
Model for gender, $\beta_{12}$					
Gender, $\gamma_{120}$	1.82	1.69	1.08	4952	.282
Model for minority status, $\beta_{13}$					
Minority status, $\gamma_{130}$	4.88	1.81	2.69	4952	.007
Model for cumulative intervention, $\beta_{14}$					
Cumulative intervention, $\gamma_{140}$	0.99	2.68	0.37	40	.714

A statistically significant effect for *gender* (see the  $\gamma_{020}$  coefficient) on mean achievement was observed with female students gaining an additional 14.26 units in comparison to male students. A statistically significant effect for *minority status* on mean achievement was present, with non-minority students scoring, on average, an additional 42.42 units in comparison to minority students (see the  $\gamma_{030}$  coefficient). Again, this effect should be interpreted cautiously in the absence of student's socio-economic status information. Most importantly, the intervention variable has a statistically significant impact on students' mean achievement on the STAR Reading assessment (see the  $\gamma_{040}$  coefficient). An average increase of 47.85 units was calculated as a function of adding a [program] teacher to a student's academic history, controlling for the effects of the *current grade*, *gender* and *minority status* variables. This effect size (Hedges'  $g$ ) was

calculated as 0.289, a level considered substantively important by the What Works Clearinghouse (US Department of Education, 2013).

As with the STAR Early Literacy and Mathematics models, this model also provided information about the increase in score from one testing occasion to another, or learning rate. The learning rate for a minority female student who had never had a [program] teacher, see the  $\gamma_{100}$  coefficient in Table 3, was 53.06 units. Most student-level variables had small, statistically significant effects on the learning rate. The effect of *current grade* (see the  $\gamma_{110}$  coefficient) on the learning rate was statistically significant, with students in higher grades learning at 3.71 units slower than students in lower grades. The growth differential for *minority status* (see the  $\gamma_{130}$  coefficient) was also statistically significantly different, with non-minority students making 4.88 unit gains more than non-minority students from one testing occasion to another. Also, the effect of *gender* (see the  $\gamma_{120}$  coefficient), controlling for the effects of *current grade*, *minority status* and *intervention*, was statistically significant, with males outgrowing females by an average of 1.82 units between assessment times.

## Discussion

This study provided evidence for the efficacy of [program] in affecting student outcomes in early literacy, reading, and mathematics when student level variables, namely gender, ethnicity and grade level were considered and the school context or between-schools variation properly accounted for. Having a [Program] teacher in the student's academic life prior or during 2015-16 school year was associated with net gains of 11.2 points to a student's STAR Early Literacy spring score, 21.8 points to a student's STAR Mathematics spring score, and 47.9 points to a student's STAR Reading spring score compared to students who had never had a [program] teacher. The 47.9 points in STAR Reading translated to an effect size of 0.29, a level considered substantively important by the What Works Clearinghouse evidence standards (U.S. Depart of Ed, 2013).

Analysis of the domains tested within each STAR assessment also illuminates our interpretation of the student academic changes show in this study. For example, it is unsurprising that the effect size on STAR Early Literacy scores is smaller than for STAR Mathematics or STAR Reading given that the STAR Early Literacy assessment focuses on domains foundational for later reading and math skills. While some early literacy sub-domains integrate well with science instruction (e.g., Vocabulary), other assessed early literacy domains are less frequently integrated into science instruction (e.g., Phonics, Concept of Word, and Phonemic Awareness).

Overall, this study demonstrates that aligning early elementary science instruction to the *Framework*, in the context of a program that also integrates family and community science learning, can lead to gains in literacy and mathematics. Our work therefore supports the idea that science is not an "extra" classroom box to check off but rather a framework for teaching literacy, reading, and mathematics skills in the context of science.

## Implications for Policy

Considering the recent emphasis on science instruction for early childhood classrooms, such as the April 2016 White House event in support of several public and private initiatives focusing on STEM for young children (Samuels, 2016), it is worthwhile to consider the implications of this work for science policy. Achievement gaps in literacy and numeracy in early childhood, which have repeatedly been shown to predict later reading and mathematics achievement gaps (e.g., Chatterji, 2006; Downey, von Hippel, & Broh, 2004; Jordan, Kaplan, Ramineni, & Locuniak, 2009), receive significant attention through programs such as Head Start and Early Reading First. However, the science achievement gap receives less attention (Tate, Jones, Thorne-Wallington, & Hoglebe, 2012). This is significant because recent work demonstrates that the science achievement gap begins in kindergarten and persists at least to eighth grade (Morgan, Farkas, Hillemeier, & Maczuga, 2016). Further, elementary instructional time for science, which can increase science achievement, has been dropping in the U.S. (Blank, 2013).

This study suggests that the achievement gaps in all three areas can be addressed by providing *Framework*-aligned science instruction in early elementary classrooms. Including science instruction in early childhood and early elementary classrooms provides opportunities to increase science achievement (Blank, 2013); our work suggests that aligning that science instruction with the *Framework* can improve students' achievement in early literacy, reading, and mathematics. We note that the gains measured for students in mathematics and reading in this study were comparable to the gaps measured for minority and non-minority students. Varelas and her colleagues (2014) also demonstrated that students of color, when given access to quality science instruction that accounts for the knowledge that they bring to the classroom, demonstrate the kind of scientific thinking advocated by reform proposals. Policymakers should therefore support NGSS implementation and the adoption of *Framework*-aligned science curricula in early childhood and early elementary classrooms as a means for reducing achievement gaps in science, reading, and mathematics.

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# Liberty and Justice for All: A Global View of Corporal Punishment in Schools

Angela Farmer

Mississippi State University, USA  
asfarmer@colled.msstate.edu

## Abstract

Corporal punishment was outlawed as early as 1867 in some States; however, over 160,000 students are administered painful discipline each year in public schools (Gardner, 2016). While this is significantly below the 226,190 students assaulted in 2006 (Eveleth, 2014), it remains an alarming and figure which challenges one's social conscience as both a practitioner as well as a humanitarian.

In addition to the irony of corporal punishment as a means to reduce aggression, there is an even more complex and disturbing thread within the web of childhood assault. Given that 4.5 million students currently in K-12 schools have been sexually abused by an educator (Palmer, 2012), it is no unrealistic conjecture that these educators are likely to be the ones most supportive of such protocols whereby children could be struck with purposeful intensity.

Unfortunately, little evidence exists where federal actions have sided with the protection of children's rights, leaving in place the 1977 case of *Ingraham v. Wright* which allows for the cruel and unusual punishment of children, excluding them from the Protection of the 14<sup>th</sup> Amendment, as it was intended for the protection of convicted criminals not children (Morones, 2013).

Each morning across the nation, children in chorus recite the following: "I pledge Allegiance to the flag of the United States of America, and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all" (Bellamy, 1892). Perhaps it is time to reexamine the liberty and justice to which they are entitled.

## Introduction

Given that the Constitution of the United States of America grants the responsibility of education to each of its states, there are some significant disagreements with regard to the ways children in schools should be disciplined. This paper proposes to explore how the United States currently allows the use of corporal punishment in schools to be dictated by the individual states. Further, the segue between the use of such a tactile disciplinary policy and the apparent access it may grant pedophiles within the school setting is explored.

While one may initially see corporal punishment as an acceptable and readily available tool for use in schools to mitigate negative behaviors, there are concerns that the acceptance of discipline with force used upon others, especially when used by adults against children, may become magnified within the school setting, leading to unanticipated, negative consequences, impacting lives for generations to come.

Corporal punishment is defined as the use of physical force with the intention of causing a child to experience pain for the purpose of correction of the child's behavior (Cope, 2010). However innocuous this definition may present, one must appreciate the broad implications and interpretations associated with this type of negative feedback. According to the Straus Theoretical Model of Corporal Punishment and Feedback Loops, there are three causes associated with corporal punishment: distal causes, mezzo causes and proximate causes (Straus, 2010).

Distal causes on the part of the aggressor may include personal violence that he may have experienced, as well as often a low level of educational success. Other such stresses on a distal level include war and societal inequity (Straus, 2010). "Spare the rod, spoil the child" advocates of corporal punishment in schools are overshadowed by public opinion, with 72% of respondents opposed to this type of discipline. Even in the South, where corporal punishment is the most concentrated, only 35% condoned the practice (Cohen, 2012). Furthermore, "The very act of resorting to the rod demonstrates the incapacity of the teacher for one of the most important parts of his vocation, namely, school government" (Frank, 2013).

Mezzo causes differed in the climate of corporal punishment being legally permissible as well as normal pattern of behavior, especially in violent neighborhoods (Straus, 2010). Furthermore, patterns of punishment extend beyond strikes with a ruler to hitting a child with a wooden paddle with significant force. While providing outlier cases in extreme situations such as the following, the potential for such situations to be in any way facilitated by an educational institution is of significant concern. The mother of one child stated that her child's bottom "almost looked like it had been burned and blistered, it was so bad" (Cohen, 2012). Students are typically put into a bent position with some reports indicating that students are disciplined lying supine on the floor. One father of an 11-year-old child in Texas accounted the following:

"The first swat knocked him down.....when he fell, the principal said he had five seconds to get back up, or he'd start all over again....it took him over a minute to get up again. They gave him two more swats. The principal had to go to the nurse's office to get my son's asthma inhaler at that point. When my son came home, my wife found severe bruising on his buttocks and his lower back. His butt was just covered" (Adwar, 2014). Proximate causes are associated with community advice, parental violence in the home and social stress (Straus, 2010).

In addition to the concerns raised from the general definition and interpretation of corporal punishment in public schools, the exponentially more concerning data which identifies the prevalence of sexual abuse by educators within the school setting led the researcher to explore the possibility that children in schools which allow corporal punishment could be at even greater risk of abuse by a pedophile, given the tolerance in that setting for an initial expression of tactile discipline. With evidence such as the Associated Press' investigation which found within a span of only four years, that 2,570 educators' licenses were removed for sexual misconduct (Associated Press, 2015), clearly there is a significant data on the existence and prevalence of such

unconscionable behaviors which are illegal and intolerable by society.

### **Literature Review**

The United Nations Convention on the Rights of the Child (UNCRC) focused on the physical, social, cultural, political, and civil rights of children. Of the 195 countries to attend this convention, only the United States and Somalia failed to ratify this agreement (Frank, 2013). Sweden, in 1958, was the first country in the world to prohibit corporal punishment in schools. Countries who have clearly articulated the rights of the child include the following:

Sweden: “Children are to be treated with respect for their person and individuality and may not be subjected to corporal punishment or any other humiliating treatment”.

Denmark: “The child has the right to care and security. He shall be treated with respect for his personality and may not be subjected to corporal punishment or any other offensive treatment.”

Norway: “The child shall not be exposed to physical violence or to treatment which can threaten his physical and mental health.”

Austria: Prohibits inflicting physical or mental harm.

Germany: “Children have the right to be brought up without the use of force. Physical punishment, the causing of psychological harm and other degrading measures are forbidden.”

England: Corporal punishment was prohibited beginning in 1986.  
(Schmueli, 2010).

U.S.A: While a majority of states have outlawed this disciplinary tactic, 19 states still allow corporal punishment (Frank, 2013).

The abolition of corporal punishment reflects a change in moral beliefs. More people believe it is immoral to hit children, just as they came to believe it is immoral to own slaves or to “physically chastise an errant wife”, the common law right of husbands until the late nineteenth century (Straus, 2010).

Although “a touch causing bodily injury is a felony in most states where the perpetrator is over 18 and the victim is under 14”(Frank, 2013), in the United States, some states still permit corporal punishment in schools. While corporal punishment in schools was initially used a readily accessible tool to cause an immediate change in behavior, the value of its utilization as well as the unanticipated consequences, may well justify its reevaluation. Typically, in states which allow corporal punishment, school officials have the option to repeatedly strike children rather than to employ another, less aggressive form of discipline (Adwar, 2014). With over 200,000 school children struck each year in public schools (Pearson, 2007), various monikers have been established. Whether it is

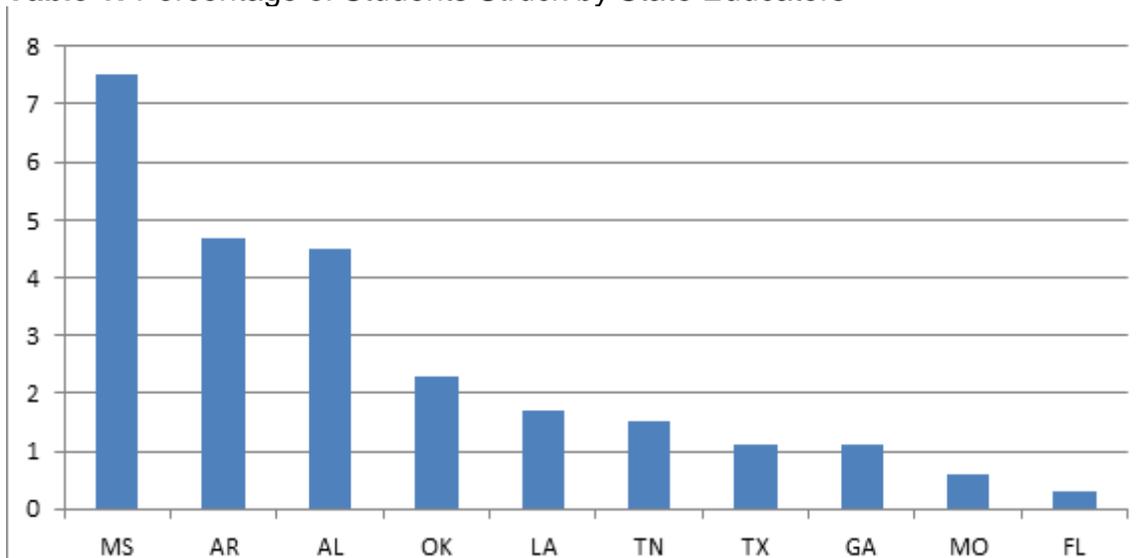
to spank, smack, slap, pop, beat, paddle, puch, whup, whip or hit, the effect appears to be consistently detrimental (Gershoff, 2010) and fails to provide positive academic or behavioral outcomes.

According to a testimony released by edworkforc.house.gov, “There is no clear evidence that punishment leads to better control in the classroom. Physically punishing children has *never* been shown to enhance moral character development...Children subjected to corporal punishment in school...are being physically, emotionally, and mentally abused...creating an unproductive, nullifying, and punitive environment where children become victims” (Greydanus).

There is reasonable concern that creating a platform for children to be physically assaulted, even by somewhat minimally invasive means, by their supervising adults, may have devastating and unanticipated effects. In “The sex offender no one suspects,” Anne Kington details how the trust both the students and parents have for the teachers is “exactly what allows them to offend.” Incredibly, during the trial of public opinion many such offenders are rallied as “excellent teachers” (Kington, 2014).

The states with the highest percentage of students struck each year by educators are as follows:

**Table 1:** Percentage of Students Struck by State Educators

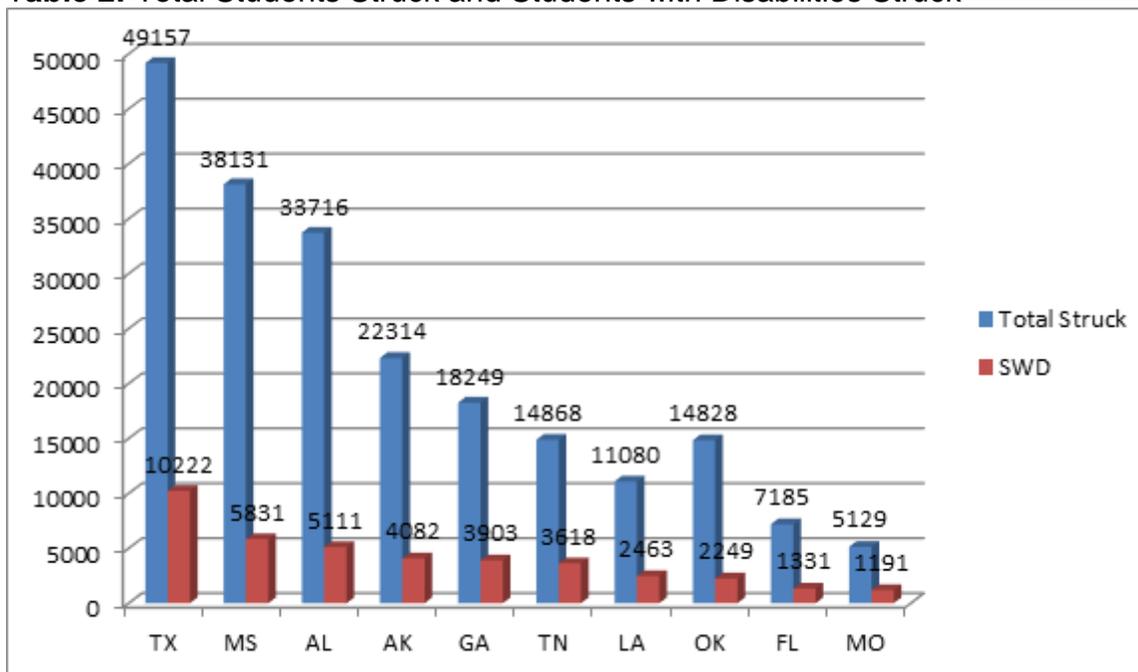


There is also an issue when one disaggregates the data into categories based on ethnicity and disability status. The next referenced chart allows the reader to view the data comparatively to better appreciate how many students, for example, are impacted by Texas’s 1.1% where 49,157 students received corporal punishment in 2006. This volume of this quantitative data alone could lead one to be concerned that allowing or rather advocating for the practice of corporal punishment could create an environment described by experts as, “unproductive, nullify, and punitive,” causing children to become victims (Greydanus).

In cases in which an unidentified pedophile works within the school setting, children in institutions which allow corporal punishment may be at even greater risk. Focusing on the most vulnerable populations within schools which allow corporal punishment, students with disabilities, present aggressors an ideal candidate for abuse. While corporal punishment may leave bruises or blisters, sexual assault leaves a lifetime of scars that often never truly heal. Given that abused children in this scenario are likely frightened and confused, it is no surprise that 86% or more of sexual abuse incidents against children are never reported (Bernier, 2015). This is a most frightening proposition, devoid of rational thinking and laced with disregard for the safety and protection of children.

In order to provide clarity with regard to special population assault, the following chart is presented. Total students struck and highlighted portions which reflect struck students with disabilities (SWD).

**Table 2: Total Students Struck and Students with Disabilities Struck**



Additionally and remarkably, there is also a marked disparity in the impact of corporal punishment on different ethnicities. Although corporal punishment lends itself to overall, negative behavioral consequences in children, impacts appear to be more detrimental to African American youth, particularly males (Lansford, 2010). Studies of corporal punishment of all adolescents, however, independent of ethnicity, find outcomes to be “predominately detrimental” and “likely to be futile and counterproductive” (Cope, 2010). Furthermore, the National Longitudinal Survey of Youth found children’s antisocial behaviors to increase proportionally to their exposure to corporal punishment (Lansford, 2010). Additional research on corporal punishment, independent of gender and ethnicity, is entirely consistent: the more corporal punishment is used, the more aggressive the children become (Gershoff, 2010).

In order to provide a cursory legal review on the incidences of the cases of corporal punishment as well as sexual abuse in schools, the following excerpts serve to provide insight in to the problem.

1977 *Ingraham v. Wright*: an eighth grade boy was disciplined for being “slow to respond to his teacher’s instructions... He was hit more than twenty times so severely he suffered a hematoma and was unable to attend school for several days” (Frank, 2013).

1997 *Saylor v. Board of Education of Harlan County, Kentucky*: Following a fourteen-year-old girl’s, altercation with another student, the teacher gave each student “five licks with the paddle”. Unique to the case is the notice that the student had been “spanked” by five different teachers already that day (Wasserman, 2010).

2001 *Johnson v. Newburgh Enlarged School District*: Gym teacher assaulted an eighth grade student by grabbing him by the throat, screaming threats, and lifting him off the ground by his neck, dragging him to the bleachers, choking him and slamming his head against the bleachers four times. The assault was only stopped by another student’s intervention (Wasserman, 2010).

Connecting corporal punishment and its relationship to or association with child sexual abuse is a complex endeavor, given that the majority of the abuse is never reported. However incomplete, even relying simply upon the data that is available, an adequate cause for debate is clearly provided. While corporal punishment’s impact can range from what was referred to by two, high school students as a “creepiness factor” (Haynes, 2012) of having a male teacher monitored by another male teacher, paddle a female student, all the way to extreme and indisputable incidences of sexual assault, benefits of corporal punishment in schools are nearly impossible to quantify or to support with factual data.

Furthermore, arguments countering with the benefit of corporal punishment appear to have been repeatedly debunked by the literature. Given the reported findings which included 2,570 educators whose teaching licenses were removed for allegations of sexual misconduct just between the years of 2001-2005 (Associated Press, 2015) one may begin to realize how states’ historical perspectives on corporal punishment in schools may be ready for a reevaluation.

Looking further, research ascribes to the idea of an evolution from victim to one who victimizes as child sexual abusers often report a history of abuse (Knopp, 1984). Additionally, researchers suggest that that there is often a tendency to abuse the victim in a way that replicates the offender's own experience of abuse” (Hilton & Mezey, 1996).

## **Conclusion**

Given that corporal punishment in public schools is prohibited in all European countries (Schmueli, 2010), one must call into question the present practice occurring in 2016 in

19 states (Frank, 2013). According to the Office for Civil Rights at the U.S. Department of Education, these 19 states account for more than 160,000 students being struck each year in public schools (Gardner, 2008). Independent of age, ethnicity, gender or disability, the data on corporal punishment offers a concerning and even somewhat frightening vision of what can happen when adults in a school setting elect corporal punishment. While this in no way asserts that the use of corporal punishment is intended by any educational entity to provide a segue for deviant behaviors toward children, it does cause one to reevaluate his position on the use of corporal punishment a preferred disciplinary means.

Certainly not a new cause on which to propose legal reevaluation, the following letter to then President Clinton in 1993, offered the following: “107 Organizations Call for an End to Corporal Punishment in the Schools in the United States” (<http://www.nospank.net/endcp.htm>). Highlighted in the narrative were excerpts from Dr. Morris Wessell, a pediatrician and clinical professor of Pediatric Medicine at Yale University School of Medicine who wrote, “Beaten and battered children are more likely to become adults who have inadequate control of their aggressive feelings, who therefore strike out mercilessly against children, spouses, friends and sometimes even other members of society.” The letter cites the protection from battery as a routine administrative procedure for all groups, agricultural and factory workers, military recruits, .....convicts, suspects, women, elderly....every group, except children.

Given the abundant data on the negative effects of corporal punishment by educators in any clinical setting, the potential pathway to sexual abuse, and the dramatic disparity between populations targeted for assault, it may be difficult to imagine a logical and data driven justification for the continued usage of corporal punishment in schools. Perhaps additional research into establishing alternative disciplinary practices and consistently creating monitoring systems and barriers to any type of abuse within the sanctity of the school setting will help provide educators, parents, and children a safe and secure learning environment, providing liberty and justice for all.

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# **A Pilot Study: Preservice Early Childhood Teachers' Perspective on Giftedness in Early Childhood**

Gulcin Bilgener

University of South Florida, USA  
gbilgener@mail.usf.edu

Early childhood education offers young children an excellent experience to socialize with their peers and nurture their developmental areas. While an early childhood education teacher is creating a learning environment, s/he should recognize the fact that each student in the kindergarten classroom has different and wide range of abilities. The earlier the teacher of a young gifted student recognizes and fosters the abilities of the gifted child, the better their chances are to actualize their full potential (Feldman, 1980). In this sense, the early childhood education teachers' perspectives and understanding about giftedness in early years have an influence on learning settings they created for young gifted students in their classroom. Therefore, the purpose of this interview study is to investigate the perspective of the preservice early childhood education teachers on giftedness in early childhood. This study took place in a research based South Eastern Public University, which offers a program that meet State requirements for the early childhood educator. Three female preservice teachers became participants of semi-structured interview. The results showed that preservice teachers are uncertain about the definition of the giftedness and characteristic of the gifted child. Even though they are aware the education of the young gifted students should be distinctively unique, they do not have enough knowledge to utilize tools and strategies for challenging young gifted students in their classroom.

**Keywords:** preservice teacher, early childhood teacher, giftedness, young gifted

# Analysis of the Cognitive Demand on Preschool and Primary Grade Students Initiated by Teachers' Read-aloud of Fictional and Informative Texts

Anne-Marie Dionne

University of Ottawa, Canada  
adionne@uottawa.ca

## Abstract

This study aims to analyze the extratextual utterances of preschool and primary teachers when reading aloud for their students. We conducted structured observations when they were reading fiction and informational texts. The complexity of the cognitive demand, ensued from their extratextual utterances, was the main criteria from which we made comparisons.

Teachers' read-aloud practices in preschool and primary grades are well documented. It is believed that this is the most single recommended practice given by researchers in the matter of reading instruction (Moss, 2003). In fact, read-aloud has been shown to offer numerous benefits to students in the areas of language growth and reading achievement (Pressley, 2005). When reading aloud to their students, teachers are modeling vocabulary development, reading fluency, and comprehension strategies. They are also encouraging students to interact with the texts, which make them active participants in their own learning (Fountas & Pinnell, 2006). However, as stated by Yopp & Yopp (2012), teachers are rarely choosing informational texts when they read aloud, as their selections for this venue are mainly fictional stories. For many researchers (i.e. Duke, 2003; Wigent, 2013), this is worrisome since children's limited exposure to informational texts could hinder their « ability to navigate the genres that dominate the later years of schooling and adulthood » (Yopp & Yopp, p. 481).

Exposing students to informational texts could be done in different ways in school. However, since read-aloud appears to be such a common and efficient practice, it is important to examine more deeply how preschool and primary grade teachers are interacting with students in regards to the type of text they choose for this activity. Moreover, since they are used to choosing fictional stories for this task, it could be interesting to compare their extratextual utterances when they, instead, choose to read an informational text.

Hammett Price, van Kleeck and Huberty (2009) define extratextual utterances as being the talk that goes beyond actual text reading. An effective read-aloud involves much more than simply opening up a book and enunciating the written words. When reading to the students, the teacher entertains a dialogue with them, becoming a mediator between the text, the social context and the listeners. Such discussions are scaffolding their comprehension and their engagement with the text in ways that have been shown to facilitate language and literacy development (Pressley, 2005). Moreover, it seems that the quality of the teachers' extratextual utterances is offering different learning opportunities to the students of different ages (Dickinson & Smith, 1994). Also, as

Moschovaki & Meadows (2005) demonstrated, some of the teachers' extratextual utterances are prompting a low, a medium or a high cognitive demand on their students. Their extratextual utterances are fluctuating according to the type of text being read, with informational texts prompting higher cognitive demands.

To date, researchers have underlined that read-aloud could be a profitable practice to expose preschool and primary grade students to a variety of texts. However, informational texts are seldom the teachers' choice for this activity. It has also been sustained that efficient read-aloud depends on the quality of the extratextual utterances of the teachers, which have been shown to fluctuate in regards to children's age and the type of text being read aloud to them. Hence, it could be enlightening to analyze those two factors (grade level and type of text) in order to get a deeper understanding concerning teachers' read-aloud in preschool and primary grade classes. In this research we aim to answer the following question :

How do the extratextual utterances of the preschool and primary grade teachers fluctuate when they are reading aloud fictional or informational texts to their students in regards to the complexity of the cognitive demands?

Ten preschool teachers and twelve primary grade teachers (from grade 1 to grade 3) were the participants of this study. The data collection was done by conducting two sessions of structured observations in each classroom. One of those sessions was dedicated to the read-aloud of an informational text and the other to the read-aloud of a fictional story. Those two sessions of observation were followed by a semi-directed interview regarding the teacher's preparation of those two periods of teaching as well as specific aspects that were noted during the observations, especially in regards to their extratextual utterances.

In order to take into account the complexity of the cognitive demand during the read-aloud of the informational or the fictional texts, a content analysis was conducted on all sessions of observations. This procedure allows us to classify the extratextual utterances of the teachers into thirteen exclusive categories that were determined from the review of the literature on the subject. For each category, the frequencies were noted in order to later conduct statistical analyses. As for the interviews, they were used as a means of triangulation of the observations.

Preliminary results are showing that there is little variability in the extratextual utterances of preschool and primary teachers, which is an indication that they do not adapt their interactions to the students' grade level. Moreover, for all teachers, the reading of the fictional text brings more extratextual utterances of low cognitive demands than the reading of the informational text. This is an indication that teachers should choose a variety of texts for their read-aloud activities.

Results are also pointing to some other distinctive elements. By interviewing the teachers, it was possible for many of them to underscore that they perceived that read-aloud of fictional or informational texts have different goals : fictional texts are read for

pleasure and informational texts are read to acquire some knowledge of the world. Hence, when they are reading to their students, they perceive that they have to adapt their extratextual utterances according to these goals. These results bring out the urgency for teachers to become aware of the numerous benefits that the reading aloud of each type of texts could bring to their students, especially the informational texts. The consequences of such beliefs in part of teachers will be discussed further in our presentation.

**Keywords:** read-aloud, cognitive demand, informational text, fictional text, preschool and primary classes

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# The Epistemic Climate of a Fourth Grade Lesson About the Ecosystem of the Woodlands.

Florian Feucht

The University of Toledo, USA  
Florian.Feucht@UToledo.edu

## Abstract

This qualitative study explores the epistemic climate of a science lesson about the ecosystem of the woodlands in a fourth grade classroom. The Educational Model of Personal Epistemology (EMPE) was used to define components and relations of the epistemic climate. Interviews with students and the teacher, classroom observations, and document analyses of handouts, textbooks, and other materials were conducted and triangulated to describe the overall nature of the epistemic climate of the 60-minute lesson. The results describe an epistemic climate that was dominated by an overall absolutistic (truth as black and white) pattern with an evaluativistic (truth as shades of grey) notion. The epistemic belief pattern of the teacher was mainly evaluativistic in nature, while the epistemic patterns of the students, instruction, and educational materials were more absolutistic. Conclusions for classroom teaching and teacher training are discussed.

**Keywords:** science education, personal epistemology, epistemic climate, classroom research

# Getting Students Engaged in Reading: How Can Educators Select Books That Interest, Engage and Encourage Young Students to Read?

Beth Kara Dawkins

Trinity Washington University, USA  
bethkara11@aol.com

## Abstract

According to national data, student reading achievement scores have been inconsistent across elementary, middle and high-school age groups, and also across racial/ethnic groups (National Assessment of Educational Progress, 2012). While some gains have been made in reading achievement, and the achievement gap has narrowed slightly (National Assessment of Educational Progress, 2012), reading achievement remains an area of focus for educators, and an area that requires continued research, evaluation, and improvement.

Reading achievement is connected to reading amount, with data indicating the more students read, are exposed to print, and have interactions with text, the better their reading skills will become (Allington, 2001; Anderson, Wilson & Fielding, 1988). Reading amount is connected to reading engagement, with numerous studies indicating the more students find books and reading to be an engaging experience, the more likely they are to read (Guthrie & Wigfield, 2000). Reading amount is connected to reading interest, as research highlights the more students find a literary piece of interest, the more likely they are to read it, read it repeatedly, and to recommend the literacy piece to others (Dawkins, 2010; Guthrie & Wigfield, 2000). Reading interest involves many factors, including the genre of the book, physical book characteristics, and multicultural representation (Dawkins, 2010; Harkrader & Moore, 1997; Nodelman, 1988; Williams, 2008). This presentation focuses on the factor of multicultural representation in picture books and how it relates to reading interest.

This presentation will offer insight to educators regarding book selection patterns of early childhood and elementary-aged students, and the strategies young readers use when selecting literature to read, to re-read, and to recommend to peers. With increased knowledge regarding book selection patterns of young readers, and characteristics about books and stories young readers tend to find interesting, teachers can offer students books that will likely pique their interest, which can positively effect and increase reading engagement, reading amount, and overall reading achievement.

**Keywords:** reading engagement, reading interest, picture books, multicultural children's literature

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# **The Impact of Stress on Literacy Development in Children With Special Needs Who Live in Urban Environments**

James T. Jackson

Howard University, USA  
jt\_jackson@howard.edu

## **Abstract**

Stress, a phenomenon that has been described as a state of emotional tension arising from unmet needs or environmental threats, affects students in ways that educators may not realize. Among the many effects of stress is the difficulty in concentrating on and attending to tasks. Children who live in urban areas and have special education needs are often confronted with issues that will not allow them to focus on academic subjects, particularly those that require a connection to literacy. These students are often impacted by stressors of violence, poverty, family dynamics, and other issues that make it difficult for them to focus properly. Educators, administrators, and policy-makers should be concerned and develop strategies to address these stressors to promote more academic involvement. The purpose of this presentation will be to share recent survey data that was collected from culturally diverse subjects attending schools in the northeast region of the United States and how stress impacts their literacy development. The condition of stress will be discussed in context why subjects were stressed and how it affected literacy. A theoretical model will be presented that addresses stress and its impact on children. The presentation will conclude with stress management strategies for teachers to use in classrooms as they attempt to bridge the gaps in academic achievement for students in under-served communities and Title 1 schools. Moreover, recommendations will be made to administrators, policy-makers and others about the need to address the issue of stress in educational environments.

**Keywords:** stress, literacy

# Using Reader's Theatre to Promote Fluency in Struggling Readers

James T. Jackson

Howard University, USA  
jt\_jackson@howard.edu

## **Abstract**

Struggling readers are often reluctant to engage in reading related activities. Much of this reluctance is often associated with four most common causes of reading underachievement. They include 1) reading role models and life experiences, 2) the acquisition of reading skills (e.g., phonics and comprehension), 3) visual processing, and 4) learning disabilities. When teachers proactively address these underdeveloped skills struggling readers can make progress. Reader's theatre is an approach that has been well-documented to encourage fluency in the development of literacy skills. Research has indicated that when children are exposed to reader's theatre, they become active participants in the reading process. The presentation will focus on how reader's theatre has been used in the urban context to teach students to be better engaged with literacy development. Participants may expect to gain an understanding of reader's theatre, research results that show its impact on fluency development, how it can be used to address fluency, and its application within the classroom context. The presentation will conclude with recommendations for practitioners, administrators, and policy makers as they contemplate more effective ways to promote literacy development in students struggling to read.

**Keywords:** readers' theatre, fluency, struggling readers

# Managing Disruptive Behaviours of Challenging Students in Turkish Primary Schools

Lutfi Ozturk<sup>1</sup>, Poppy Nash<sup>2</sup> and Mehmet Ozturk<sup>3</sup>

The University of York, United Kingdom

<sup>1</sup>lutfi.ozturk@york.ac.uk

<sup>2</sup>poppy.nash@york.ac.uk

University of South Florida, USA

<sup>3</sup>ozturk@mail.usf.edu

## Abstract

This research is a qualitative study and aims to identify perceptions and attitudes of Turkish primary school teachers, regarding the effective behaviour management of challenging students. Reference is made to the relevance of Bowlby's (e.g. 1969) Attachment theory in understanding and managing disruptive behaviour of the most challenging students in the classroom. The Attachment theory perspective is an innovatory approach for Turkish schools, drawn from best practice and research evidence, such as Attachment Aware Schools in the United Kingdom. The Attachment perspective is a new concept for the Turkish education system and the data will offer an insight into the process of policy-making and practices of Turkish primary school teachers. All schools in Turkey have to follow the national curriculum and behaviour management policies that are designed by the Ministry of National Education. These policies are designed with a sanctions and rewards perspective, which focuses on the need to discipline disruptive students, whereas an Attachment perspective seeks to understand disruptive behaviour from a psychological/psychodynamic viewpoint.

Effective behaviour management in primary classrooms needs a specifically formed behaviour management strategy. The existing literature shows that behaviour policies and practices of primary school teachers should be enhanced in different ways for different children (Atici & Merry, 2001; Geddes, 2006; Leflot et al. 2010; Durmuscelebi, 2010). According to the report published by the House of Commons Education Committee (2011), disruptive behaviours of challenging students can disrupt learning and teaching in the classroom for all concerned. Research literature identifies behaviour as one of the main stressors for teachers and reasons for leaving the profession (Kyriacou, 2009). There are many forms of disruptive behaviours that may adversely affect the learning environment for children at primary school, namely; bullying, vandalism, violence, fighting, distracting peers and/or teacher, skipping school and so forth (Atici & Merry, 2001; Türnüklü & Galton, 2001; Luiselli et al. 2005; Geddes, 2006; Hempel-Jorgensen, 2009; Nash et al. 2015). According to Atici and Merry (2001), family problems is the most important cause of misbehaving at school in both Turkish and British primary schools. The majority of the teacher participants in both countries highlighted that misbehaviour continues to be a persistent challenge for them.

The proposed paper will report on data collected from semi-structured interviews with 20 primary school teachers in Turkey. Participants were asked a range of questions

focusing on Attachment theory, educational policy and teaching practice. Most of the teachers mentioned that managing disruptive students continues to be a challenge and notable stressor during their lessons. Moreover, three quarters of teachers indicated that they need more support and guidance from their school leadership team and external sources, in terms of how best to manage the most challenging students. It is anticipated that the data will indicate areas for staff training.

In this study, the teachers who were interviewed believe that a revision of the curriculum is needed for managing disruptive behaviours in primary classrooms. Classroom size is another problem in primary schools and almost all of the participants emphasized that the high number of students in classrooms is an obstacle in supporting every child individually. Moreover, participants reported that a collaboration between teachers, school leadership team, parents and behavioural experts is crucial (for example; psychologists, counsellors), because teachers feel ill-equipped to effectively manage the disruptive behaviours of the most challenging students at school.

In summary, the proposed paper will offer an insight into the educational practices of primary school teachers in Turkey, regarding the management of disruptive behaviours of the most challenging students. A compelling case will be made for the adoption of an Attachment-based approach to behaviour management, founded on understanding disruptive behaviour from a psychological/psychodynamic perspective.

**Keywords:** primary schools, behaviour management, challenging students, attachment theory

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# Brain Boosts: Does the Type of Movement Matter in the Elementary School Classroom?

Elizabeth Whitney<sup>1</sup>, Alicia Fedewa<sup>2</sup>, Heather Erwin<sup>3</sup>, Ahn Soyeon<sup>4</sup> and Minnah Farook<sup>5</sup>

The University of Kentucky, USA

<sup>1</sup>liz.fettrow@uky.edu

<sup>2</sup>alicia.fedewa@uky.edu

<sup>3</sup>herwi2@uky.edu

<sup>4</sup>soyeon.lee@uky.edu

<sup>5</sup>minnah.farook@uky.edu

## Abstract

**Background:** The evidence for positive health outcomes related to physical activity among children is abundant. As such, physical activity among children can lead to increased physical fitness, decreased body fat, and decreased risk for cardiovascular problems, and continuing research indicates physical activity has been linked with better cognitive control and memory in children. The above mentioned findings suggest that physical activity is associated with positive health outcomes and positive changes in the brain that can improve attention, learning, and memory—all important correlates with academic achievement in school, however, no research to date has examined how the type of physical activity in which youth are engaged affects these variables. **Purpose:** The purpose of this study was to determine whether there was a difference in purely aerobic based classroom physical activity breaks/boosts (ex: jogging in place) and academic based classroom physical activity breaks/boosts (ex: jogging in place while spelling vocabulary words) on children's achievement outcomes. The first research question that guided this study was 1. Do solely aerobic-based movement breaks/boosts result in larger achievement gains than academic-driven movement breaks/boosts? The second research question undergirding this research was 2. Are there differences in the levels of physical activity obtained for children who engage in academic-driven movement breaks/boosts versus purely aerobic-based breaks? **Methods:** Elementary school children in grades 3 - 5, N = 647, from four schools (two in each condition, tx/control) participated in the sample. Two schools were randomly assigned to be treatment schools and the other two were active control schools. The classrooms in the two treatment schools were provided with a license to access the full GoNoodle online movement break platform ([www.gonoodle.com](http://www.gonoodle.com)). The control schools were not provided with full access to the GoNoodle platform and therefore did not have the ability to use academic-infused content in their breaks/boosts. Schools were located in the southeastern United States in a geographically urban area. Mean school-level demographics for the four schools were as follows: 59.5% White, 18.3% African American, 12.5% Hispanic, 4% Asian, and 5.7% Other. Almost half of the students qualified for free and reduced lunch (47%) and approximately 10% of students were classified as English Language Learners (ELL). Parental N = 176 children in treatment schools and N = 284 in the control schools. Activity (Walk4Life LS 2500 pedometers), achievement (standardized test scores), and behavioral (teacher prompts/student compliance) data were collected on 10 days for each classroom in the sample during each of the three waves of the study. **Results:** Children in purely aerobic-based

breaks/boosts (control) had significantly greater increase in steps over time ( $b = 00.33$ ,  $SE 0.05$ ,  $t = -6.24$ ,  $p < .01$ ) than those in core-content based movement breaks/boosts. Results also indicated that children who were engaged in in purely aerobic movement breaks showed significant increase in reading scores over time, compared to their counterparts who received academic based movement breaks ( $t = 2.47$ ,  $p < .01$ ), but this relationship was not significant for mathematics scores ( $t = 2.80$ ,  $p = .005$ ). Results were not significant for the predictors of student behavior between treatment and control classrooms. Discussion: The current study provides some evidence that the type of physical activity break matters in terms of a child's cognitive abilities, but more research is needed to elucidate the effects of extraneous variables on this relationship.

**Keywords:** physical activity, elementary, children, learning, academic, movement.

# Health Fairs as Learning Centers: Stimulating Interest in Health Issues Among Elementary School Students.

Elizabeth Whitney

The University of Kentucky, USA  
liz.fettrow@uky.edu

## Abstract

**Significance:** With the national recommendation that students in grades Pre-K - 2 receive a minimum of 40 hours and students in grades 3 - 12 receive a minimum of 80 hours of health instruction per academic year, programs that support elementary school teachers' capacity to deliver quality health education is essential to helping students avoid or reduce risky health behaviors in youth. Unfortunately, many health education programs and curricula fall short in allowing students to practice skills vital to avoiding or reducing health risk behaviors. Children in the United States are afflicted with health issues that interrupt or interfere with the learning process and the evidence-base has consistently demonstrated that improving the health of students is likely to improve academic achievement (grades, test scores) and other educational outcomes such as increased school attendance, decreased nurse visits, and improved student behavior. Health risks that occur early in a child's life are likely to carry over during the transition into adolescence and adulthood, creating long-term negative effects on health and well being that are largely preventable. In elementary (K – 5) settings, there are typically no trained (as in academic preparation) health educators as classroom teachers. Not having qualified health educators who are prepared to address the health issues of students leaves K – 5 classroom teachers ill prepared to teach health education more than their middle and high school counterparts. Health fairs provide opportunities for health concepts to be addressed with elementary school children in a hands-on, fun, creative, and exciting way. The purpose of a health fair is to stimulate interest in health issues and to expose students to a variety of developmentally appropriate health issues in a compressed period of time. A health fair, in this sense, is a collection of learning centers, each of which increases functional knowledge, develops essential skills, and/or helps students examine their attitudes or beliefs about health topics. While working at a learning center, students are active, engaged, and can process information in the context of their personal experiences or understandings. Learners are encouraged to work at their own pace, selecting from any number of interesting and multisensory activities organized to supplement more formal or larger-group instruction. Well-designed learning centers can: incorporate both independent and collaborative activities, supplement or reinforce basic instruction, provide opportunities for applying higher-order thinking skills and working in multiple learning domains, and provide opportunities for peer-based learning. Therefore, planning should be focused on the following common elements: developmentally appropriate learning objectives or organizing concepts, directions for students working at the center, samples or models of previously completed work, strategies for introducing and sequencing activities, and an evaluation protocol based on the identified objectives. **Methods:** A health fair was implemented with elementary school children from one school located in a geographically rural community in the southeastern US. The health fair was a school-

wide approach, meaning approximately 500 children were provided with the opportunity to engage in the learning centers at various time points throughout the school day. N = 50 pre-service (university) elementary education majors designed health fair stations covering a variety of health topics such as: reading nutrition labels, sun safety, dental hygiene and sugar in foods. Implication/application for Education: Based on the university students' collective responses to the health fair experience, it can be concluded that students' highly rate the experience as being positive, an opportunity to teach health to students, and one that contributes to their confidence to address health issues with students in their K-5 classroom in the future. Overall, the value of this whole-school approach cannot be understated as an opportunity to discuss pertinent health issues with elementary school students and provide them with information they are likely not getting in their general education experience.

**Keywords:** elementary children, health fair, learning stations, health education, teacher education

# The Judicious Parent

Paul Gathercoal

College of Education  
University of Idaho, USA  
gatherco@uidaho.edu

## Abstract

When parents implement *The Judicious Parent* paradigm, their children establish and maintain better interpersonal relationships than children and their parents in families where stimulus/response theory is practiced. There is a transfer effect of good citizenship practiced within the family to other social settings, e.g., school. In families, where the principles of *The Judicious Parent* are applied, parents contribute favorably to children's social development, their sense of autonomy, and they better prepare children for living and learning in a free society.

To ascertain what effect *The Judicious Parent* is having on children's level of social development, the researcher administered a Social Development Questionnaire. The social development questionnaire differentiates between power and affect relationships through a series of eight true/false propositions and places a child's response in one of the four developmental stages "dependent," "rebellion," "cohesion," or "autonomy."

For parents to extend family relationships from social development Stage 1: "Dependent" to Stage 3: "Cohesion," they need to pass through the "Rebellion Stage." Our research indicates conducting family meetings is a vehicle where children can vent their concerns, and even question authority in a civil manner. This "release of social tension" at family meetings does much to reduce the amount of time family relationships spend in Stage 2: "Rebellion." Conducting regular family meetings can quickly move children through to Stage 3: "Cohesion."

**Keywords:** parenting, social development, civics

*The Judicious Parent* is a new paradigm, developed for parents, guardians, and caregivers who aspire to construct a self-governing family culture where children are empowered and become principled, responsible citizens. This new paradigm is designed for anyone who takes responsibility for raising children and who assumes the role of head of the family.

Parents are their children's most important teachers, and children will learn what parents teach—whether positive or negative. When guided by a parent's sound personal and civil moral values, children learn the self-discipline necessary to resolve for themselves the problems they face in the course of normal daily living. As a consequence, parents who are prepared and take the time necessary to impart to their children a more principled level of intellectual and moral understanding, will be helping them to live more peaceful, purposeful and fruitful lives. *The Judicious Parent* provides knowledge about principles of civility that can be taught and integrated into any family

culture; creating a self-governing family. Parents learn the language of civility and provide models and strategies that enhance communication and provide reasoned responses for any problem situation.

*The Judicious Parent* embraces a philosophy and parenting strategies best exemplified with a description of an exercise used to begin workshops and speaking engagements. The exercise is called, "Continuum Building." First, participants are asked what they know about "behavioral" versus "cognitive" approaches to discipline. Participant responses are listed under each philosophy; "behavioral" or "cognitive." For example, under "behavioral," participants often respond with theorists like, Pavlov and Skinner, and with behavioral strategies like stimulus-response, rewards and punishment, and guilt trips. Under "cognitive," participants suggest theorists like, Bandura, Dreikurs, and Glasser, and cite strategies such as modeling, problem-solving, and thinking. Participants are then asked, "If you are going to position yourself with "behavioral" theorists and use "behavioral" strategies, can you use the philosophies and strategies on the "cognitive" end of the continuum?" Participants generally agree they can use philosophies and strategies up and down the continuum from "behavioral" and including "cognitive."

Then, the opposite question is posed, "Can you use the philosophies and strategies on the "behavioral" end of the continuum, if you are going to position yourself with "cognitive" philosophies and strategies?" Participants usually believe they can. This prompts the question, "If you employ behavioral strategies, do you think you will be perceived as a "behaviorist" or a "cognitivist?" Following this question, there is often a solemn moment of reflection.

After a pregnant moment of silence, a declaration is voiced, "If parents are going to align themselves with 'cognitive' philosophies and strategies, they have to give up stimulus-response theory and co-dependent guilt trips. As soon as parents resort to 'behavioral' theory and strategies they undo everything they have tried to build as a "cognitivist." If parents are going to be perceived as "cognitivists," they need to operate at a principled level, employing modeling, supervision, motivational strategies, good questions, and endless patience." When participants have had a moment to process this information, a second and a third continuum are introduced.

Presenting the second continuum, participants are asked what they know about "obedience" versus "responsibility." Responses for "obedience" generally include, doing what you are told to do, following the rules, and stop all feeling and thinking; simply do it. Usually, participants suggest "responsibility" is, doing the right thing, thoughtful responses to situations, and owning the response. For the third continuum, participants are asked about "being good" versus "being wise." Participants suggest "being good" is meeting expectations, following directions, and obeying their elders; it is extrinsic. "Being wise" is thinking before acting, reasoning and deciding, and considering all viable options and following your heart; it is intrinsic. Finally, participants are informed, *The Judicious Parent* is a cognitive philosophy emphasizing responsibility and wisdom. It is all the descriptions on the right side of each continuum. The "Continuum Building"

exercise ends with this (1950) Albert Einstein quote:

*“Great spirits have always found violent opposition from mediocrities. The latter cannot understand it when a man does not thoughtlessly submit to hereditary prejudices, but honestly and courageously uses his intelligence.”*

The hope is, all children will learn to honestly and courageously use their intelligence, as opposed to, thoughtlessly submitting to hereditary prejudices. Children should learn to think for themselves, versus simply learning to behave as they are told. They should take responsibility for their feelings, thoughts and actions, versus simply obeying. They should be wise, versus simply being good. Again, parents are children’s most important teachers, and children will learn what parents teach—whether positive or negative. This new paradigm for parenting helps parents to have a positive influence on their children’s development as thinkers, leaders, and citizens in a free society.

When *The Judicious Parent* is fully implemented as the foundation for building a civil family culture and interpersonal relationships, parents favorably contribute to their children’s social development, urging them toward “autonomy.” Like moral development, social development ascends in stages. The first stage is, “dependent.” The second stage is, “rebellion,” and the third stage is, “cohesion.” The fourth and final stage is, “autonomy.”

Parents can establish a self-governing family culture at the fourth stage of social development, by using the philosophy and strategies embedded in *The Judicious Parent* paradigm. Research, conducted in public schools, investigated classroom groups and measured stages of social development by analyzing anecdotal records, classroom observations, focus group interviews, and the results of a social development questionnaire. The social development questionnaire was developed by The Social Development Group in the Research Branch of the South Australian Department of Education, and it was published in their 1980 book, *Developing the Classroom Group*. The researcher has used this questionnaire over the last thirty years to ascertain students’ levels of social development. By comparing data from the questionnaire with data gathered through qualitative methods, the social development questionnaire has proved to be trustworthy as an adjudicator for determining the stages of social development of intact groups of students. The questionnaire results are trustworthy enough; parents should use it as a predictor of their children’s current stages of social development. This instrument can be employed as a diagnostic tool and the results used to discuss ways the self-governing family can advance to the higher stages of social development.

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# Parental Involvement of Asian American Preschool Children

Mei-Hsiu Chuo<sup>1</sup> and Sheng-Fei Shen<sup>2</sup>

Department of Early Childhood Education  
Asia University, Taiwan (R.O.C.)  
<sup>1</sup>max72621@gmail.com

Department of Early Childhood Education  
Asia University, Taiwan (R.O.C.)  
<sup>2</sup>shen@asia.edu.tw

## Abstract

Home and school symbolize two of the most important frameworks that influence a child's development (Bronfenbrenner, 1986). Parental involvement normally refers to parental contributions to their children's school education by communicating with school faculty and administration, attending school functions, and helping to cultivate child behaviors that support educational achievement (Li, 2006).

The purpose of this study was to determine which of three aspects of parental involvement (Home-Based, School-Based and Home-School Conferencing) correlate positively with preschool children's literacy achievement in English. The study recruited a convenience sample from the Buddha's Light Private School and the Community Center which both serve populations of predominantly Asian American children and families. Families eligible for participation had a child between the ages of three and five years enrolled in these programs. Eighty-one parents were participant this research.

This research study was used the following instruments: Parents' Demographic Questionnaire, and Family Involvement Questionnaire-Early Childhood Survey (FIQ) (Perry, Fantuzzo & Munis, 2002). Parents' demographic questionnaire was used to describe the sample, and FIQ was utilized to examine the rates of Asian American parental participation in their preschool children's early education.

The Family Involvement Questionnaire (FIQ) is a 42-item self-reporting rating scale developed to determine the involvement of parents in their child's education, and items are rated on a 4-point Likert-type scale, ranging from 1 (rarely), 2 (sometimes), 3 (often), to 4 (always), to evaluate the participant's rate of agreement with each item measured.

The founding of this current research revealed Asian American parents responded with the highest levels of participation in Home-Based Involvement and lower levels of participation in School-Based Involvement and Home-School Conferencing. Overall, this research found that Asian American parents responded with the highest levels of participation in Home-Based Involvement. This was probably because Asian American parents have high educational expectations for their children. Conversely, this research found the Asian American parents responded with lower levels of participation in School-Based Involvement and Home-School Conferencing. A possible reason is that Asian American parents had language barriers and limited English proficiency. These

possible reasons may work together to inhibit parents from participating in School-Based Involvement and Home-School Conferencing. Additionally, the findings of this study were important for parents to be made aware that the Home-Based Involvement may contribute positively to children's achievement.

Additionally, preschool teachers and administrators might encourage parental involvement by providing multiple strategies for parents to be engaged with the preschool programs. Finally, teacher educators might use the findings to re-examine the preparation of teachers who will be working with children from diverse cultures.

**Keywords:** parents involvement, asian american, family involvement questionnaire(FIQ)

# Go Figure: Can Gestures Promote Spatial Reasoning?

Amy Lin

Faculty of Education  
Brock University, Canada  
alin@brocku.ca

## Abstract

In order to design innovative technology-facilitated environments that encourages embodied interactions, we must better understand the role of gestures and visual-spatial processing in learning mathematics. Spatial reasoning tasks were designed for touchscreen interfaces and manipulatives with the ultimate objective of exploring how cued body-based expressions affect children reasoning and mathematical thinking during problem solving. In this study, both cued and spontaneous gestures were produced by a small sample of children, aged 4 to 6, while completing spatial reasoning task. Both pointing and representational gestures were observed to be used by children to express spatial recognition and communicate spatial thinking.

**Keywords:** embodied cognition, gestures, spatial reasoning, touchscreen technology

## Introduction

I can remember when my son was a toddler and when someone would say “Is it raining?” he would automatically raise his hand, palm facing upwards, with a quizzical look on his face. Besides being a cute parlour trick, it does demonstrate how gestures can indeed communicate without conveying thoughts in speech, starting at an early age. Gestures have certainly played a role in how people communicate, but can performing bodily actions support thinking?

There are a growing number of research studies based on embodied cognition theories that supports the idea that the physical manipulation of objects and the sense of touch affect thinking and learning (Barsalou, 2008). However, when teaching mathematics, often knowledge is still ideally expressed in verbal and written form and coming from the mind.

This study addresses questions related to embodied interactions and how they can support spatial reasoning of children. Using theoretical perspectives, tasks were designed for touchscreen interfaces and manipulatives providing opportunities for children to access learning through various modalities.

## Does Action Play a Role in Perception and Thinking?

There has been an increasing amount of research over the last two decades in the area of cognitive science and mathematics education focusing on the integral role of the body in cognition development (deFreitas & Sinclair, 2013; Radford, 2009). The evidence in these studies builds on the claim that knowing is not a result of an independent and disembodied mind (Lakoff & Nunez, 2000). It is argued that human cognition is embodied rather than existing in only a mental form, consistent with the idea

that bodily forms of experiences are connected to linguistic forms (Lakoff & Johnson, 2003). Traditionally, mathematical thinking is about intellectual processes where mind alone processed information, not involving any other modalities. Researchers have now challenged this assumption and both the mind and the body are now seen as working together when engaging and learning mathematics (Edwards, 2009).

### **Do Gestures Involving Digital Devices Support Mathematical Thinking?**

Embodied interaction involving digital devices could support cognitive processes - in particular visual and spatial processing. The use of touchscreen technology allows children to produce and move objects using fingers and gestures instead of using a keyboard or a mouse. Interactive gestures can provide a more hands-on experience and support cognition by enabling direct contact and manipulation of objects. Research has shown that a neurofunctional link between fingers and processing of numbers assists children with how they establish number sense (Sinclair & Heyd-Metzuyanim, 2014). The ability to engage the body in interactions with the digital interface does not guarantee learning or improved understanding. The challenge is to effectively map the kinds of movements that come from using a digital interface with explicit learning goals. We call these digital interactions “direct gestural cues” and are used to design tasks. These are important if we want to prescribe bodily actions that directly support the targeted learning outcomes of the activity or task. Explicitly prompting students to gesture while solving problems in math resulted in students producing more insights (Broaders, Cook, Mitchell, & Goldin-Meadow, 2007). Knowledge of how to offload cognition to bodily actions is used to better support children learning mathematical concepts.

A spatial reasoning app was developed for the tablet, allowing interactions for the learning of transformations and making use of direct touch gestures. The tasks developed for this study address the spatial abilities that are age appropriate and include eye-motor coordination, the recognition of shapes in various orientations, shadings, and sizes, perception of spatial relationships, visual memory, and the ability to locate and describe position of shapes.

### **How Do Gestures Support Spatial Thinking?**

For the study, similar tasks were created using concrete materials, including coloured and patterned wooden shapes and pattern blocks. The spatial reasoning tasks developed for both the concrete materials and the touchscreen device address the following key concept: any two-dimensional and three-dimensional shape can be created by combining or dissecting other shapes. Children solved problems combining different two-dimensional shapes resulting in a picture and created two-dimensional shapes by applying simple transformations of slides and flips.

Children of ages 4 to 6 were used in this study. Firstly, children were given time to complete tasks with concrete shapes to form pictures. The children’s hands were videotaped and an analysis of the types of gestures spontaneously produced was completed for each child. This was followed by children using the iPad app to complete a series of spatial tasks. Each child completed two final culminating tasks, first using

pattern blocks for combining shapes in different ways to form triangles, followed by an open-ended imagination spatial question.

The analysis of the gestures produced by children during spatial reasoning tasks showed how various types of gestures revealed embodied knowledge. Pointing gestures and representational gestures were used and could be interpreted as physically linking mental processes to the physical environment to help give the student meaning. The gestures were produced by all children in the culminating tasks to support the claim that cognition is based in the body and that gestures promotes spatial thinking.

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# Using Engineering Design Challenge to Engage Middle Schoolers in Problem-based STEM Learning

Kuldeep Rawat<sup>1</sup> and Tonya Little<sup>2</sup>

Department of Technology  
Elizabeth City State University, USA  
<sup>1</sup>ksrawat@ecu.edu

Riverside Middle School  
Martin County Schools, USA  
<sup>2</sup>tlittle@martin.k12.nc.us

## Abstract

NASA Aerospace Academy program site at Elizabeth City State University (ECSU) partnered with school districts in northeastern North Carolina (NENC) to promote science, technology, engineering, and mathematics (STEM) literacy, prepare and encourage students, especially underserved and underrepresented populations from the region to pursue STEM careers. As part of this program, a “Mission-to-Mars” camp was held simultaneously in four counties surrounding ECSU. All sites used curriculum, developed around NASA’s Mars Exploration Program and Vernier Mars Challenge. One hundred thirty-three (133) middle school students participated in a week-long summer camp hosted concurrently at four school districts. Students were engaged in 36-hours of hands-on activities leading to an engineering design challenge.

Throughout the week activities, students implemented the engineering design method as they work towards building a successful working robot capable of completing each of the tasks in the Martian Challenge. Students had to build a Mars rover robot capable of detecting magnetized versus non-magnetized rocks and retrieve stranded astronaut figurines. Students also designed a Mars colony compound, built hydroponics units, designed a mission patch, and digital storytelling that captured all the week’s activities.

The end of the satellite camp week culminated in a field trip to ECSU, where participants competed in a “Mission-to-Mars” Robotics Challenge along the lines of First Lego League robotics competitions. Evaluation data was gathered through STEM Career Interest Surveys (STEM-CIS), student interviews, teacher interviews/focus group, and students’ evaluation of the hands-on activity sessions.

**Keywords:** STEM Literacy, K-12 Outreach, Robotics, Out-of-School Learning

## Introduction

Several reasons have been identified in literature that affects science and math achievements for students. These reasons include: lack of authentic learning activities in STEM subjects, inadequate K-12 teacher preparation in math and science content, and poor alignment of K-12 and college curricula. These reasons impact students’ interest in STEM, which is as an important factor associated with students’ continued participation in STEM disciplines, and ultimately, their pursuit of STEM careers.

Research has shown that the out-of-school environment advances STEM knowledge and increases interest in STEM-related careers. Hands-on, inquiry-based activities delivered in informal environments can help develop critical thinking skills and play a significant role in increasing students' interest and engagement in STEM and the likelihood that they will consider science-related occupations.

During summer 2016, Elizabeth City State University (ECSU) offered a middle school-focused "Mission-to-Mars" camp to provide hands-on, inquiry-based learning experiences that supports authentic and experiential learning. The "Mission-to-Mars" camp was held simultaneously in four counties surrounding ECSU. The program team developed hands-on learning activities by adopting NASA's Mars Exploration Program and Vernier Mars Challenge. The curriculum and hands-on activities supports the Next Generation Science Standards and contained a strong emphasis on math and science literacy for 21<sup>st</sup> century learners. Students participating in the camp completed a total of thirty-six (36) hours of hands-on activities. These hands-on learning activities integrated robot building, robotics programming, digital storytelling, sensor interfacing, building space habitat, hydroponics, renewable energy, and mission patch design.

### **Mission-to-Mars Challenge Camp - Implementation**

The problem statement defined for the "Mission-to-Mars" challenge is as follows: *"Two astronauts were stranded on Mars while attempting a routing mission to service the rover. A sudden storm has covered their solar panels in dust and most of their backup batteries have run down. Your team of robotics specialists has been brought in to build a robot to retrieve the stranded astronauts, remove the dust from the solar panels, and find the magnetic rocks scattered near the base station."*

Students had to build a Mars rover robot using Lego Mindstorms EV3 platform that would be able to detect magnetized versus non-magnetized rocks, retrieve stranded astronaut figurines, identify live batteries and determine if solar panels were working. Students also designed a Mars colony compound, built hydroponics units and a live divider (a plant wall unit that would co-exist with astronauts) to feed the members of their Mars colony and designed a mission patch that represented all the week's activities. In addition, students put together three-to-five minutes of digital stories summarizing the camp events each day and a digital story that summarized the entire camp at the end of the week.

Throughout the week, students implemented the engineering design method as they work towards building a successful working robot capable of completing each of the tasks in the Martian Challenge. Steps in the Engineering Design method include (i) identifying design objective, (ii) defining goals and identify limitations, (iii) research, (iv) brainstorm potential solution, (v) analyze viability of solution, (vi) choose appropriate solution, (vii) build, (viii) test and evaluate, and (ix) revise and repeat. Teachers reinforced the importance of each step to students as they tackled each new activity. Students used Engineering Notebook that gave the students ability to record the observations and sensor measurement they made during their investigation leading to building and testing Mars rover robot. By coupling robotics design with NASA's space

program, students gained an understanding of scientific principles in a real-world application. Students used voltage probe and magnetic field sensors to build a solar tracker, a battery tester, and a robotic compass. A total of 133 middle grade students participated in the “Mission-to-Mars” summer camps. The participants were comprised of 50.38% male students and 49.62% female students.

Daily camp activities ran from 7.45am to 3pm (Monday to Thursday). Thirty minutes at the end of each day were reserved for teleconference between NASA Aerospace Academy site management team at ECSU and teachers at the school district sites. The end of the camp week culminated in a field trip to ECSU on Friday, where participants competed in a “Mission-to-Mars” Robotics Challenge. Based upon the First Lego League robotics competitions, not only did the robotics teams were expected to build and maneuver a mobile robot, they were also judged by their gracious professionalism. Gracious professionalism is the team’s ability to work together, help teammates and other teams, and treat each other with respect and kindness. The winning team exhibited gracious professionalism, collegiality to other teams during the competition, had outstanding teamwork, exhibited their engineering knowledge and displayed excellent manners.

ECSU facilitated professional development for teachers and teacher’s assistants during a one-day professional development institute held on the campus. All instructors received support from the program management at ECSU through frequent onsite visits and daily conference calls. The student interviews were conducted by an independent evaluator. The evaluator asked about learning environment, STEM activities, and participation. The classroom and lab space used during the camps allowed informal group projects and students were encouraged to work within their own and among other teams during their projects. Although many students felt ill-prepared to build their Lego Robotic vehicle at the beginning of the program, they expressed pride at the end as they determined they felt confident in their ability to pursue engineering design projects. Evaluation for the program culminated with interviews and focus group with instructors. All instructors commented their students had a positive and effective learning experience and felt they received sufficient support from the program leadership at ECSU through frequent onsite visits and daily conference calls.

# Teacher Practitioner Research: Social Justice Action in the Classroom

Frances Vitali<sup>1</sup> and Maria Winfield<sup>2</sup>

The University of New Mexico, USA

<sup>1</sup>fvitali@unm.edu

<sup>2</sup>mwinfield@unm.edu

## Abstract

The word **research** originates from the French word **recherche** meaning to investigate thoroughly; careful or diligent search; studious inquiry or examination (Webster's Ninth New Collegiate Dictionary, p. 1003). **Teacher research** has a sustained history evident in the work of educators such as Pestalozzi, Rousseau, Dewey, Montessori and more recently, Nancy Atwell, Donald Graves, Lucy Calkins, among others (Hubbard & Power, 2012). Early on, Lawrence Stenhouse promoted the idea that successful teacher research is nurtured within a research community. The systematic methodology of using student observations to improve learning and teaching efficacy is still relevant (Hubbard & Power, 2012).

Teacher practitioner research honors teachers as professionals who are experts in their own classrooms. Teacher research reclaims the professional power and expertise educators possess. Practitioner research is known as: action research, practice-centered inquiry, teacher research, teacher-as-scholar, practical inquiry, classroom inquiry, and storytelling school of research. Practitioner research reflects the ability to contribute to student success and learning within reflective practice.

Teacher voices, as collected wisdom, are a refreshing backdrop to the preoccupation of standardized, high stakes testing currently dominating educational landscapes. It is in practitioner research where the richness and power of students' stories unfold. Students become co-researchers who observe, analyze and interpret learning environments while moving toward profound understandings of each other and themselves.

Reflective Teacher Practitioners are ethnographers in their respective classrooms. Such teachers describe their learning environments, along with what is and is not working. From their struggles to teach effectively and become better educators, their questions are borne. Teacher inquiries reflect who they are as teachers and learners, understandings of their students' funds of knowledge, and what is *bugging, nudging or tugging at them* in their evolution as professional educators who have a fundamental commitment to upgrading their pedagogy.

In the master's program at The University of New Mexico's Teacher Education Department, licensed teachers enjoy the privilege and responsibility of choosing a reflective practitioner research inquiry to pursue over two semesters; it is an authentic and professional capstone experience. What has repeatedly emerged from teacher practitioner narratives is an embedded sense of social justice. As "*reconceptualists*," teachers challenge the *status quo*, while recognizing bias, censorship, racial proclivities,

and colonialist attitudes (AERA, 2017). They problematize inequalities within the curricula they teach; detect disparities in educational systems and seek to influence policy makers who establish the rules governing our profession (AERA, 2016). During the research process, reflective teacher researchers embark on a Hero(ine)'s Journey. In the process, they are reiteratively transformed. Spiraling toward advanced levels of awareness, clarity and vulnerability, teacher researchers tell their research stories. According to Nikki Giovanni "If you want to share a vision or tell the truth, you pick up your pen and take your chances." The most common methodologies are case stories and autoethnographies.

Autoethnographies and case studies consistently emerge as methodological conduits for teachers to position their stories alongside student narratives in reflective teacher practitioner research. Sarah Bitah (2009) recognized the play of words in poetry as a way to engage her struggling readers in first grade. Julia Charles (2008) focused on storytelling and play to promote oral language development with her kindergarteners. Veteran teacher Rita McGrath (2013) chose autoethnography when she acted as a mentor for her daughter who was struggling as a first-year teacher while earning her teaching license. Rita recognized that stress coupled with a lack of experience may lead her daughter to give up teaching altogether. Yesica Romero (2017) intertwined her own experiences as a bilingual student with her Navajo high school students in her English class. Melissa Nakai (2017) confronted the challenges as a teacher making a call to social services in protecting one of her students.

Case studies also provided a storytelling approach. Debra Martinez (2008) articulated her school experience as a bilingual student when challenged with teaching a monolingual Spanish speaking kindergartener in her classroom. To meet their students' cultural and linguistic learning needs, Gladys Tracy (2006) and Judith Benally (2007) each wrote a case study about a Navajo student as a way of understanding student strengths in culturally situated contexts. Navajo language teacher Betty Williams (2012) pursued telling the story of a kindergartener learning Navajo language and culture and teaching his grandmother. Dana Murray (2014) sought to conduct home visits for all her second grade students in her classroom as a way of connecting with them better. High school Spanish language teacher Maritza Reyes (2015) documented teaching AP Spanish for the first time with her bilingual students. Christine Hubbell (2013) recognized the imbalance of culturally relevant reading materials in her classroom library for her students. Lydia Aranda (2012) explored the language acquisition through three-generations of a Spanish bilingual family. Misti Phelps (2010) advocated for one of her special needs language impaired students in securing a computer assisted technology device for him to communicate. Juanita Begay (2015) prepared materials and learning engagements for a student with Down Syndrome in her fifth grade classroom.

Teacher practitioner research is equitable to good teaching. In the current educational landscape, to practice what is professionally effective for students requires courage. Teacher practitioner research provides agency and voice in a time of professional stress, burnout, and oppression. Vicki Holmsten concisely sums it up:

”Here’s the bottom line—teacher-researchers are teachers with questions who are committed to the process of observing, collecting some sort of data, and then are willing to struggle with analysis of what they are seeing, even while they understand that there will never be *conclusions* or *answers* to their questions. Teacher-researchers, like all good storytellers, have a compelling need to share their stories in multiple conversations. The retelling and reworking of the conversations add layers of richness to the work and deepen our understanding of what happens in classrooms. In this world possessed by a mania for standardized test scores that actually mean very little, these stories are ongoing conversations that can keep us connected to what is really important in what we do in classrooms.” (Vicki Holmsten, personal communication, April 6, 2010)

**Keywords:** teacher practitioner research, social justice, action research, research art of storytelling

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# Empowering Communication Through Advanced Student Response Systems: Perspectives of Pre-service Mathematics Teachers.

Tharanga Wijetunge<sup>1</sup> and Dennis St. John<sup>2</sup>

Lyon College, USA  
<sup>1</sup>tharanga.wijetunge@lyon.edu

Central Michigan University, USA  
<sup>2</sup>dennis.st\_john@cmich.edu

## Abstract

Calculators were introduced in the mid-eighties and since then we have used them for more than quarter of a century in our mathematics classrooms. There were many studies conducted, especially to understand the effects of calculators on students' mathematical learning and understanding. Literature reviews in precollege and college levels suggested that calculators can provide more opportunities for students in solving mathematical problems and its use do not hinder their development of mathematical skills (Ellington, 2003; Reznichenko, 2007). Over time, technology of these calculators was enhanced and new features were added at a rapid rate. A review of the literature suggested that graphing calculators can positively affect students' mathematical learning (Adams, 1997; Herman, 2007; Lauten, Graham, & Ferrini-Mundy, 1994; Quaseda & Maxwell, 1994). Further development of technology, like Computer Algebra Systems (CAS), allowed calculators to perform more sophisticated mathematical tasks. The potential positive effect on mathematics learning and achievement of CAS devices has been reported (Heid, 1988; Hillel, Lee, Laborde, & Linchevski, 1992).

The new millennium is about the effective communication and connecting people through networks. Networked classrooms seem to be an upcoming technology in mathematics classrooms (Arnold, 2004). Student (or Classroom) Response Systems (SRS/CRS), like Clickers, is a tool that enables teacher and students to communicate in a networked classroom setting. There are two types of SRS, namely Selected SRS and Constructed SRS (Pelton & Pelton, 2006). The difference is SSRS only allow students to select an answer from a given list, whereas CSRS allow students to submit their own answers or select an answer from a list. Studies in different disciplines including Biology (Preszler, Dawe, Shuster, & Shuster, 2007), Astrophysics, Communication, and Physics (Trees & Jackson, 2007), and Engineering Mathematics (d'Inverno, Davis, & White, 2003) suggested that the use of SRS can enhance students' engagement and motivation in classroom activities. SRS can promote learning when the appropriate pedagogical methodologies were integrated to the classroom instructions (Fies, & Marshall, 2006; Roschelle, Penuel, & Abrahamson, 2004). The TI-Nspire CAS Navigator system allows students to connect their calculators to an instructor-monitored wireless network, which enables students to use their calculators as CSRS. This instructor-monitored environment can provide new learning and teaching experiences to both students and teachers.

This study investigates a specific population, pre-service teachers. Pre-service teachers can have different beliefs about teaching mathematics, their mathematical knowledge, and the use of educational technologies in their future classrooms. These beliefs can be based on their personal experiences as learners and a series of content and methods courses can gradually change or reshape their beliefs, especially their beliefs about teaching (Conner, Edenfield, Gleason, & Ersoz, 2011; Cooney, Shealy, & Arvold, 1998; Tennison, 2010). Several studies have shown that integration of educational technologies, specifically the use of multimedia and online discussions, can positively affect pre-service teachers' attitudes about using technology in their future mathematics classrooms (Goos, 2005; Li, 2005; Özgün-Koca, Meagher, & Edwards, 2010). This qualitative study was designed to understand the pre-service teachers' perspective of the use of the TI-Nspire CAS Navigator system. The research questions were designed to investigate how the students would describe the role of the TI-Nspire CAS Navigator system. By examining pre-service teachers' reactions and perspectives, we hope to gain a better understanding of students' learning in a mathematics classroom with an enhanced CSRS.

What is the potential of the TI-Nspire CAS Navigator system in terms of learning and teaching? How do these pre-service teachers react to the use of the system? Does the system positively influence our pre-service teachers' beliefs about the use of technology in their future classrooms? Findings to these questions will be discussed in detail.

**Keywords:** student response systems, communication, pre-service teachers

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# Examining Psychometrics for Student Teacher Evaluation Instruments

Matthew Munyon<sup>1</sup> and Shiva Jahani<sup>2</sup>

University of Central Florida, USA

<sup>1</sup>matthew.munyon@ucf.edu

<sup>2</sup>shiva.jahani@ucf.edu

## Abstract

In 2016-2017, the college faculty created two new instruments to evaluate student teachers in a live classroom setting: (a) an observation rating scale and (b) an evaluation instrument that provided formative and summative feedback. The dual purpose of the new instruments was to add rigor and to more closely align content and criteria to Florida Educator Accomplished Practices (FEAPs). Thus, the purpose of this study was to scientifically examine the validation, overall reliability, interrater reliability, and generalizability of the instruments.

A team of carefully selected teacher educators and statistical experts (the team) was formed to assess the instruments for various forms of construct and criterion validity. Four forms of validity were tested. Construct validity included both face validity and content validity. **Face validity** was satisfied with the team participants' expertise in education and statistics. The team systematically reviewed the content of each construct and its related criterion language. determined that both were detailed and satisfactorily covered the construct domains. Thus, **content validity** was satisfied. The team determined that **discriminant validity** existed by collecting and reviewing assessment tools and rubrics from various educational institutions. They determined that the new observation rating scale and evaluation instrument were unique and met the needs of the college's teacher candidates. The team established **concurrent validity** when they determined that the new instruments appropriately distinguished between different groups (i.e., students in Internship I, students in Internship II).

The college will pilot the new instruments in 52 schools (28 elementary, 24 secondary) in a three-county geographic area in the center of the State. Student teachers will plan and implement lesson plans in a live classroom setting. For each student, one supervising teacher and one internship coordinator will observe the lesson taught, and provide feedback using the new observation rating scale. At the mid-point of the semester, supervising teachers and internship coordinators will complete the evaluation instrument to provide student teachers with formative feedback. We will enter data from both instruments into SPSS and SAS, respectively. In SPSS, we will examine Cronbach's Alpha, which will inform us of the instruments' overall reliability. Based on the Cronbach's Alpha results, faculty will revise the instruments as necessary (e.g., deleting items to increase reliability). In SAS, using generalizability theory, we will examine the initial level of generalizability for both instruments. Finally, if the generalizability coefficient is .70 or higher, we will move to the next part of the study. If the coefficient is below .70, we will run a D4 decision-study to determine how many observations are needed to appropriately test for generalizability.

Following the revisions of the instruments (if necessary), student teachers will make a video record of themselves teaching a lesson plan in a live classroom setting. Following guidance from peer-reviewed literature, 12 raters will be randomly selected through proportionate sampling (50% supervising teachers, 50% internship coordinators). The reviewers will independently observe the recorded lesson plans, and evaluate the students' teaching using the two newly revised instruments. We will collect and input the data into SPSS and SAS, respectively. In SPSS, we will examine the level of interrater reliability for both instruments. In SAS, using generalizability theory, we will examine the generalizability of both instruments.

The study will be completed with data analyzed and the paper completed by April 15, 2017 in time for submission of final papers.

**Keywords:** teacher preparation, student teachers, evaluation instruments, psychometrics

# Coding Schemes Based on Cognitive Principles Are Best Practice

Florian Feucht

The University of Toledo, USA  
Florian.Feucht@UToledo.edu

## Abstract

Not much guidance is provided to researchers and students in the process of developing coding schemes to analyze data in the field of qualitative research. Method books focus on qualitative research methods and designs but rarely explain the concrete steps of developing coding schemes. This paper focuses on how cognitive principles can be used to develop valid, reliable, and objective categories and hierarchies that facilitate the coordination of theory and evidence in the process of scientific inquiry. Eight principles derived from cognitive learning theory in the field of educational psychology provide a foundation for the development and application of coding schemes in qualitative research: (1) Theory and evidence coordination (2) Hierarchical structure, (3) Organizing principles, (4)  $7 \pm 2$  items limitation, (5) Operationalization, (6) M-codes, (7) Grounding of evidence, and (8) Collaboration. The paper provides example coding schemes to illustrate the analysis process, its outcomes, and use of qualitative data analysis software, like Atlas.ti.

**Keywords:** Qualitative research, Coding schemes, Cognitive principles

# The Opinions of Pre-service Teachers on Measurement and Evaluation Applications at University

Neşe Güler<sup>1</sup>, Gülşen Taşdelen Teker<sup>2</sup> and Gülden Kaya Uyanık<sup>3</sup>

Sakarya University, Turkey

<sup>1</sup>gnguler@gmail.com

<sup>2</sup>gulsentasdelen@gmail.com

<sup>3</sup>guldenk@sakarya.edu.tr

## Abstract

The best practical examples of what is theoretically taught in measurement and evaluation courses are the measurement and evaluation activities performed by instructors teaching in educational faculties of universities. Pre-service teachers begin to adopt a critical perspective of the measurement and evaluation activities performed by instructors teaching them especially after they have taken courses on measurement and evaluation. In this way, they can analyse instructors' strengths and weaknesses in this sense better. Thus, they have first-hand experience of what it might lead to if what is learnt in theory and recommended to be applied is not put into practice. There are a number of important points that pre-service teachers in the future when they become teachers and instructors currently should take into consideration while giving examinations to their students. For instance, prior to a test, an explanation about test content should be offered, and the test should contain a balanced distribution of questions about the whole content explained. These points highlighted are about the content validity of a test. Content validity, which is a type of validity, is the degree to which a test contains the behaviours it intends to measure (Baykul, 2000). It is expected that the behaviours intended to be measured should be measured in a balanced way (Güler, 2011). Validity, which is a property of the meaningfulness of test scores and not a property of the test actually (Messick, 1995; Sireci, 2009; Kane, 2009), is classically defined as "a test's measurement of only the variable that is intended to be measured and the requirement that the variable should not be mixed up with other variables" (Thorndike, 1971). According to the criteria set on the basis of the literature, data on measurement and evaluation activities were collected from pre-service teachers who were attending different departments of educational faculties and who had taken measurement and evaluation course. Besides, students' recommendations for the improvement of measurement and evaluation activities as well as their criticism were also included in this study.

Research data were collected from 302 pre-service teachers attending the Educational Faculty of Sakarya University in the fall semester of 2015-16 academic year and willing to answer the questionnaire on measurement and evaluation activities they were exposed to. The data used in the study were collected through the questionnaire developed by the researchers. The questionnaire was composed of two sections- one which was about demographic information on pre-service teachers and the other which was about their views of measurement and evaluation activities they encountered during university education. Prospective teachers' views on measurement and evaluation activities used in courses were analysed through frequency analysis.

Findings obtained in this study demonstrated that the measurement instrument that pre-service teachers encountered the most frequently were multiple-choice tests and written examinations. While almost half of the pre-service teachers completing the questionnaire stated in relation to the reliability and validity of measurement and evaluation activities that mostly test content was explained to them beforehand, questions about the whole of pre-explained content were available, the pre-announced content was distributed in the test in a balanced way, the questions had been expressed in brief and clear sentences and that they were allowed enough time; more than half said that exam questions had been expressed clearly and in a comprehensible way most of the time; and 30% said that mostly the limit on the number of pages to be used was told them and that occasionally questions out of the content were also available in exams.

Approximately half of the pre-service teachers responding to the items in relation to the number of questions in their examinations in general during their university education chose to say “never” for the item “there is one question in general” whereas more than half said “most of the time” for the item “there are six or more questions in exams”.

An examination of the pre-service teachers’ responses in relation to their views concerning the presentations they had made in the classroom showed that how their presentations were marked were “mostly” explained to them; that rubric for marking was “never” shared with them, that “mostly” instructors on their own marked the presentations and that instructors and peers “never” marked together; and that self-assessment was “never” available in marking. In relation to the item “I believe that marking is objective”, 30% said “often” while 29% said “mostly”.

In relation to pre-service teachers’ views about the period following exams during their university education, the majority of them said “occasionally” for the items “exam results are announced in a week at the latest”, “exam results are announced in two weeks or later” and “the key to the exam questions is given in class after exams”. For the item “students are allowed to see their exam papers with no condition after exam results are announced”, 31% of the participants said occasionally while 36% said never for the item “we are allowed to see our exam papers but on the condition that we will be more strictly marked”.

An examination of the participants’ responses about the factors during exam administration showed that the majority of the responders said that those administering the exams were “mostly” understanding and polite, that they “occasionally” displayed behaviours distracting attention, that they “mostly” made the necessary explanations about the exams (such as time allowed to answer the test questions, the number of questions, general rules about exams, etc.), that they “rarely” helped students answer the questions, that they “always” permitted students to use all the time to answer the questions, that they “mostly” made the necessary intervention when something disturbing the exam atmosphere happened, that “mostly” the instructor teaching the course was also available in the exam room, and that cheating was “never” allowed in exams. In addition to all these, the pre-service teachers also rated the measurement

and evaluation activities they had encountered during their university education in general between 1 and 5, and accordingly 75% of the 302 participants were observed to assign 2 and 3 points to the activities.

In the light of the findings it might be recommended that studies be performed to make measurement and evaluation methods and techniques other than multiple-choice and written test widespread in educational faculties, and that rubrics be prepared to mark presentations - an in-class activity- more objectively and in more transparency. Studies could also be conducted in order to include peer evaluation and self-evaluation in marking. Instructors could be offered training at certain intervals so that all measurement and evaluation activities could be conducted in more reliable and valid ways, and similar questionnaires could be repeated with pre-service teachers. Additionally, it might also be suggested that similar studies be conducted with data to be collected from a larger number of pre-service teachers, and deeper information be collected through qualitative data for prospective studies.

**Keywords:** pre-service teachers, measurement and evaluation, measurement tools and methods

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# Creativity and Innovation: The New Strengths Demanded by XXI Century Schools

María José Fernández-Maqueira<sup>1</sup>, Francisco Javier Blanco-Encomienda<sup>2</sup> and María José Latorre-Medina<sup>3</sup>

Faculty of Education, Economics and Technology  
University of Granada, Spain

<sup>1</sup>tula@correo.ugr.es

<sup>2</sup>jble@ugr.es

<sup>3</sup>mjlator@ugr.es

## Abstract

We live in a changing era, in which man had never lived so closely with knowledge. Thus, it seems paradoxical that in the first decades of the twenty-first century students do not feel the passion for learning, the passion that has moved the world through history and turned the human being into something unique and unrepeatable. The incorporation of creativity and educational innovation in the classroom by a renewed teacher results in an increased motivation by students and, in most cases, the improvement of their academic performance. In this line, it is essential to work advisedly, analyzing and internalizing the attitudes that teachers should have in order to achieve a substantial change in mentality and philosophy of work.

**Keywords:** innovation, formation, creativity, change, teacher

## Introduction

There is an amount of circumstances that cause among teachers a discomfort that often translates into passivity which derives in turn, in a worsening of the baseline. Schools, management teams and teachers in general do not understand how their personal or collective contribution, under certain situations, can improve the educational situation when, on a global and on a policy and legislative framework level, they feel abandoned and, in the worst, harassed. In this situation, the quality of education feeds its problems and finds no new outlets or air to breathe. We must admit that in recent years are constant apparent efforts by education authorities to improve the situation of educational quality and academic performance as well. Several plans to improve the quality of teaching or incident plans in education have landed in schools with a palliative function and have been implemented with more skepticism than faith and more reluctance than illusion. These well-intentioned reforms have not led to the expected changes and they have been contaminated with the endemic disease that affects the state of education. It seems that the solution is not in these improvement plans and educators receive them with reluctance. We have a system based on memorization and standardization, an educational system poorly designed, outdated, variable and ideological. A system that is unable to keep students and teachers excited about their own learning and educational work. This system needs to be changed. However, teachers must not go on passive, waiting for the global situation be changed from upper headquarters.

We can say that there are two types of teachers: traditional and innovative. They belong to the first group those teachers who respect the guidelines that make the management teams without questioning their validity or relevance, they define themselves as specialists in a given area, they give priority to the seniority in the center or the specific charges before the professional curriculum, assume the authority of educational administration without trusting or believing in it, work alone and feel comfortable if the innovators do not alter their bubble of stability. They are immobile and comfortable with a daily work under control, they do not check their performance nor feel comfortable with self-assessment. Innovators, conversely, are open to change, they do not fear conflict because they operate comfortably in it, they are cooperative, they do not consider seniority or the position in the center are a value, they are in continuous process of formation, they are critical with the decisions of managers and management teams and seek for recognition of their work because they feel that it is part of the change they crave. There is also a factor that differentiates them above the rest; the first group of teachers has limited beliefs on students, while the second group has high expectations for its students.

### **Learning the Lesson**

Teachers must flip the switch and react against the established mediocrity. Our commitment is to introduce innovation and creativity in the learning-teaching process. The classroom should be the first level of action to start viewing the improvement, the classroom as a place of innovation whose results will be, unavoidably, to transform the centers, from which other measures will be managed to support actions that occur in the classroom. Fullan and Langworthy (2014), two of the most interesting educational experts of the time, invite teachers to develop a new pedagogy based on creativity and innovation to face the new challenges schools have. Only this way, we will see a huge acceleration in the improvement of academic outcomes, instead of the frustrating decrease in the results of the last decades. New teachers that change need to realize that expository methods, must give way to interactive methods in which the teachers encourage student's autonomy in the acquisition of knowledge, through research, debate and confrontation of opinions. As Tribó (2008) says, *'The teacher must learn to mediate between information and knowledge'* (p. 194). It is going over emitter teacher to the teacher learning facilitating teacher. But it is not easy, the dominant factor is still nowadays the transmission of information from teacher to student.

In the OECD report (2012) about the education of the XXI century, a huge emphasis is placed on the importance of preparing students on issues such as creativity, critical thinking, problem solving, collaboration, social responsibility, etc. It is these skills that the near future citizen must consider to get on successfully in the changing world he lives. The results of external tests that our students pass and whose results are reflected in the PISA reports, leave in a desolate level European and American student due to the poor academic results obtained by them. These results should be a cause for reflection of all teachers. Low PISA results are explained because teachers do not teach to use what students have learnt in everyday life situations, this mean that we continue teaching for passing exams but not to act as informed and thoughtful citizens. Teachers are poorly trained, there are excellent teachers but they are committed to their self-

taught capacity. Internationally, Fullan (1998) became one of the first voices claiming that an emphasis on improving the quality of teachers had to be put particularly with regard to the collective ability to build better learning. The OECD report (2012) points out that low school results are due, among other things, to a teaching profession that does not offer a high quality. The Eurydice report (2013) evaluates the quality of teachers, and advocates a highly-qualified level access to the teaching profession and provides the opportunity to begin to attract the best students to careers devoted to the education.

Nowadays teachers are not responding to a school that belongs to the future. Stoll and Fink (1999) expressed this need for years and daring to say that our schools would be good if we were in 1960. That is why one of the areas of knowledge in which we should print our efforts as educators is to understand and manage the process of educational change, school improvement and innovation. To remedy this situation, there is a need for a change in applicable methodologies in the process of teaching and learning, from expository to participatory methods, from the masterful lesson to dialogue, from passivity to action. It can be said that innovation and improvement are the aspects that are available to the action of teachers and that is precisely where we should focus our formation and efforts to contribute to change. Both innovation and improvement require a change of attitude and mentality, and an enormous capacity to face the conflict and problems. The professional we require should be open to discussion and dialogue, resistant to discouragement and knowledgeable about what change means.

For a real change, teachers must have a new vision of the educational world, believe in the necessity and form for the process. The schools demand the need for change, a new professional culture in which the teacher sees himself as part of a professional group where skills such as teamwork, coordination and joint programming are the main axes of their activity. Teachers need to realize that expository methods must give way to interactive methods in which the teachers encourage student's autonomy in the acquisition of knowledge, through research, debate and confrontation of opinions. The teacher must learn to mediate between information and knowledge. But it is not easy, the dominant factor is still nowadays the transmission of information from teacher to student. To provoke change we advocate innovation and creativity as the right tool. However, can teachers be innovative despite the culture of change does not appear in the center?

### **Innovation Against Isolation**

Indeed, creativity and innovation in the classroom may open a gap themselves even if there is not a culture of change in the center, not the desired situation but it does have an impact on the classroom space. Teachers who are innovative are committed to finding a new school culture that can influence part of the cloister, through the observation of results, curiosity or the spontaneous formation to other colleagues from these pioneers. This is not to say, however, that we can focus the change of a school on the isolated innovative practices. Paredes and De la Herrán (2009) claim that the change does not occur in isolation as it affects both the macro structure and micro structure and to focus on the individual innovative capacity does not normally produce

results in practice as it can occur that innovations disappear when those people leave the institutions or when that individual effort is reduced or canceled when disappearing protection situations to innovation.

When speaking about the change needed and demanded by new schools, we must focus on one of the huge problems which affect the whole system. The individualism that affects not only the teachers' behavior in the teaching learning process but also, and more important, the whole educative system and results. There is a lack of a collaborative spirit among teachers which choke the educational quality. We remain excessively individualistic in our daily work. Often efforts to promote and encourage cooperatives take place, but they are overly linked to personal efforts of a group of teachers who understand that collective work and participation are still pending, and this happens if there is no management team to boost the centers in the sense of participation and discussion as basic tools to get the real change needed for excellence in educational quality.

We can still define many schools as a sum of watertight compartments: classrooms, departments, management teams, cloisters, management and educational community. The fact that these organs and action spaces maintain a good relationship between them and can boast of a horizontal outline and not hierarchical and vertical, does not make out of its operation the ideal situation. These elements must ally and integrate. In schools, individualized work remains the imposed mode. We can blame the schools organization but it cannot be obviate the existence of those educators who are used to working in isolation and can find it difficult to share ideas or have their practices questioned. Isolation must not be a side effect of being a teacher. In most of schools, it is very easy to get in the trap of entering the class, shut the door and attend the group of students feeling yourself as the only responsible of their education and improvement. The way schools are organized benefit this way of acting; teachers working together but sharing nothing. San Fabián (2006) attributes this taste for individualism to the *cell-way* organization of school spaces. Currently, a collaborative culture involves trusting relationships between teachers, mutual support and shared learning. Schools are still dominated by the unshared isolated performances, collaborative work is not regarded as widespread as it should be. The faculty is too installed in the dynamics of 'tell me and I do'. Although, if we reflect carefully, what came first the chicken or the egg?

It might be thought that teachers are immobile because the centers do not spread in a participatory work or, on the contrary, participatory life of the schools is an impossible challenge because of the individualistic character of teachers. However, effective teachers want collaboration, need collaboration. Teachers must begin to learn each other and from each other in order to become stronger, more effective and more qualified. This academic interaction will result not only productive for teachers but also for students. There are many researchers who have argued that collaboration may improve the teaching and learning process. In a very interesting research, Hausman and Goldring (2001) investigated whether there is an empirical link between teacher collaboration for school improvement and student achievement. According to these authors, teachers are central to any change in schools. Besides, it has been widely

proven that the more teachers collaborate in their daily educational activities, the more they are able to converse knowledgably about theories, methods and processes of teaching and learning, and thus improve their instruction.

### **A Good Evaluation Against Control**

Another of the great evils which, from our own perspective, teachers have anchored on the road to improvement is the absence of a culture of assessment. The external assessment is still considered a form of control of teaching practice that teachers and management teams are reluctant. What at first it appeared to be a release for the system has turned against us and left us, in many cases, unable to critical judgment, becoming one of the big negatives centers. In the words of Martín (2010), no one doubts that the quality of teachers is one of the essential factors in education, but the professional development also demands counting on the procedures for assessing the task that is performed in order to improve it. However, educational systems still suffer from the dynamism that these processes pose to the quality of education, as revealed TALIS OECD report (2009). The faculty continues to show resistance to be evaluated. In a recent survey of teachers of Elementary and Secondary Education it was shown that only one in three teachers agreed to carry out an assessment of the results of the teaching impact on working conditions.

The problem of rejection experienced in our schools to the assessment of teaching practice is an enormous lack of information and teacher formation in this regard. What kind of assessment should we expose to? Who is the ideal agent for that assessment? Is that assessment translated into information, or bureaucratic requirement? Assessment for improvement or mere control? There are many questions that we, as teachers, do before a task we are not prepared to do, and therefore willing. Ignorance causes reluctance. It is time to rethink not only a new culture of self-evaluation but also reclaim quality evaluation.

The solution is to introduce in schools, from within, a philosophy of evaluation, which stresses the benefits that bring this necessary educational action and minimizes the drawbacks and fears. The assessment should start to be considered, not as a threat, but as a generator of exercise changes. It is somewhat ironic that a profession that constantly and regularly evaluates as part of its power, is so reluctant, and in the best case, suspicious to be evaluated. The evaluation is necessarily an inherent work to teaching and a factor of relevance to the educational reality and to achieve improvement. As pointed out by Bolívar (2013), any possible external evaluation will have little effect if it does not cause, at the same time, internal evaluation processes leading to make things better.

There are many challenges before us in improving our schools, evaluation is one of them. Without a weighted evaluation exercise cannot be a judicious reflection on teaching practice, rejecting the evaluation we reject the self-critical assessment and the ability to adapt to changes. It is absolutely necessary a reeducation in this aspect.

## Conclusion

The teacher is the most influential element in educational practice. The ideal is to have an inclusive approach to innovation, in which teachers, administrators and counselors work in a coordinated way to facilitate innovation and change in our schools, but while this solution comes the teacher must promote and rely on these creative practices. Following Fullan (1998), the future of educational change depends on the evolution from innovation to institutional development. We need to become the roots of a new transformation in education, prompted by real changes in methods, curriculums, technology and social demand for better learning. Teachers must restructure themselves and do it surely and hopefully. Taking the initiative, they will be leading the way to more and more educators, creating a transmissible flow which will motivate them to rethink their relationship with students, colleagues, and the whole community.

Marina (2001) summarizes the features of the new teacher as a professional that sees education as an ethical project; expert in education, in collaboration, trained for action; for diversity and problem solving; who takes a more active role, not to mention that among the attitudes that allow learning are those that have to do with humility and responsibility.

At this time in which it has been widely exposed the need of new teacher's role and profile, it would be a great self-reflection exercise to remember the lessons that Fullan (1993) bequeathed us in his prescient book '*Change Forces*' about the difficulties a transformer process implies and to remind ourselves that we are far from dispensing prescriptions for what is right and what is not, the wise and unwise. Changing schools is changing society and vice versa, that is an expensive magisterial formula and that we apply ourselves.

Lesson 1: the important thing cannot be imposed by command, the more complex the change is the less it can be forced. Lesson 2: change is a journey, not a model, change is not linear, is full of uncertainties and passions and sometimes becomes perverse. Lesson 3: problems are our friends, problems are inevitable and one cannot learn without them. Lesson 4: vision and strategic planning come later, premature visions and plans blind. Lesson 5: there must be a balance between individualism and collectivism. There are no one-dimensional solutions to individualism nor to groupthink. Lesson 6: neither centralization nor decentralization work alone, both top-down strategies as bottom-up are needed. Lesson 7: a wide connection with the environment is fundamental. The best organizations learn both from the inside and outside. Lesson 8: each person is an agent of change, change is too important to leave to the experts (pp. 21-22).

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# Transition Dynamics of a Mass Deportation

James Feigenbaum

Department of Economics and Finance  
Utah State University, USA  
j.feigen@aggiemail.usu.edu

## Abstract

In discussions about immigration, the possibility of deporting the whole population of illegal immigrants is often bandied about. Most economists, and probably most people, intuit that this would be a bad idea, but rigorous arguments are difficult to find. Here we construct a simple three-period overlapping-generations model with high- and low-educated workers. Both types are ex ante identical. Upgrading education from low to high is costly in resources, time, and utility. Illegal immigrants are assumed to be subsumed within the class of low-educated workers. We study the transition dynamics following the deportation of a large fraction of low-educated workers. In the long run, the economy returns to the original intrinsic equilibrium, albeit with a smaller population and GDP. The elasticity of low-educated wages with respect to the supply of low-educated labor is the output share of expenditures on capital and high-educated labor divided by the elasticity of substitution between low-educated labor and capital/high-educated labor expenditures. If low-educated labor is a substitute for capital and high-educated labor, this will be less than one and often much less than one, so a deportation of low-educated labor has a negligible effect on low-educated wages and the welfare of low-educated households. High-educated households see a reduction in income. Whether the deportation has widespread effects on the economy depends on patience. If the population of young who initially planned to get high education resist the temptation to drop out of school, only the initial cohort of high-educated workers will be hurt by the deportation since their wages will go down. If a sufficiently large number of this group do leave school, the resulting output loss next period will lead the economy to alternate between good and bad periods.

**Keywords:** deportation, illegal immigration, general equilibrium, overlapping-generations model, occupational choice, sunspots, poverty trap

# Failing at Freedom and Happiness

Paul Gathercoal

College of Education  
University of Idaho, USA  
gatherco@uidaho.edu

## Abstract

Historically, politicians have endeavored to control constituents' hearts and minds through our system of public education. They have fashioned rules and approved curricula primarily to teach citizens reading, listening, and arithmetic. As a result, citizens have learned to obey and recite. Creativity, problem-solving, and critical thinking are discouraged. This is a threat to the preservation of freedom and happiness. Our system of public education needs revitalizing. Parents and educators need to, 1) embrace a cognitive, child-centered philosophy for parenting and education; 2) Learn, teach, and use the "language of civility" embedded in the Constitution of the United States of America; and 3) Teach about, with, and through the media and their messages, and their effects on individuals and society. These three incipient modifications to the current state of our system of public education will empower wise, responsible citizens; providing a roadmap to the preservation of freedom and happiness.

**Keywords:** citizenship, critical thinking, public education

When politicians promise constituents they will kill and obliterate an ideology, or resolve immigration problems with extreme vetting and a wall, or that everyone will have affordable health care; we should immediately question and challenge these sweeping promises. And yet, most people are unable to develop salient arguments questioning such thinking. They simply do not possess the knowledge or civil language needed to intelligently debate these topics. If people do not know how to think critically about ideas surrounding freedom, justice and equality, they can easily be conscripted into naive "group thinking." Additionally, demonstrated by the number of people who have great confidence in an administration's ability to deliver on these sweeping promises, it can be argued that many people are easily persuaded. Critical thinking cannot thrive in the minds of dumb mutes who live in fear of the unknown. Obedience is simple for them. They do not have to think or feel. They only have to believe and recite. So it goes, the success of our politicians is proof of the failure of our system of public education.

In 1786, Thomas Jefferson flagged the critical need to educate Americans when he wrote, "No other sure foundation can be devised for the preservation of freedom and happiness." Yet, America's system of public education has been ineffective in preparing citizens, who self-govern, live, learn, and take responsibility for preserving our liberties. A free society is founded on an informed, knowledgeable, and wise citizenry and over time our system of public education has failed its' primary mission.

Since legislating compulsory education laws, politicians at all levels of government, have tried to control the American system of public education by instituting rules and curricula that generally produce good, obedient, citizens who believe stimulus/response theory works in all matters. Good, obedient educators, who believe behaviorism is the best way to manage students in public schools, have been complicit while implementing government rules and approved curricula. Finally, politicians and educators have been supported by parents and caregivers who lovingly enforce autocratic rules and consequences they believe will control their children's behavior. As a result, every one of us must take responsibility for the current state of the American system of public education, and for the multiple occasions when the President of the United States has been elected by a majority of electoral votes; not the popular vote. Together, we have developed a system of public education that systematically endeavors to control citizens in a free society; and in due course it is failing to preserve freedom and happiness.

Our system of public education may be distressed and fragmented and its' revival lies not with our children and politicians, but with those who teach our children. Parents and educators need to transform public education. We can begin with three major changes:

One, embrace a cognitive, child-centered philosophy for parenting and education; giving up doing things **to** children, and only do things **with** and **for** them, thereby establishing a fiduciary relationship with every child;

Two, learn, teach, and use the "language of civility" that is embedded in the Constitution of the United States of America, and use it every day at home and in schools, all the while emphasizing speaking and writing; and

Three, teach about, with, and through the media and their messages, and inform children about the effects the media and their messages can have on individuals and society.

When parents and educators develop a child-centered philosophy as a rationale for decision-making, and when only cognitive strategies are employed, children begin to sense an increased level of trust and confidence in their own capabilities. A cognitive, child-centered philosophy grounds parents' and educators' self-consciousness in thoughts connected to trust and care; they gain a propensity for action that is a sustaining force behind a positive educational and mentoring relationship with children. A respectful, trusting relationship with children is fundamental to resolving the most difficult problems associated with our deteriorating system of public education.

The only way parents and educators can advance a cognitive, child-centered philosophy is to learn the language of civility and use it daily to establish self-governing families and schools. If the goal of public education is to raise children who are capable of living responsibly in a free society—a society that holds high the constitutional principles of freedom, justice, and equality—parents and educators must employ mentoring practices that teach, model and pass along to children many personal qualities that are valued in a free society, such as accountability, self-efficacy, tolerance,

cooperation, and mutual respect. Learning and using the language of civility is vital to becoming a wise, responsible citizen.

Culture is grounded in language and communication. Parents and educators must ensure everyone learns and routinely employs the principles embedded in the language of civility, and that everyone understands how these principles are expressed responsibly in a free society. These are civil values; they involve respect for human rights that are balanced on a scale of justice with respect for the rights and interests of the rest of society. The language of civility is based on principles embedded in the Constitution of the United States of America; and according to case law, every public school in the United States of America has a responsibility to respect and protect the individual rights of every child. In order for children to become wise, responsible citizens in a free society, they must be given responsibility. What greater gift than to give them responsibility for exercising their human rights in school and at home?

Finally, parents and educators have a responsibility to provide children with the skills and understandings to be responsible makers and consumers of media messages. Children who participate in a process-oriented media studies program learn to utilize new and more powerful ways of communicating by employing text, visual, and audio techniques to construct their own media messages. They learn the value of using “close-up” visuals to highlight emotion and important information, and the use of suitable music and sound effects to create mood. They learn how constructing media messages takes thoughtful preparation and more time planning and preparing than it takes to record the text, visuals, and sound. They learn that video messages are composed of sequences of shots that are usually scripted and then recorded, shot by shot, over and over, until the shots are near perfect as planned; and, that all video “news” reports are manufactured in a similar fashion. News reports are deliberate and man-made. All these lessons in media studies should be taught using a methodology that acknowledges and values every child’s culture and individuality; and, practices the theory that people learn best when they are actively involved in the process of investigation.

Media studies programs teach critical thinking. They purposely utilize language arts: reading, writing, speaking, and listening; and the emphasis is on writing and speaking that resonates with a specific target audience. Media studies programs intelligently discuss important issues, and reflect on values inherent in a particular body of knowledge; they recognize the social, moral and ethical implications of that knowledge, and its’ intellectual, emotional, and relational commitments to stakeholders’ interests. Children who engage in media studies programs learn to think critically about, with, and through the media and their messages, in a twenty-first century context.

There is a choice. We can continue teaching children how to be good, obedient citizens. Or, we can give children their human rights and teach them how to exercise their rights as wise, responsible citizens. Which would Thomas Jefferson choose as a roadmap for the preservation of freedom and happiness?

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# The Glass Half Full? An Opportunity Under Trump's Administration to Review the Perennial Aims of Western Education

Susan Barber

Faculty of Education  
Simon Fraser University, Canada  
Susan\_Barber@sfu.ca

## Abstract

This paper examines the earliest and most enduring goals of Western education, and argues for their continuation in the current US administration's proposed policies. As a US citizen living in Canada, the author brings a dual perspective to the philosophical values that were identified in antiquity and have since served as a compass throughout the ages. Discussion centers on values as related to the education that today's teachers feel students need for the society that they will inhabit. In light of 21<sup>st</sup> century issues, relevant contributions of Socrates, Plato and Aristotle, possibly education's most renowned pairings of teachers and students, are explored.

**Keywords:** philosophy of education, values, perennial aims of education, Plato, Aristotle

## Introduction

The author is an American citizen who has worked and lived in Canada for two decades. The advantage of being an exile, an outsider, in that state of "in between", is to acquire, comfortably or uncomfortably, a sharper perspective on events. In Canada there is a tendency to observe the US closely, having an immense border and an influence in mainly one direction that requires Canadians to remain fastidious about maintaining their distinct identity. Canada has its own challenges, and only history will tell which methods succeed best in handling issues common to both countries. Undeniably, both countries are inextricably linked – by history, geography, economics, culture and especially by similar educational ideals and their sources, although with points of divergence – but both can learn from one another.

It is through this lens that the author would like to compare the genesis of Western education in ancient Greece, with the important dichotomy handed down through the centuries from Plato/Socrates and Aristotle that together form the ideas and values on which North America builds its educational systems. It may not be an exaggeration to say that in the US, education is one of the crucial pressure points due to a tug-of-war between 21<sup>st</sup> century multiculturalism and the settled descendents of European immigrants, or more simply, liberals and conservatives. Furthermore, there are sublevels and subgroups within, mainly those conservatives who, previous to large numbers of non-white immigrants entering the country or jobs moving to Asia, had access to earning a decent living without pursuing higher education but who now find themselves struggling. It is for this subclass of individuals that Donald Trump wants to "make American great again". In Canada, 80% of immigrants are granted permanent residency for "economic reasons" (Welcome Canada, 2016), meaning they have agreed

to import a large amount of money to invest in the local economy. Undeniably connected to this prosperity is that 34% of these economic immigrants already have a university Bachelor's degree or higher and of those, 50% have STEM degrees, which is greater than the Canadian population at 26% (Statistics Canada, 2011).

Currently, in the city of Vancouver, British Columbia, Canada, 40% of the population is foreign born, and yet there is very little ill will directed at immigrants in terms of their right to enter the country and, with their education and personal wealth, perhaps more easily find employment. There are schools in Surrey, BC that have an 80% Muslim student population, and most every school in the Greater Vancouver area is highly multicultural. (BC Ministry of Education, 2016). Schools are not without their conflicts, but the question that arises from some outsiders' perspectives is: how does this system work so well? How is harmony achieved? This brings us back to the roots of education.

### **Some Context: Ancient Greece**

In antiquity, literacy was scarce, writing systems crude and available only to court scribes. The oldest existing artifact of writing is a clay tablet etched with cuneiform wedges from Ancient Sumer in Mesopotamia, or today's Iraq, dated approximately from 3200 B.C. (*Archaeology*, 2016). It preserves for the ages not some hard won knowledge intended to spare future generations from repeating devastating mistakes or honor the best among the venerated, but, in fact, to issue a receipt for grain paid to the ruler as tax. So much for the romantic view of the dawn of civilization. By the time of Homer in early Greece (approx. 800 BC), however, the vehicle for education was storytelling, conveyed by the itinerant poets who disseminated knowledge throughout the countryside as a means of forging cultural unity, establishing religious ritual and common identity. Poetry encrypted communication through rhyme, musical beat and dramatic telling, embedding information in the minds of the listeners. Repetition and interpretation among competing poets served to reinforce the public's collective memory until literacy spread around the Mediterranean centuries later. Interestingly, it is this "threat" of the dominance of fiction to shape the hearts and minds of youth that initiated the rise of rationality, and with it, a whole basis for Western thought and education.

Western philosophy begins before the time of Socrates (470-399 BC), but he has always been seen as its ideal and hero. In his unyielding quest for truth, his prowess in argument, and willingness to die for his beliefs, Socrates's motives were not fame and fortune, but a need to save his soul. This may seem quaint by today's sensibilities, but Socrates also had political motives: he was against democracy as a form of government, but even more opposed to men who could not rule (Solomon & Higgins, 1996).

Socrates himself never wrote anything, but Plato, Socrates's most famous student, attempted to record his most compelling ideas. According to Plato, Socrates, whose only crime was to provoke people in order to make them think, was charged with not believing in the gods, and corrupting the youth of Athens, obviously, on trumped up charges. He was put on trial and his jury consisted of some people he had humiliated.

In Plato's *Apology* we hear how Socrates respects the law and is willing to be punished by it, because what is the law for but to uphold the values of the people? Socrates is sentenced to death, but he refuses to allow his friends to help him escape, what the jury expects him, like other convicted felons, to do. Instead, Socrates insists that he will die a virtuous man, and he is doing his soul good in accepting his punishment, he believes that much in the importance of the system.

The point for Socrates, in his debates, in his attacks on politicians, and in his death was to force others to search for the answers themselves. Questions such as, What is virtue? What is justice? What is knowledge? may be unanswerable, but it is still important for people to think about, argue through, and possibly die for.

Plato (423-347 BC), a student of Socrates, in his time was keenly aware of the competing ideas that emanated from religions, cultures, politics and philosophies in the rich civilizations around the Mediterranean. He also seized upon truth as a necessity to direct people away from superstition, violence, corruption and ignorance (Havelock, 1963). To this end he wrote *The Republic* (1987), a description of the ideal state that included his concept of the proper education of youth. He believed ideals such as absolute truth, a perfect democracy or complete goodness were not possible, but as a "form" they could exist in the mind of the individual and act as a guide, or a goal to strive toward, which would keep people on the right track.

While Plato put his faith in ideals to lead society, his student, Aristotle (384-322 BC) urged philosophers to train their minds upon reality. He saw qualities on a continuum from weak to strong, where people should aim for a Golden Mean in the middle, so as to maintain balance (*Nicomachean Ethics*, 2002). Aristotle also saw the value in stories as reflecting reality, and the plays especially allowed people to experience dangerous emotions in a controlled environment, surrounded by others having the same experience. At the climax, the "truth" of the story could be cathartic for the audience, and much could be learned from it that could be applied to life. Plato disagreed that emotions could do anything but cloud our rationale minds and prevent us from recognizing flawed characters. Aristotle believed that when examined in hindsight, emotions reveal a truth about experience that is more reliable than rational thinking.

Although Socrates/Plato and Aristotle overlapped on some concepts, they also disagreed on points which continue to be discussed and evaluated. Their legacy has come down to us through the ages, interpreted through the events of history, politics, religions, and new philosophies, and now into modernity, changed significantly, but surprisingly with core ideas resistant to change or dismissal. For this reason they are labeled "perennial" ideas in Western thought. In education, few teachers would want to follow Plato's recommendations to the letter, yet in broad strokes, there is much of Plato still organically a part of contemporary educational ideas. For example, Plato supported education for everyone, and the opportunity for social mobility based on ability. In his works, Plato recognizes the sovereignty of the Good, the quality that supersedes and encompasses all the other virtues which is deeply a part of the human experience today for those who have internalized moral values (Murdoch, 1970).

In the next sections, four aims of education that still hold true, and may even be more important than ever, will be examined.

### **Socrates, Truth and Good Citizenship**

What we know of Socrates's ideas come to us from Plato's early writings. Plato carefully recorded some of Socrates's most famous debates where Socrates often drilled down through questioning, or the Socratic method, to reveal a person's ignorance, or lead them to a point where they could apprehend the correct idea themselves. Socrates believed people are inherently prejudiced and accept ideas they encounter out in society without questioning them. His educational goals were to get students to dispute what they heard, especially ideas that are widely accepted. In *The Apology* (Plato, 28E), Socrates sees it as his duty to act like a "gadfly on a horse's back", biting, agitating, and otherwise annoying others in society (Nussbaum, 1997) to get at the truth.

Today we see powerful examples of ignorance in society, and social media and technology have become foremost in promulgating disinformation. "Crowd sourcing" is not a way of confirming the truth; in fact, one of the worst logical fallacies is the "ad populum" strategy in argument where the speaker cites the truth of an idea based on its having the most support. In other words, if everybody believes it, it must be true. When students are not explicitly taught media literacy, they are in grave danger of believing what they hear. If students do not learn to think for themselves, or at least question what they encounter and evaluate sources of information, they are vulnerable to inaccurate ideas, propaganda and manipulation. And worse, they may not know it because everyone else seems to be lulled into a sense of certainty through consensus.

Socrates can do much for us today in returning students to a love of learning, and the wisdom acquired through doing the hard work and figuring things out for themselves. Too often educators fail to model a love of learning themselves, and communicate to their students the deep pleasure of becoming more educated.

### **Socrates and Self Respect**

Socrates offers a model on the value of education related to the virtues, or developing good character. He gives compelling reasons to be good, and not just when others are watching. He claims it is more important that we do it for ourselves, for our self-respect, because then we can be proud of ourselves, and discover being good is important for intrinsic reasons.

In our students' lives, they may grasp the idea that there is often another system at work in society: it's wise to follow good behavior when it works to increase reputation and social capital, but it's also okay to allow oneself to behave badly, as long as no one gets caught. Socrates would say adhering to this maxim will do damage to the self, if not before getting caught, then certainly after.

In some careers, some people may find it difficult to uphold Socrates's values if they are embedded in a work culture that rewards corruption and greed due to the necessity of

competition and “winning”, such as on Wall Street or in sports leagues. Just as problematic are environments where people in their high status see themselves as above the law or beyond certain social contracts. There are frequent examples in the news where people in public life are “recusing” themselves from testimony, or when interviewed by journalists, deflect questions, put a spin on facts or create new scandals to distract the public from the real issues.

### **Plato and Upholding Ideals That Bring Us Closer to Perfection**

In the *Republic*, Plato takes great pains to present his ideal curriculum, opening the educational institution to all {male} children who follow a set plan for their development. His recommendation is that pupils take a variety of courses, beginning with poetry and music, learn to read around age 15, undertake military training, and then their teachers who had marked their progress and inclinations would determine where their place in society lay. Some may choose to drop out as being unsuited to study and instead train for a job. Possibly most remarkable for the time, in Plato’s state, there is mobility based on an individual’s ability; given the talent and energy, any student can continue on to “higher education” and possibly to the apex, that of “philosopher king”, the man most supremely suited to rule.

With Aristotle, the school was meant to mirror real life, only in a better sense. Justice could be upheld and teachers were there to answer any questions that arose at the proper time. When moral conflict emerged, the teacher was not only able to explain proper behavior, but also model that behavior in the teaching of morality.

Because in ancient Greece the great teachers who were also philosophers were highly respected as “sages”, finding one’s place in Plato’s Academy or Aristotle’s Lyceum was greatly sought after. The possession of knowledge and achievement of understanding was the highest goal. For students of both Plato and Aristotle, the promise of knowledge that derived from an ordered mind and a categorization of objects and events in life held great value. Plato called it in the Allegory of the Cave, “emerging from the cave of darkness or ignorance, and coming out into the sunlight or “the Good” (*Republic*, XII6). Aristotle called it “flourishing”, living the reflective life, in harmony with all other aspects of life. People ought to have enough money to live without worry, but acquiring material goods were not a worthy goal.

With Plato, the ideal ruler was one who had been chosen from the most excellent of those who had become philosopher kings. Admired by all for extensive knowledge, advanced ethics, physical superiority and balanced temperament, these students were best suited for making the right decisions for the citizens of the republic.

Today, teachers themselves need to accept, whether they like it or not, that they are role models for their students. As professionals, teachers are held to a higher set of ethics than what students might normally encounter in the public realm, and it is the teacher’s ethical standards that give them the power and the right to actively shape young minds. It may be a heavy responsibility at times for the teacher to think about moderating and monitoring their own behavior, but for many students, it can be a

turning point in their young lives to have direction when their home environments offer no moral guidelines. Often they turn to the school to provide the “normalizing” they need in order to begin to think for themselves and take responsibility for their actions. This will also allow students to partake in the moral collective consciousness that society seems to have lost because of a fear of imposing one’s views on someone from another culture or religion. However, a quick survey of the values promoted in major religions and cultures reveals an exceptional uniformity, including key prohibitions, like “do not kill”, “do not steal”, and the like. Often people confuse rituals such as “do not eat meat on Friday” with universal moral imperatives.

In Canada, where a diverse population lives, works and cooperates smoothly, tolerance and acceptance is the norm, and the emphasis is on similarities, not differences. Universal moral values are promoted, most strongly in schools. This is an important component in teacher education, and the government and the rest of society embrace it.

Here Aristotle’s Golden Mean can teach us about balance and moderation in our behavior and in our society. And also to resist when we see a lack of moral education or balance in others.

### **Plato, Politics and Entertainment**

Often it is challenging to explain one of the more perplexing opinions held by Plato, and that is his rejection of the arts, in particular, the poetry and drama of his time. Plato was not only concerned about the emotional reaction people had that clouded their minds, but also that in the telling of the story, they often identified with flawed characters. Havelock (1968) explains that once a society begins to spend more and more of its leisure time on entertainment, the quality and moral values of that society begin to decline. Plato predicts how excessive amounts of entertainment can impact a person’s potential, if a counter-balance, such as a critique of that entertainment, does not take place. Certainly in contemporary society the sources of entertainment are endless. The amount of television youth consume and the quality of the behavior and messages they receive about relationships is questionable at best. If parents are not discussing the content, especially if it is morally ambiguous or disturbing, students are at risk of learning about life from flawed sources.

Granted Plato has been accused of being a puritan and not having the sophistication or sense of humor to back off from philosophy to appreciate the lighter side of the arts (Murdoch, 1970). Yet teachers might agree that their students’ addictions to all kinds of entertainment from their various devices is interfering with their intellectual and social development.

By extension, in society today, in people young and old who do not have the education or awareness to realize the seriousness of what is at stake in government, there is a blurred line between entertainment and politics. In Socrates’s time, the Sophists had great sway over the population and their ability to win public opinion was more based on oratory skills than content and character. This may have been Socrates’s motivating factor in developing his philosophy. Democracy works much in the same way; the most

popular candidate may appeal to the public through showmanship and bombast and garner the majority's vote. A public that is not familiar with the issues, cannot see through the rhetoric, and cannot evaluate the character and values of a politician is in grave danger of losing what they hold most dear. The world can only hold its breath, and hope for the system as a whole to function as it should, and eventually time will move it forward to a better political era. At least, that's the ideal.

## Conclusion

The roots of Western education go back at least 2500 years and have survived revolution and radical influences without losing sight of the fundamental values at its heart. Ask any adult who has completed a high school education what it is to be educated, and you will learn the key aims of education: to be a good citizen, find a job, acquire skills and knowledge so as to participate in subject areas, and last, to understand what it means to be human. The dueling yet complementary voices from antiquity have provided a unique approach in Western education, one that is still strongly with us today, namely: idealism vs. realism; fact vs. value; truth vs. meaning; art vs. science; and the state vs. the individual. The result of these options is that as educators, we are always given two or more perspectives on things which enable us to see complexity. There is no "one size fits all"; rather, there are best practices to hold up to individual cases.

At the time of writing this paper, the author can only speculate what changes may come in education under the Trump administration and a Secretary of Education who proposes to implement a charter school model. Educators know that socio-economic factors impact schools and the students who attend them. Struggling students are able to accomplish more in mixed ability schools, rather than through staying ensconced in low achieving environments. Education is the beating heart of a nation, and the care and investment put into creating excellent schools must be based on the best that we know, sourced in universal human values, and forged through the educational philosophies that have been passed down to us.

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# The Debate Between Nationalism and Global Justice Behind Trump's Executive Order on Immigration

Pang Yonghong<sup>1</sup> and Yang Jie<sup>2</sup>

College of Public Administration  
University of Chongqing ,China  
<sup>1</sup>Pangyh18@163.com

School of foreign languages and cultures  
University of Chongqing ,China  
<sup>2</sup>1583186776@qq.com,

## **Abstract:**

As reported on 27 January 2017, an “executive order signed by new President Donald Trump suspends the entire US refugee admissions system, already one of the most rigorous in the world, for 120 days. It also suspends the Syrian refugee program indefinitely, and bans entry to the US to people from seven majority-Muslim countries – Iran, Iraq, Libya, Somalia, Sudan, Syria and Yemen – for 90 days.” Trump said his goal was to improve background checks to make sure terrorists are not admitted inadvertently.

The order has provoked strong repercussions and extensive discussion in the United States and the international community; some support this order, and some strongly oppose. The present author believes that, from the perspective of political philosophy, the debate on the order actually arises from disagreement over the contrasting value ideals of nationalism and global justice. So this paper will start from the theory of justice by political philosophy professor David Miller of Oxford University and discuss global justice in response to practical problems in the world today. The paper treats the following three aspects:

## **Basic concepts of nationalism and global justice**

As an ideology and a way of thinking about the world, nationalism explicitly declares that “national characteristics” is the dominant factor in the division of mankind, and that any person should belong to one nation and can only belong to one, which is the main focus of identity and loyalty. Nationalism is divided into “civic nationalism” and “ethnic nationalism”. By contrast, the ultimate unit of cosmopolitan concern is the person or individual rather than family, tribe, race community, nation or state. This view claims that the status of each person as the ultimate care unit is equal and this principle is applicable on a global scale.

## **Criticism of global justice theory by nationalism represented by David Miller**

The nationalists criticize the theory of global justice on three points: the theory of global justice undermines national self-determination, national responsibility and national identity.

## **David Miller's response to international political problems**

This section will discuss issues including immigration, territorial rights and responsibility for the poor in the world.

### **Analysis and conclusion**

The author believes that global justice is in a better position intellectually compared to nationalism theory. Nationalism in fact depends on global justice to delineate proper moral limits, and the special obligations advocated by nationalists are subject to the constraints of general obligations (e.g. harm no nation). Therefore, when one takes sides with the members of his own nation against other nations, he should note whether there is damage to the members of other nations. The author does not mean to argue that nationalism should be considered in the context of full practice of global justice or that the author belittles nationalism. In fact, nationalism has intrinsic value and has made many contributions to the progress and development of human society. Therefore, nationalism should be dialectically unified with global justice.

**Keywords:** Trump's Order Nationalism Global Justice

### **The basic concepts of nationalism and global justice**

In analyzing the debate between nationalism and global justice, we need to begin by clarifying nationalism and global justice. Nationalism emphasizes the importance of the nation in the interpretation of historical development and contemporary politics, and declares that "national identity" is the dominant factor of division of human beings. Generally speaking, nationalism holds that all people should belong to one and only one nation, which is the main manifestation of people's identity and loyalty. That is to say, one should regard himself as a member of a nation no matter which other group he belongs to.

As an influential ideology, nationalism has various types according to type analysis, which is very important and divides nationalism into "civic nationalism" and "ethnic nationalism". Civic nationalism builds on the sense of identity of and belongs to the people who share the same civic system and common aspirations. Civic nationalism holds that a nation is open, and anyone that acknowledges the mechanism of citizenship may voluntarily join. But ethnic nationalism "emphasizes it is history and even genetic inheritance that decide community self-determination, which has a sense of belonging in culture and origin". Civic nationalism, which is open and emphasizes the importance of the citizenship mechanism, holds that certain constitutional principles may inspire people. On the contrary, ethnic nationalism, which is closed, holds that ethnicity, religion, culture or language which often have a close relationship with a person's birthplace and are impossible to change, may inspire people. Historically, nationalism can be peaceful and beneficial, but it can be also aggressive and destructive.

Since World War II, nationalism has absorbed some elements of liberalism, and formed a very influential nationalism based on the principles of liberalism, that is, "liberal nationalism" urged by Miller and others, which is my focus in this paper.

The theory of global justice is also a complex theory, on which different schools of thought do research in different perspectives and paths. There are analyses based on utilitarian global justice urged by Peter Singer, on the contractual doctrine of global justice urged by Charles R. Beitz, and on human rights of global justice urged by Henry Shuey and Thomas Berg. Berg's theory of global justice takes the perspective of cosmopolitanism, and he proposed that "firstly, the ultimate concern of individualism is the individual, rather than the family, tribe, ethnic group, cultural or religious community, nation or country. ... Secondly, universality: everyone as the ultimate concern unit is equal. ... Thirdly, generality: given that everyone as the ultimate concern unit is equal, this view is applicable on a global scale." <sup>i</sup>This exposition of cosmopolitanism, which has gained universal acceptance, can roughly sum up the basic concepts of contemporary cosmopolitanism, that is, individualism, universality and generality. In Berg's theory of global justice, human rights are divided into "the interactional understanding of human rights" and "the institutional understanding of human rights", and it points out that the government and individuals have the obligation to establish a system to ensure the human rights of all members in a society.

### **Criticism of global justice theory by the form of nationalism represented by David Miller**

David Miller, University of Oxford professor, holding to liberal nationalism, criticizes the theory of global justice and expounds his view on the justice of nationalism.

His main points are as follows:

#### **a) The theory of global justice weakens national self-determination.**

National self-determination, one of the important principles of nationalism, holds that all ethnic groups have the right and freedom to determine their own political, economic and cultural systems. Generally, national self-determination mainly includes "national self-determination at the national level" and "national self-determination at the international level". Here, it is "national self-determination at the national level" that will be discussed. Miller's theory of nationalism, based on the principle of national self-determination, criticizes Berg's global distributive justice theory.

Berg advocates that global poverty should be solved by the global resource aid distribution scheme at present, and a country's possession of natural resources, which are morally arbitrary factors, should be regulated by global justice. By contrast, Miller believes that every nation has the following five obligations: (1) "restrain damage to another country's obligations materially", (2) "do not exploit an obligation of a country which is unilaterally affected by your behavior", (3) "abide by international agreements", (4) discharge "mutual obligations" and (5) "ensure the equitable distribution of natural resources, an obligation hard to comply with".<sup>ii</sup> Miller believes that the first four obligations have gained wide acceptance, but there is a big dispute over the fifth one, which will face two difficulties in implementation: "One is the absence of a common metric by which resources of different kinds can be valued. Second, resources are not simply there for the taking: they need to be discovered, extracted, and made serviceable for human use, all at some cost."<sup>iii</sup>

Obviously, Miller does not recognize global resource equality. And furthermore, he opposes global egalitarianism in which, under international justice, the nation has embodied self-determination by the principles of non-interference and the obligation of assistance. The global theory of distributive justice including the global rule of difference, which is advocated by Baez, is not a necessity, because "in order to maintain equality, we have to divert resources from the relatively wealthy countries to relatively poor countries constantly, which destroys political responsibility and self-determination"<sup>iv</sup>

According to Miller, the global egalitarian program including redistribution of resources and the global difference principle, which is advocated by those who hold global distributive justice, violates national self-determination and national responsibility which will be discussed here. Global equality is neither necessary nor feasible to solve the problems of global poverty, and in fact the humanitarian aid obligation is enough.

### **b) Global justice theory undermines national responsibility**

Miller believes that global justice undermines national responsibility and all peoples should be responsible for policies in areas such as economic development or the use of resources.

Miller opposes global egalitarianism. He argues that Borg's theory of global justice, in noting the roots of global poverty, has mistakenly understood them, and simply decides that citizens of rich countries should have responsibility for the situation of the world's poor people.

Miller believes that the factors which affect a country's economic development are generally the following three: physical factors (such as natural resources, geographical location), domestic factors (such as political culture and political system) and external factors (such as the international order). Miller stresses that unless it is proved that foreign factors have played a significant role in explaining why certain societies became wealthy and other societies became poor, the claim that the nation-state has direct responsibility for its affluence and poverty is well-grounded.

Regarding the above three factors, Miller stresses the importance of domestic factors on a country's economic development, pointing out that "Other economic historians, however, have produced more solid evidence to support the significance of domestic factors in explaining differential rates of development. Geography matters to some extent—nearly all developed economies are to be found in temperate rather than tropical zones—but examples such as Singapore and Mauritius show that geographical disadvantage can be overcome by societies with the appropriate cultures and institutions."<sup>v</sup>

Obviously, Miller holds to a "purely domestic" origin for poverty, and disagrees with Berger's view, which points to the impact of the unequal international political and economic order on the poor countries. He holds that poor countries cannot simply blame the international order and the rich countries which maintain the order. He points out that when considering what to blame for the poor of the world, a variety of factors

should be considered, otherwise it is difficult to clarify exactly who is responsible for the consequences and who should remedy them. So, Miller stresses the importance of protecting the basic rights of all people in the world, while he also believes that a country should take responsibility for its own economic development policies, and that assistance obligations toward the poor should firstly be borne by the poor country and its national community.

According to Miller, it is unfair if, prior to the reasons of the poverty of a country being identified, it is claimed that rich countries and their citizens are responsible for its remedy, and that consequently some poor countries may not take responsibility for what they should, and pass on this responsibility to other countries and their citizens.

### **c) Global justice weakens national identity**

National identity usually refers to an individual who regards himself as a member of a national community, as well as has a sense of belonging, for example, a person stresses he is "a Chinese" or "an American".

An individual can understand who he is in the world through identifying with a nation. National identity includes varieties, of which "national culture" and "national obligation" are the two important ones. On the issue of national obligation, the proponents of global justice hold a neutral attitude towards the individual's cultural identity, and advocate a culture which can transcend national culture. Where there is a conflict of interests between the in-group members and strangers, supporters of global justice adopt a fair approach: that the members of the same nation can't be treated differently and an equal principle should be adopted .

Miller criticizes and questions this approach. Miller believes that the national community is a community existing voluntarily, "Because our forebears have toiled and spilt their blood to build and defend the nation, we who are born into it inherit an obligation to continue their work, which we discharge partly towards our contemporaries and partly towards our descendants. The historical community stretches forward into the future too. This then means that, if we are going to speak of the nation as an ethical community, we are talking not merely about community of the kind that exists between a group of contemporaries who practise mutual aid among themselves, and that would dissolve at the point at which such practice ceased; but about a community that, because it stretches back and forward across the generations, is not one that the present generation can renounce."<sup>vi</sup>When the needs of members conflict with the needs of strangers, the needs of the members should be taken care of first, and one should have more obligations to members than to strangers.

### **Miller's response to the reality of international politics**

In Miller's view, conflict between immigration and territorial rights, and the responsibility for the poor are prominent issues in the international community.

Let's look first at the issue of immigration and territorial rights. At present, the immigration issue is very prominent. Miller points out that supporters of global justice

usually regard immigration as a basic right for three reasons: firstly, migration is a universal right without restriction; secondly, international laws usually admit the right that one may give up his nationality, and consequently, one has a right to move to another country, otherwise it would be meaningless to be able to give up one's nationality; thirdly, people may freely form an association, which should not be constrained by borders of countries. Therefore, in a country which pursues liberalism, the right to immigration is permitted and protected by laws.

But Miller does not agree with these arguments. He holds that it is wrong that an immigration right is integrated into a "basic needs" list, "therefore, one cannot justify an unconditional right to immigrate on the basis of the (genuine) human rights of the would-be migrant, whether freedom of movement, freedom of association, or the right to exit."<sup>vii</sup> On the one hand, it is the responsibility of a nation to provide a decent life for its citizens. At present, most nations are not so poor that they can't protect the basic human rights of their citizens; on the other hand, in regard to national community, immigrants will bring about various influences on the country's free system, and the owner nation has the right to prevent or limit outsiders.

In short, Miller believes that the immigration right is not a right which is only related to an individual. Territorial rights of a sovereign state have priority over a general immigration right in the order of values.

Miller believes that territorial rights are under the ownership and jurisdiction of a specific nation, so members of a nation state, based on the values they hold, have the right to decide whether or not people can access its territory, and even permanently settle here. Similarly to Rock's property right theory, Miller holds that a nation state which has settled in a place permanently has established economic and cultural values which are the foundation for the nation to develop, and only by controlling its territory the nation may better protect its human rights and economic and cultural achievements. "In other words, it cannot, ethically speaking, defend its boundaries and do nothing else in a world where human rights are in many places insecure."<sup>viii</sup>

It should be based on protecting self-determination: "So if the state is going to turn them away, or pursue a selective admission policy, it must be able to offer a justification for doing so."<sup>ix</sup> And thus we must link "immigration policy to the general goals of the society in question. These goals will reflect existing national values and will ideally be set through a continuing process of democratic debate."<sup>x</sup>

Let's look second at the issue of responsibility for the poor.

Miller believes that aiding poor people is a responsibility which is upheld by global justice. Reasonably limiting immigration obviously cannot justify evading responsibility for aiding refugees, and in fact people living in rich countries always have certain obligations for the poor in the world. On the question of aid responsibility, Miller agrees with Peter Singer and Berg, but he also points out that there are some deficiencies in the definition of the aid responsibility.

Singer does not discuss responsibility for global poverty in detail, so it isn't clear whether poor countries or rich countries should take responsibility for the poor countries. So when encountering poor people, each individual should take remedial responsibility as long as it won't sacrifice any important value.

In contrast, Berg points out that poverty is obviously a product of the global system. People living in developed countries have a collective responsibility for this system. They have the corresponding remedial responsibility when they hold resources which can be used to eliminate global poverty. But this view makes two mistakes. On the one hand, it is not reasonable to blame poverty on the existing international order, just as it would be unreasonable to blame traffic accidents on road engineers who have not set up traffic lights at an intersection but not on the drivers. Furthermore, it is far-fetched that the people of rich countries should take the collective responsibility for assistance, while neglecting that the people of poor countries have a certain collective responsibility for the damage caused by the adverse systems and policies of their countries.

Therefore, according to the principle of global justice, it should be discussed how the citizens of rich countries take up their responsibilities appropriately.

Firstly, when victims fall into continuing poverty because of injustice historically, the offender has responsibility of remedy due to the obligation of justice.

Secondly, because it is the international community's failure to implement international cooperation that leads to poverty, it is justified for poor countries to appeal to an international order that can adequately protect them from harm.

Thirdly, if the poor countries are in poverty simply due to local causes, we need to judge the responsibility which their peoples should take.

There are three possibilities: no one is responsible, partial responsibility, and complete responsibility. All in all, "those who benefit from living in rich territorial states have responsibilities to the world's poor, and discharging these responsibilities may sometimes involve taking needy migrants in."<sup>xi</sup>

### **My Comments and Conclusions**

The nationalism theory does not promote the rational compatibility of national self-determination and global justice, so that we can recognize the moral values of national self-determination, and protect the voice of nationalism in the global justice arena. But on the other hand, I think that compared with the theory of nationalism, global justice is in a superior position. Nationalism needs global justice to designate appropriate moral boundaries. The special duty which is advocated by nationalists should be subject to the general obligation (such as not hurting other nations). When caring about the members of our own nation we should pay attention to whether members of other nations are hurt. Of course, this means neither that nationalism can be considered only in the context of the practice of global justice, nor that I belittle nationalism.

In fact, nationalism has its intrinsic value, and it has made a great contribution to the progress and development of human society. Nationalism and global justice should be unified.

Firstly, the premise of nationalism accords with the current international political outlook, but its promoters need to reflect on whether nationality truly has moral priority over other values .

Secondly, the concept of national responsibility is conducive to mitigating obvious injustices at the present stage, but can not guarantee global justice in a multi-level political structure. We need to ensure that the process of globalization continues to grow, that the people of the world are interrelating and interacting with each other, and that every country is, as a matter of course, involved in the process of economic integration.

We must determine the various responsibilities in the field of cooperation beyond the national level. Responsibility should be taken by all involved countries, and liability and risk should be imposed on every country. Also, any individual citizen should not limit his responsibility within the nation, but he needs to take responsibility for maintaining global justice too. Of course, any responsibility should be allocated by a democratic and fair political decision-making process.

Thirdly, the maintenance of territorial rights and sovereignty and reasonable restrictions on immigration are conducive to the protection of national self-determination, but they are not the proper way to achieve global justice.

In discussing whether freedom of migration belongs to an individual's basic rights and the limits of such a right, Miller points out that unconditional migration is obviously not a fundamental right, because of the impact of the economic, political, cultural, social opportunities and social welfare on the receiving country, which means that implementing immigration freedom, which is a negative freedom for immigrants themselves, will make receiving countries pay the corresponding positive cost (according to integrity of national responsibility). And the cost will undermine the value of self-determination. Therefore, Miller believes that global justice should allow nation-states to restrict refugee immigrants based on their sovereignty and territorial rights. A set of perfect systems or policies of restrictions should be implemented, and the nation states should have the power of self-determination to decide on immigration applications.

Miller's claim guarantees the value of national self-determination. At present, it is undoubtedly an strong ethical argument for constraining immigration. However, I think this is not the proper way to achieve global justice.

Firstly, regarding rich countries which may use the defense of sovereignty and territorial rights as an excuse to reject immigrants and refuse to take responsibility for aiding refugees, Miller's claim encourages their unjust behaviors.

Secondly, regarding poor countries which may use protecting national self-determination as an excuse to prevent citizens from leaving, Miller's view obviously discourages their active participation in regional and world economic cooperation, which could gradually improve their domestic living standards.

In the end, absolute sovereignty and the mutual exclusion of the nation-state have seriously restricted the development of economic globalization, which results in global justice losing its strength as the fundamental driving force of the economy.

In a word, Miller, as a liberal nationalist, overemphasizes the value of national self-determination, and tries to protect the priority of national self-determination in the form of national responsibility.

Recently, American President Donald Trump issued a series of orders regarding immigration, and proposed to build a wall at the border between the United States and Mexico, which aroused great disputes. In a press conference with German Chancellor Angela Merkel, he said "Immigration is a privilege, not a right, and the safety of our citizens must always come first," but Merkel emphasized that something needs "to be done while looking at the refugees as well, giving them opportunities to shape their own lives . . . [and] help countries who right now are not able to do so, sometimes because they have civil war." The different statements concerning the immigration issue when Trump met Merkel could be seen as exemplifying the clash between nationalism and global justice

## References

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<sup>iii</sup> *ibid*

<sup>iv</sup> David Miller, "Against Global Egalitarianism," *The Journal of Ethics*, Vol. 9, No. ½, 2005

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<sup>viii</sup> *ibid*

<sup>ix</sup> *ibid*

<sup>x</sup> *ibid*

<sup>xi</sup> *ibid*