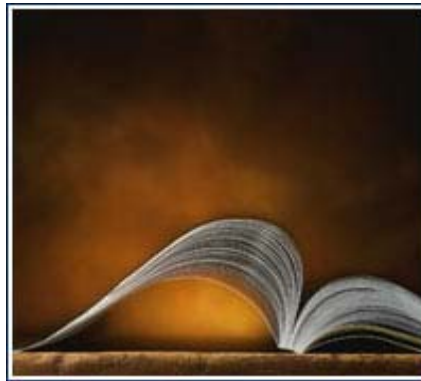


The Ninth Annual College of Education and  
Graduate Student Network  
Research Conference  
Saturday, April 10, 2010



*The Cornerstones of the College of Education:  
Honoring Inquiry, Promoting Mentoring, and Fostering  
Scholarship*

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The purpose of the Florida International University Annual College of Education and Graduate Student Network Research Conference (COERC) is to enhance the existing research culture. The conference provides a meaningful vehicle for the preparation, mentorship, and presentation of scholarly work by students, faculty, and alumni.

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# COERC 2010

Proceedings of  
The Ninth Annual College of Education and  
Graduate Student Network  
Research Conference

April 10, 2010  
Florida International University  
Miami, Florida USA

**Proceedings of  
The Ninth Annual College of Education and Graduate Student Network  
Research Conference**

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## Acknowledgements

The FIU College of Education and Graduate Student Network Research Conference Steering Committee would like to thank the College of Education faculty and students for supporting the ninth annual COE research conference. Special thanks must go to the Office of Research and Grants for their sponsorship under the guidance of Associate Dean Patty Barbetta, for the invaluable work of program assistants Maria Tester and Marilyn Vinson. We would never have solved many logistical problems without the support of Maria. We are grateful to Interim Dean Marie McDemmond for sponsoring the keynote speaker Dr. Belle Whelan. Juliann Lacey and Adriana McEachern continued the campaign to secure sponsors. They secured about \$500 dollars in donations to sponsor lunch, breakfast, tables, and gifts for our raffle.

The Graduate Student Network (GSN) has assisted the conference for several years by volunteering at the registration table, putting together packets, and other odd jobs. For the fourth year, there will be an award for the best student paper sponsored by the Graduate Student Network. This is the second year of our full partnership with GSN. In addition to volunteering to assist with registration, set up, and assorted committees, GSN is sponsoring breakfast. This organizations support was crucial in securing the rooms in the Graham Center.

Teresa Lucas and Maria Plakhotnik facilitated the review process. This includes locating faculty to review, prompting reviewers to return reviews, and doing additional reviews when needed. Teresa has been invaluable in securing monitors and remembering things I have forgotten. Special thanks must go to Adriana McEachern and Sarah M. Nielsen who have worked on behalf of this conference since its inception in 2000-2001 and the first conference in 2002. Adriana continues to support the conference by chairing the sponsorship committee, the awards committees, and helping with logistics. Maria S. "Masha" Plakhotnik has stepped up and volunteered to assist with the review and selection committee, program planning, marketing, proceedings editing, and putting together the CD rom. Masha organizes and records all submissions, sees that papers are tracked during the review process, and monitors accepted papers and authors responses to reviewers' comments. Masha, Teresa, and Adriana are the core of the steering committee; their dedicated service has contributed much to the professional conference we put on each year.

Masha, Sarah and Debbie edit every paper in the proceedings. They work with authors to address grammar, formatting, APA, and sentence structure. Their work contributes to the high quality of the papers published each year in the proceedings.

Without the continuing support of so many, this conference would not exist, so thank you again for making our ninth annual conference so successful.

From all of us on the COE-GSN 2010 Research Conference Steering Committee

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An **anonymous local donor** also made a significant donation on behalf of the FIU College of Education. A special thanks to the individual who made this contribution.

## **Keynote Speaker**

**Belle S. Wheelan, Ph.D.**

**The Role of Colleges of Education in their Communities:  
What should the Relationship be between Colleges of Education and the  
Surrounding Community?  
What does it Mean to be Engaged with the Community?**

Dr. Wheelan currently serves as President of the Commission on Colleges of the Southern Association of Colleges and Schools and is the first African American and the first woman to serve in this capacity. Her career spans 35 years and includes the roles of faculty member, chief student services officer, campus provost, college president, and Secretary of Education. In several of those roles she was the first African American and/or woman to serve in those capacities.

Dr. Wheelan received her Bachelor's degree from Trinity University in Texas (1972) with a double major in Psychology and Sociology; her Master's from Louisiana State University (1974) in Developmental Educational Psychology; and her Doctorate from the University of Texas at Austin (1984) in Educational Administration with a special concentration in community college leadership.

She has received numerous awards and recognition including four honorary degrees; the Distinguished Graduate Award from Trinity University (2002), and from the College of Education at the University of Texas at Austin (1992); *Washingtonian Magazine's* 100 Most Powerful Women in Washington, DC (2001); and the AAUW Woman of Distinction Award (2002).

She holds and has held membership in numerous local, state and national organizations including Rotary International; Alpha Kappa Alpha Sorority, Inc.; the American College Testing, Inc., board of directors; American Association of Community Colleges' board of directors; the Lumina Foundation for Education, board of directors; and the President's Round Table of the National Council on Black American Affairs.

## **Lunch Panel Discussion**

**Mark B. Rosenberg**

President, Florida International University

### **Community Engagement: The Role of Colleges of Education within the University in Terms of Community Engagement, and the Connections between Community Activities and Research**

Mark B. Rosenberg is the fifth president of Florida International University, one of the 25 largest universities in the nation. A political scientist specializing in Latin America, Dr. Rosenberg is the first FIU faculty member to ascend to the university's presidency; he has more than 30 years of higher education experience.

From 2005 to 2008, Dr. Rosenberg served as chancellor for the Board of Governors of the State University System of Florida. The SUS enrolls more than 300,000 students, employs 10,000 faculty and operates an \$8 billion budget. As chancellor, Dr. Rosenberg led the system's strategic development, financial planning and policy initiatives, working closely with Gov. Charlie Crist and Legislature to secure support for SUS priorities. Prior to becoming chancellor, Dr. Rosenberg was integrally involved in the expansion and development of FIU into a major public research university. As provost and executive vice president for academic affairs from 1998 to 2005, Dr. Rosenberg spearheaded the establishment of a law school in 2002 and a medical school in 2006. Under his leadership, FIU increased enrollment to 37,000 students, implemented major campus construction projects and was invited to join the select national honor society Phi Beta Kappa. Dr. Rosenberg was also instrumental in moving FIU into the top tier of Carnegie Foundation research universities.

Dr. Rosenberg's academic career began at FIU in 1976 as an assistant professor of political science. In 1979, he founded the FIU Latin American and Caribbean Center, which today is one of the nation's premier federally supported research and teaching centers focusing on the region. Dr. Rosenberg subsequently served as the founding dean of the College of Urban and Public Affairs and vice provost for international studies.

Dr. Rosenberg earned a B.A. in 1971 from Miami University of Ohio and a Ph.D. in political science with a graduate certificate in Latin American and Caribbean Studies from the University of Pittsburgh in 1976. He has written or co-edited seven books and numerous scholarly articles in leading journals. His latest book, *The United States and Central America: Geopolitical Realities and Regional Fragility* (2007), is a Harvard University project co-authored with Luis Guillermo Solis of Costa Rica. Governmental and media organizations have frequently sought Dr. Rosenberg's expertise on Latin America. He is a member of the Council on Foreign Relations, has testified before Congress numerous times and has served as a consultant to the Department of State and the U.S. Agency for International Development.

## The Lorraine R. Gay Award for Excellence in Research and Scholarship

The purpose of the award is to acknowledge, in the name of L. R. Gay, outstanding research scholarship on the part of students and their supporting faculty in the College of Education of FIU.

L. R. (Lorrie) Gay, the founding professor of educational research for the FIU College of Education, was dedicated to students, to the rigorous pursuit of educational excellence and to research scholarship. She chaired the first doctoral dissertation awarded in the College of Education. She published textbooks in educational research, tests and measurement, and educational psychology. They were published as L.R. rather than Lorrie because the publisher felt a female author would not be as accepted as a male, so initials were used. The educational research text became the best-selling book of its kind and her publisher estimates that 1 out of every 2 students in the field has used this text.

The recipients of this award walk in the shadow of someone who cared for every student, and fought to make our course in educational research the best of its kind because she knew this was the way to best serve students. If you have taken the course you know what it requires and as you realize the skills you have attained through her efforts, you appreciate her efforts to this day, years after her passing.

It is anticipated that one award will be presented annually to the student whose research best exemplifies Lorrie's high standards. In the case of multiple authors for the same paper, multiple awards will be bestowed.

The awards are determined based upon papers submitted for presentation at the College of Education and Graduate Student Network Annual Research Conference. Award decisions are determined by the judgment of the faculty members serving as the L. R. Gay Award Sub-Committee. Members of this sub-committee are to be selected by the entire Steering Committee. The current members of the L. R. Gay Award sub-committee are Adriana G. McEachern (Chair), Roger Gonzalez, Joyce Harth, Sarah M. Nielsen, Maria S. Plakhotnik, and Debra M. Pane.

### L. R. Gay Award Recipients

- 2009 Debra Mayes Pane, *Reducing the Discipline Gap Among African American Students: Learning in Classroom Communities of Practice*
- 2008 Antonio Delgado, *Speaking Up: A Phenomenological Study of Student Perceptions of Being Silenced in their Higher Education Classrooms*
- 2008 Tekla Nicholas and LéTania Severe, *School Segregation, Educational Disparities, and Impacts on Haitian Youth in South Florida*
- 2007 Liana Casbarro and Jemlys Jäger, *The Mistranslation of the ABCs: An American AIDS Education Campaign in Botswana*
- 2006 Suzanne J. Gallagher, *A Phenomenological Study of Learning Processes at Work; Confirming, Extending, and Challenging Holistic Learning Theory*
- 2005 Victoria A. Giordano, *A Professional Development Model to Promote Internet Integration into P-12 Teaching Practices*
- 2004 Kandell Malocsay, *The Effects of Cultural Distance on Student Socialization and Departure Decisions*
- 2003 Sarah M. Nielsen, *High Stakes and No Takers: The Impact of Florida Comprehensive Assessment Test (FCAT) Writing on Students' and Teachers' Perceptions of Writing*
- 2002 Lorraine Wasserman, *The Effects of a Family-based Educational Intervention on the Prevention of Lead Poisoning in Children*

## **The College of Education Graduate Student Network Award**

The College of Education Graduate Student Network (COE-GSN) was started by Debra Pane and Claudia Grigorescu in 2005 to unite graduate students and find ways to enhance the graduate student experience. During the last four years, GSN has held several fundraisers to support graduate student COE Research Conference (COERC) attendance, donate funds for those in need (e.g., Tsunami disaster relief), and provide a monetary award for best student presentation at the 2007 COERC and best student paper at the 2008 COERC. GSN hosts workshops throughout the semester, invites guest speakers to its general meetings, and supports the needs of fellow graduate students through activities such as the GSN Dissertation Writing Group. As a student-run organization, GSN hopes to continue the spirit of academia by fostering, supporting, and altogether creating a graduate student culture.

This year, GSN is giving an award for the Best Student Conference Paper 2010. Under the guidance of the GSN president, Whitney Moores-Abdool, the GSN team conducted a blind review of all the student manuscripts and selected the winner based on research and writing guidelines developed by the GSN executive board and its members.

## **Barnes & Noble Best Faculty-Student Paper Award**

The purpose of the award is to acknowledge, in the name of *Barnes and Noble*, outstanding scholarship on a paper written by a faculty-student(s) team and presented at the College of Education and Graduate Student Network Annual Research Conference.

It is anticipated that one award will be presented annually to a faculty-student team. In the case of multiple authors for the same paper, multiple awards will be bestowed.

The awards are determined based upon papers submitted for presentation at the College of Education and Graduate Student Network Annual Research Conference. Award decisions are determined by a panel of faculty and students serving as the Barnes & Noble Award Sub-Committee. Members of this sub-committee are to be selected by the entire Steering Committee. The current members of the Barnes & Noble Award sub-committee are Adriana G. McEachern (Chair), Gail Gregg, and Joan Wynne.

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**College of Education and GSN  
Research Conference  
Peer-Reviewed Papers**

## Effects of Contingent Maternal Imitation vs. Contingent Motherese Speech on Infant Canonical Babbling

Maria I. Bendixen and Martha Pelaez  
Florida International University, USA

**Abstract:** Maternal vocal stimulation plays a vital role in infants' language acquisition. Contingent maternal imitation and contingent motherese speech were used in an alternating sequence as reinforcers to a 12 month-old infant's canonical babbling. Both vocal contingencies function as reinforcers; however, motherese speech produced the highest frequency of canonical babbling.

In the past three decades, the study of infant vocal development has yielded a deeper understanding of the emerging language in children (Oller, Eilers, Neal, & Schwartz, 1999). Early infant vocalization, starting as early as three weeks after birth, are precursors to speech. The sounds of the infant develop systematically and show a maturation of speech even before the child utters a single word. This knowledge has motivated research to identify infants who may be at risk of developing language delays. Research on older infants' speech, however, is less conclusive and less common than studies with younger infants (McRoberts, McDonough, & Lakusta, 2009). Our programmatic research has shown that the early sounds produced by infants at 3-months elicit a response in adults (Pelaez, Virués-Ortega, & Gewirtz, in press). It is widely recognized that the acquisition of language is facilitated by a special manner in which adults speak to babies and toddlers, called baby-talk, motherese, or infant-directed (ID) speech (Falk, 2004). ID is particularly recognizable in the tone of voice the adults use; it is a type of sing-song way adults commonly use to communicate with young children. This type of speech is also commonly accompanied with visual interaction, gestures, and touch. For example, a mother speaking to her 5 month-old infant might use short sentences, a high pitch, exaggerated intonation, raised eye-brows, and a smile, while asking her baby how he is doing today. A universalist hypothesis states that ID speech may even contribute to initial infant emotional regulation, then to socialization, and finally to the acquisition of speech in a sequential, age-appropriate manner (Falk, 2004).

This research examined the reinforcing effects of two maternal vocal topographies (maternal imitation and motherese speech) on infant vocalization (canonical babbling). The purpose of this research was to find out which type of response is most effective in increasing the frequency of babbling in a 12 month-old infant. We know that children's earliest communication is an attempt to share and obtain information (Golinkoff, 1993) and that infants progressively expand their ability to communicate with others by coordinating behaviors from different expressive modalities, such as gaze, facial expressions, and vocalizations (Lin & Green, 2009). Moreover, infant speech screening procedures can help identify infants who are at risk of speech and language-related disorders (Oller et al., 1999), such as language-based learning disabilities, autism spectrum disorders, and speech delays among others.

Oller et al. (1999) propose 4 stages in infant vocal development. The phonotaxial stage, producing quasivowels, is apparent in the first two months of life. In the second stage, primitive articulation stage, usually apparent at 2-3 months of age, infants produce sounds called cooing. In the third stage, called the expansion stage, infants produce full-like vowel sounds. Finally, in

the canonical stage, infants produce well-formed syllables. Infant speech sounds more like adult speech. Canonical babbling is usually apparent in normally developing infants by the age of 10 months. Oller et al. (1999) point out that infants with language delays almost always begin the canonical stage after 10 months. This research will focus on the canonical stage in infants.

Imitation has been a subject of psychological investigation for many years. It has also been an important concept of study in linguistic development (Kymissis & Poulson, 1990; Pelaez et al., in press). Learning theorists have regarded imitation as a way to facilitate language acquisition in the past. It is now understood that imitation as part of a social interaction is more effective for language acquisition. For this reason, imitation, such as occurs in the context of a social interaction, was used as one of the interventions.

In sum, literature reveals that maternal vocalizations play an important role in language acquisition and development in infants. Pelaez and her colleagues (in press) indicate contingent maternal imitation as a better reinforcer for infants ages 3-8 months. However, no attempt has been made to test this treatment with 12 month old infants. For this reason, this paper focuses on a 12 month-old infant, which is developmentally more advanced than an 8 month-old infant, shifting the effectiveness of the two treatments. The purpose of this research was to determine which type of maternal vocal responses is most effective in increasing the frequency of babbling in a 12 month-old infant. For this reason, in the present study, eye contact, smiles, and positive gaze of the mother were maintained constant. This experiment tested the hypothesis that contingent motherese speech would serve as a better reinforcement than contingent verbal imitation in shaping the infant vocal responses.

## **Method**

### *Participant*

One typically developing 12 month-old white Hispanic infant female and her mother participated in this study. The mother reported no prenatal, perinatal, or postnatal complications. The infant's native language was Spanish.

### *Setting and Apparatus*

The study was conducted in the playroom of the infant's home. The playroom was a self-contained room. The door was shut to minimize distractions. The mother sat on the floor across from the infant and toys were placed on the floor for the child to play with. Toys included wooden blocks, books, a toy phone, and a peek-a-boo plastic toy. One portable camcorder and stopwatch to record time were used.

### *Design*

The infant participated in a baseline followed by alternating treatments and a final probe phase design composed of the following conditions: baseline (control condition) (A<sub>1</sub>), imitation (B<sub>1</sub>), and motherese (C<sub>1</sub>). The following order was used:

A<sub>1</sub>A<sub>2</sub>A<sub>3</sub>A<sub>4</sub>B<sub>1</sub>C<sub>1</sub>B<sub>2</sub>C<sub>2</sub>B<sub>3</sub>C<sub>3</sub>B<sub>4</sub>C<sub>4</sub>...B<sub>11</sub>C<sub>11</sub>A<sub>5</sub>A<sub>6</sub>A<sub>7</sub>A<sub>8</sub>

### *Procedure*

The mother made sure the infant was fed, dry, and rested during the sessions. Four 2-minute baseline sessions were conducted before the intervention. The mother acted as she normally would act with her infant. The frequency of the infant's vocalization was videotaped.

The two conditions, contingent motherese speech (infant-directed speech) and contingent infant imitation, were implemented through 2-minute sequential trials in single 10-minute sessions. Each condition lasted 2-minutes and was separated by a 30-second inter-trial interval. Conditions were never presented consecutively. The order of the interventions was determined randomly. Both interventions were accompanied by mother smiles and eye contact as normally

occurs between mother and infant. Mother was aware to control for density of stimulation in maternal imitation and motherese speech.

The dependent variable was canonical babbling and can be defined as the production of well-formed syllables, often reduplicated sequences consisting of at least one full vowel-like element and one consonant-like element. Examples: [ba], [ati], [nana], and [dada]. Examples of noncanonical babbling: squealing, growling, coughing, sneezing, grunting, laughing, crying and so on (see Oller et al., 1999). The independent variables were contingent motherese speech and contingent maternal imitation. Motherese speech is a rhythmic type of speech mothers use to communicate with their infants around the world. It is characterized by simplified vocabulary, repetitious, exaggerated vowels, higher overall tone, slower tempo, rising intonations. It is also commonly called “baby-talk” and in research sometimes referred to as ID speech (Falk, 2004). This type of speech is commonly accompanied by smiles, eye contact, gestures, and physical contact. Examples: “Good baby”, “Yeah,” “Aha”. For the purpose of this experiment only eye contact and smiles accompanied motherese speech, which was limited in length appropriate to the child’s length of vocalization. In maternal imitation the mother repeated what the infant said, trying to match length and tone.

Data collection consisted in determining how many well-formed syllables the infant produced. This was performed by analyzing the video recording on the infant and plotting the results. Data was analyzed by counting the frequency of infant vocalization per trial. The frequency of infant vocalizations per 2-minute trial represents a dot on the graph.

#### *Inter-Rater Agreement*

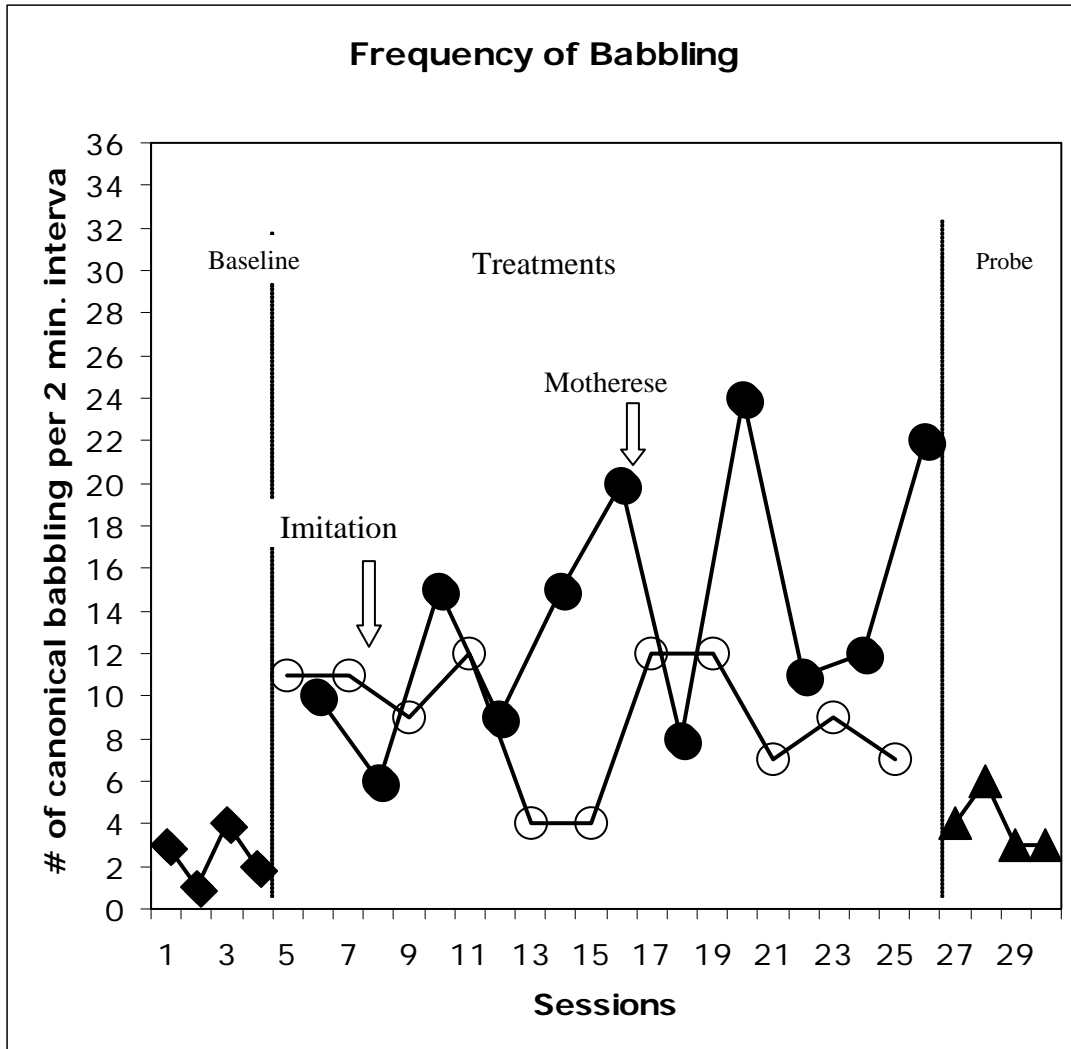
One independent observer was trained. Interrater agreement was calculated for 75% of sessions. Interobserver agreement was calculated by dividing the total number of intervals with agreement by the total number of intervals and converting this to a percentage. Interobserver agreement for infant canonical babbling was 85%.

#### *Analysis*

Results were visually analyzed. Visual analysis is generally used when continuous numerical data are gathered using permanent records such as a video tape recording, data are graphically depicted, and the researcher examines level (performance on the dependent variable-vocalizations) and trend changes (Richards, Taylor, Ramasamy, & Richards, 1999). In other words, the researcher examines the number of data points, the variability of the performance, and the direction and degree of trends that occur. For the purpose of this research, well formed syllables produced by the infant as a response to the mother’s imitation or motherese were manually counted from the video recording and saved on a spread sheet. These were plotted on a graph (see Figure 1) for visual inspection.

### **Results**

As seen on Figure 1, immediate change in level of behavior when an intervention is presented indicates that both interventions increase the frequency of babbling in the infant. Although there exists some variability, upward trend in the data points is evident. Visual analysis is making inferences about behavioral changes by inspecting and evaluating graphed data (Richards et al., 1999). Visual analysis of the data suggests a higher frequency of canonical babbling during motherese speech ( $M=13.8$ ) than during imitation ( $M = 8.9$ ). It can be concluded that contingent motherese speech increases the frequency of infant canonical babbling in a 12 month-old infant more than contingent imitation.



*Figure 1.* Shows the frequency of infant vocalizations under two treatment conditions: maternal vocal imitation (open circles) versus motherese talk (dark circles) using an alternating treatment design. Baseline was obtained before and after intervention as control phases.

### Discussion

This study attempted to separate the reinforcing effects of contingent maternal imitation and contingent motherese speech and showed that the effects of motherese speech on a 12 month-old infant were significantly higher. This study offers a preliminary comparison of the reinforcing effectiveness of motherese speech on 12 month-old infants, which was missing in the literature with older infants.

These results should be taken with caution because they have not yet been replicated at 12 month-old. For future research, it would be useful to use prompts at the beginning of the sessions in order to elicit responses instead of waiting for the infant to spontaneously produce a vocalization. These findings can be useful in the fields of developmental psychology, early childhood education, and speech and language pathology in order to design interventions that are developmentally appropriate for infants at risk of language development.

### Limitations

Because motherese in humans is multimodal, involving auditory stimulus as well as gestures, facial expressions, and touch in addition to vocal utterances, results of this study may lack external validity. External validity is the ability to generalize these results to the general population. Although, threats to external validity were controlled to some extent because the observed dyad was a mother and child in their natural environment, to increase external validity we would need a larger sample size.

### Conclusion

In early infancy, maternal vocal imitation has served as a more effective reinforcer for infant's vocalization than motherese speech (Pelaez et al., in press). However, as infants develop, the effects of imitation are less and motherese speech seems to have a stronger effect. These preliminary results suggest that even though both contingencies are powerful reinforcers, contingent motherese speech produces a higher frequency of babbling on this particular 12 month-old infant. Overall, these two types of maternal vocal stimuli play a critical role on shaping infant precursors of language.

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## **Sexual Health Education and Family Planning: A Vital Component of the Healthy Start Program**

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**Abstract:** The paper will describe the Healthy Start program as a comprehensive sex education program and implications for preventing subsequent adolescent pregnancies.

The adolescent pregnancy rate in the United States is double the rate in England, France, and Canada and nine times the rate of the Netherlands and Japan (Kirby, 2007; Shimp & Smith, 2008). Each year in the United States, approximately 850,000 or 8% of adolescents between the ages of 15-19 become pregnant (Guttmacher Institute, 2006; Kirby, 2007; Realini, 2004). The cumulative proportion of adolescent women becoming pregnant increases each year, resulting in 30% of girls in the United States having a second child before their twentieth birthday (Kirby, 2007).

Adolescent pregnancies result in consequences to the individual, infant, family, and society as a whole. Adolescent childbearing costs taxpayers about \$7-15 billion per year (CDC, 2009; Kirby, 2007; Shimp & Smith, 2008). Adolescent mothers are less likely to complete school, go to college and are unemployed or underemployed (CDC, 2009; Kirby, 2007; Shimp & Smith, 2008). Adolescent mothers have higher rates of low birth weight infants (LBW), prematurity, and infant mortality (CDC, 2009; Kirby, 2007; Sloane et al., 2008). Children born to adolescent mothers are also at increased risk for abuse, neglect, lower cognitive development, less education, behavior problems, and likely to give birth themselves as adolescents (CDC, 2009; Kirby, 2007; Shimp & Smith, 2008).

Adolescent pregnancies are usually unintended, occur outside of marriage and are more common among poor minority women (CDC, 2009; Finer & Henshaw, 2006; Kirby, 2007; Shimp & Smith, 2008). Unintended pregnancy is defined as a pregnancy mistimed or not wanted at the time of conception and is the result of lack of contraception or failure of contraception (CDC, 2009; Shimp & Smith, 2008). Although 80-90% of adolescents report using condoms the most recent time they had sex, most do not use contraceptives carefully and consistently (Kirby, 2007). Only 70% of adolescent women relying on oral contraceptives report taking the pill every day (Kirby, 2007). The educational prevention programs to reduce adolescent pregnancies usually take two forms: abstinence only and comprehensive sex education programs. Abstinence only programs focus on abstinence as the only sure way to avoid pregnancy, while comprehensive programs present abstinence as the most effective way to prevent pregnancy and contraceptives as an appropriate strategy for those who are sexually active (Kirby, 2007; Miller, 2007; Realini, 2004; Sanie, 2004; U.S. Department and Health and Human Services, 2001).

Healthy Start, a government sponsored program in the state of Florida, offers comprehensive services to pregnant women, infants and children up to three years who are identified as at risk of poor birth, health and developmental outcomes (Healthy Start, 2005). Comprehensive sex education and family planning services are also offered as a part of the Healthy Start initiative to reduce unintended pregnancies. Family planning is defined as deciding the size and spacing of your family and choosing a birth control method that is best to prevent an

unexpected pregnancy (Healthy Start, 2005). The purpose of this paper is to describe the Healthy Start program as a comprehensive sex education program and implications for preventing subsequent adolescent pregnancies. The paper will be organized into four sections: (a) the historical context of adolescent pregnancy, (b) adolescent pregnancy prevention programs, (c) the Healthy Start program and finally, (d) implications for adult learning.

### **Historical Context of Adolescent Pregnancy**

During World War II, six million women entered the workforce and changed the face of the family unit forever (Labor Unions, n.d.). Prior to the war, the nuclear family consisted of a working father, a stay at home mother and their children. With an increase in paternal death as a result of the war, more women were left widowed, and their responsibilities increased to include financial support. This consequence of the war led to the development of several government sponsored programs aimed at providing financial support for the new nuclear family, the single widowed mother. The Aid to Families with Dependent Children (AFDC) established by the Social Security Act of 1935 is a grant program where states provide cash welfare to children whose parents work outside the home and who are deemed to have inadequate parental support (AFDC, 2004).

Adolescent pregnancy or teen pregnancy, defined as conception between 13-19 years of age, first measured in the 1950s, was not always considered a problem (Popeono, 1998). Throughout history, women married and bore children at the age of sexual maturity (Popeono, 1998). Sexual maturity is defined as the onset of first menstruation in women and the ability to conceive and bear children (Medical Dictionary, n.d.). In 1950, the average age of sexual maturity was 16-19 years; however, by the late 1960's, the age dropped to 12-15 years of age (Popeono, 1998). Over 75% of adolescent mothers received cash welfare assistance from AFDC within five years of their first birth and 55% of AFDC mothers were adolescents at the time of their first birth (Nathan, Gentry, & Lawrence, 1999).

In 1967, a law was enacted that mandated states to offer family planning to AFDC recipients in "appropriate cases"; in 1976, sexually active minors were included in the "appropriate case definition" and mandated to be provided family planning upon request (Nathan et al., 1999). Even with the new guidelines, the continued benefits to single welfare mothers led to much debate as to whether such aid acts as an incentive for teens to have children. In an effort to dispel such questions, this act was reformed in 1996.

The new act, The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) or Welfare Reform Act of 1996, replaced AFDC, AFDC administration, the Job Opportunities and Basic Skills Training (JOBS) program, and the Emergency Assistance (EA) program with a cash welfare block grant called the Temporary Assistance for Needy Families (TANF) program (Administration for Children and Family, 1996; AFDC, 2004). PRWORA includes a five year lifetime limit on the length of time a family can receive federal assistance, a mandatory work participation component, and finally a plan to decrease teen and out of wedlock teen pregnancy rates (AFDC, 2004; Kirby, 2007; Nathan et al., 1999). TANF includes mandates on teen parents to continue attending school, to participate in parenting classes, to live with a responsible adult and to engage in educational/training activities (Administration for Children and Family, 1996; Guttmacher Institute, 2006; Kirby, 2007; U.S. Department of Health and Human Services, 2001).

Beginning in 1998, \$50 million was spent each year on abstinence education as a result of the reform. In addition, the Secretary of Health and Human Services (HHS) was mandated to establish and implement a strategy to (a) prevent non-marital teen births, and (b) assure that at



least 25 percent of communities have teen pregnancy prevention programs (Guttmacher Institute, 2006; U.S. Department of Health and Human Services, 2001). Since abstinence only programs have been shown to have little effect on adolescent pregnancy, number of sexual partners, and age of initiation of sex, preventative programs have been developed focusing on reducing teen pregnancy and sexually transmitted diseases (Kirby, 2007; Sanie et al., 2004).

### **Adolescent Pregnancy Prevention Programs**

Preventative programs include youth social development programs, abstinence only programs, comprehensive sex education programs, and sex and contraception counseling (Sanie et al., 2004). The youth social development programs focus on changing high risk behaviors and early sexual activity through social and psychological skill development (Sanie et al., 2004). Abstinence only programs teach that the only way to avoid extramarital pregnancies is to abstain from sexual intercourse; other forms of contraception are not introduced (Kirby, 2007; Sanie et al., 2004). A concern with abstinence only programs is the limited sexual education provided, and, in some cases, misinformation to adolescents regarding healthy sexual practices (Ott & Santelli, 2007). Sex and contraceptive counseling programs can be started in the school setting, at home by parents, or in a primary health care setting (Lindau, Tetteh, Kasza, & Gilliam, 2008). Counseling started in the home has been shown to be most effective in delaying initiation of sexual activity (Sanie et al., 2004).

Comprehensive sex education programs teach adolescents that abstinence is the primary method of preventing pregnancy, and provides an overview of methods of contraception and sexually transmitted disease prevention (Sanie et al., 2004). An evaluation of forty-eight educational interventions revealed that these programs did not accelerate sexual initiation (Kirby, 2007). However, a reduction in adolescent pregnancy, increased condom use, increased contraceptive use, and a decrease in risk taking behaviors were noted (Kirby, 2007). Although some of the programs studied emphasized one or some prevention methods, few incorporated all methods effectively.

### **The Healthy Start Program**

Healthy Start begins with preconception counseling, extends to all mother and childcare services and is targeted to populations at risk for adverse birth, health and developmental problems, such as adolescent mothers (Healthy Start of Miami Dade, 2005). Issues addressed in Healthy Start are preventative services, prenatal care, healthcare needs (nutrition, medications and immunization), psychosocial support, perinatal depression screening and healthcare access inequality (Roberson, 2008).

Core services provided by the Florida State Healthy Start Program are case management by care coordination, outreach and consortium through coalition, health education regarding nutrition, parenting, childbirth and breastfeeding, inter-conceptual care and pregnancy prevention counseling (Healthy Start of Miami Dade, 2005). Selection of services were based on the mission of the National Healthy Start Program to develop community based maternal and child health programs pertaining to infant mortality, low birth weight babies and racial disparities in perinatal care (Roberson, 2008).

Ideally, all pregnant Florida residents are screened for the Healthy Start program based on identified risk of poor maternal, infant, or child outcomes. Ongoing services are provided to ensure optimal health and development (Healthy Start of Miami Dade, 2005). Women and children who are at risk or in need of interventions are funneled into additional services and are followed up (Healthy Start of Miami Dade, 2005).

Interconceptional Care and Counseling (ICC) is an educational service provided through Healthy Start in Florida. Culturally sensitive comprehensive parental education and counseling are given by trained personnel (Healthy Start of Miami Dade, 2005). Activities and counseling are provided to women concerning access to health care, baby spacing, nutrition, physical activity, maternal infections, chronic health problems, substance abuse, smoking, mental health and risk problems (Healthy Start of Miami Dade, 2005). One to one educational activities, support groups and formal education are given about nutrition, family dynamics, child abuse, unintended pregnancies and childhood injury prevention (Healthy Start of Miami Dade, 2005).

### **Implications for Adult Learning**

The outcomes of effective comprehensive sex education demonstrate lower incidences of adolescent pregnancy, increased condom use, increased contraceptive use, and a decrease in risk taking behaviors (Kirby, 2007). Analysis of 19 effective comprehensive sex education programs revealed 17 common characteristics that fall into three categories: (a) the process of developing the curriculum, (b) design and teaching strategies, and (c) the process of implementing the curriculum (Kirby, 2007). Most of these programs started off by setting ground rules for involvement such as not asking personal questions and respect for peer opinion (Kirby, 2007). The content of effective comprehensive sex education programs focus on STD and pregnancy prevention. Short lectures, class discussions, games, skits, videos and simulations demonstrating pregnancy risk and consequences have also been used in these programs (Kirby, 2007).

The Healthy Start Program provides a valuable service in Florida by providing comprehensive sex education and family planning services to adolescent mothers. However, a report released by the organization in 2009 revealed that 25% of women in the program had a repeat pregnancy within 18 months (Northeast Florida Healthy Start Coalition, 2009). Comprehensive sex education provided by Healthy Start should be evaluated for the 17 common characteristics found among the most effective comprehensive sex education programs. By doing so, strengths and weaknesses of the program could be addressed which may result in more sustained behavioral changes that surpass 18 months.

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## Motivational Strategies for Correctional Practitioners

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**Abstract:** The purpose of this paper is to examine the significance of motivational strategies on offender participation in learning. Education is an effective tool to assist offenders to become productive citizens in society. Therefore, the correctional practitioners must have effective motivational methods to impact the educational development of offenders.

Education is a valuable tool for making changes in the lives of the adult offender population. The adult offender population includes those who are currently incarcerated, parolees, and probationers. According to the Bureau of Justice Statistics, 68% of inmates (offenders) are high school dropouts. These offenders have a higher rate of recidivism than offenders who have a 12<sup>th</sup>-grade education (Harlow, 2003). Approximately two million men and women are currently incarcerated in the nation's penitentiaries, and 75% of them will commit a new crime within three years upon release from prison (Hall & Killackey, 2008). Inmates are being released from prison with little education, job training skills, or the ability to find employment. Incarcerated inmates who attended correction education were less likely to return to prison. Offenders have a greater chance for employment and better social economic life with a 12<sup>th</sup>-grade education than those who failed to obtain a GED (Harlow, 2003).

The success of offenders' education is dependent upon them actively participating in and completing education programs. Participation in an education program is closely related to correctional practitioners' ability to solicit students and motivate them to enroll and stay in the educational programs. Correctional practitioners (CP) are those teachers, social workers, counselors, and probation officers who have a direct impact on offenders' educational progress. The offender population is a special adult education group that requires effective adult learning and motivational strategies in order to thrive (Ashcroft, 1999). This research involves examining how effective motivational training and strategies for CP can have an impact on the participation of offenders in educational programs. This paper will strive to demonstrate the benefits properly trained CP can have on positively affecting the education of offenders.

### Practitioner Challenges

CP face numerous challenges when working with the offender population. Distinctive incidents that occur in prison, such as lock-downs, head counts, hearings, meetings with lawyers, and compound disturbances, disrupt the regularity of the corrections classroom (Geraci, 2002). Inmate learners are often dealing with stressors at a level higher than learners in classrooms outside the confines of prison. Overcrowding and inadequate funding for teaching personnel are two factors that determine the success of correctional education (Hall & Killackey, 2008). Lack of funding can influence the amount of training facilities provide to instructors. Some certified teachers are not well prepared for the challenges of the offender population and cannot teach well in the correctional environment. As a result, learning cannot happen because the correctional educator has failed to recognize how incarcerated learners learn and retain information (Zaro & Gehring, 2007). Corrections educators should be skilled in methods of

instructing diverse populations in order to recognize the different learning styles and the learning needs of inmates.

Upon release, offenders may participate in adult community or alternative education programs. Practitioners trained in traditional methods may not have the skills needed to properly work with offenders. CP need training tailored to the criminal justice system, including training on motivating the learners. Lack of motivation and stimulation of interest can result in low attendance in programs as well as lack of progression of the offenders. Therefore, it will appear as if the incarcerated or released offenders do not want to learn or the educational programs are not effective. Once offenders are released, judges may mandate GED or vocational training to probationers (offenders) that are on probation as a special condition. The mandatory class attendance does not ensure that the offender will be inspired to focus on learning. Without interest, the learner is simply attending in order to satisfy a requirement, not increase their educational level.

### **Participation**

The justice system has often incorporated mandatory school attendance as part of sentencing. Forcing inmates to attend school as part of their sentence is not used by all prisons and jails. Therefore, offenders who are serving sentences may not be motivated to participate in the educational programs. In addition, there may be no incentive for participating in the program. Some facilities do provide incentives such as gain time or fewer days on their sentence, but other facilities do not (Gerarci, 2002). The fact that not all inmates truly choose to attend educational programs is only one of the challenges CP face when attempting to motivate inmate students to participate and progress. When class is not the offender's choice, their participation will be low and, eventually, they will drop from the program if they are not motivated. Poor work habits and lack of motivation appear to characterize the correctional client, and this affects their level of involvement in educational programs. Offenders need motivation and engagement in order to successfully promote productive participation.

### **Motivation**

Many correctional practitioners are neither fully prepared for their role as motivator nor fully prepared for the pessimistic views many offenders may hold towards education. Inmates who have dropped out of high school have poor self-confidence and negative attitudes about education because of negative experience with school prior to incarceration (Hall & Killcky, 2008). The institutional structure of corrections settings make a great deal of what teachers learn for public school teaching impossible (Lewis, 2006). People employed in CP positions must be trained to motivate offenders to participate in education programs. External motivation from correctional practitioners, such as the probation or parole officer, may be needed. CP may not be motivated themselves because of lack of training, high case loads, or underpay. They also may not understand the importance of enthusiasm and inspiration – which are both crucial elements of motivation (Clark, Walters, Gingrich, & Meltzer, 2006). CP should be trained to use effective motivational strategies to encourage offenders to take advantage of educational resources.

CP can use *motivational interviews* to get offenders to engage in self-motivation, to address behavior changes, and to provide approaches for handling difficult offenders (Clark et al., 2006). A motivational interview is a way of talking to people that focuses on changes in behavior. Clark and colleagues (2006) suggest that CP can help offenders successfully complete probation through motivational change. A motivational approach is about two way-communications between the CP and offender in order to reach a common goal. The

motivational approach may not work with all offenders, but it is a valuable tool which should be employed. CP can improve their work performance through the use of motivational strategies.

One motivational strategy correctional practitioners should consider is the ARCS Model (Keller, 2000). The ARCS Model is a method for improving the motivational appeal of instructional materials, involving four motivational concepts: (a) attention, which is the use of strategies to gain initial interest; (b) relevance, which means relating the material to the learner's needs and wants; (c) confidence, which is providing a sense of self worth and ability for success in challenging tasks; and (d) satisfaction, which consists of intrinsic and extrinsic rewards. The ARCS model has been used in various educational and training contexts, as well in various demographics and countries. Motivation is not only the learner's but also the instructor's or designer's responsibility. The instructor's role is to create and sustain interest in academic subjects, which stimulates the student's motivation (Keller, 2000). This role places the motivational responsibility on the CP and why the ARCS model serves as a well-suited training model to use with CP. Creating an atmosphere of interest is especially pertinent with the offender population, because many of these students have experienced such great failure in life that they are not willing to risk failure in the instructional setting. CP should consider utilizing Keller's motivational concepts to develop effective strategies for diverse offender populations. CP will be able to identify the affective needs of the offender (learner). As a result, performance in educational programs should increase when practitioners learn to increase motivation.

#### *Attention*

First, a CP should gain the initial interest of the learner. Gaining a learner's attention involves the offender having a readiness to focus their attention on the subject matter (Keller, 2000). There are effective strategies such as inquiry, thought-provoking questions and use of variety which can gain the offender's attention. Incentives and rewards seem to motivate offenders to participate in scholarship. Offenders would be interested in participating in learning opportunities if they could see an immediate relevance to their personal life or future employment.

#### *Relevance*

The second important factor is to incorporate relevance in their field of practice, whether in the classroom or office setting. Offenders need to have choices in their learning and be a part of the solution so that they can become independent once they leave the system. It is important to write motivational objectives that match the needs of the learners. The ARCS model recommends that the designer conduct his or her own learner analysis to determine the most effective strategies for gaining and sustaining interest, providing relevance, creating confidence and increasing fulfillment (Keller, 2000). Relating learning to the offender's life is a strong motivational approach. Offenders who have a sense of responsibility for themselves and others are motivated to learn. For instance, incarcerated women were more likely to enroll in GED program and vocational training for the benefit of their children, because they did not want to return back to prison and miss out on the child's life (Rose, 2004). This expresses the strong need for relevance to be used as an integral part of the strategy to encourage education.

#### *Confidence*

The third category of the ARCS model is creating confidence, which provides a sense of self-worth and involves the following strategies of providing (a) learning requirements in the form of clear objectives, (b) success opportunities early and often enough to establish the learner's belief in his or her ability to achieve, and (c) personal control over the learning with choices of content, objectives, and activities (Keller, 2000). For many offenders, the experience

of being incarcerated or involved in the criminal justice system has a negative effect on their confidence. Once CP identifies offenders' needs, CP can set small goals with offenders and help them achieve small milestones. As a result, CP can start building or rebuilding offenders' confidence. Well-designed programs that address offenders' needs may change offenders' attitudes and behavior.

### *Satisfaction*

The final condition, closely related to confidence, is satisfaction. Offenders must have some enjoyment from participating in the education program in order to continue throughout the duration of the course or class. The use of fear and threats to take one's freedom may be effective with some offenders but it not the best practice; personal fulfillment is more useful. The learning experience must fulfill a want or a need of the learner. Fulfilling the learner's need relates to the relevance factor, also part of the ARCS Model. The concept of satisfaction includes (a) increasing the natural consequences for use of the content, simulations, projects, and real-life activity; (b) providing positive consequences—both intrinsic and extrinsic rewards; and (c) assuring equity of rewards so that they match achievements (Shellnut, 1996). Offenders need to be satisfied with their accomplishments in order to see real value in the process.

### **Ways to Cope with Challenges**

Motivation is an essential aspect of rehabilitation in order to change offenders' behavior. CP often fails to implement motivational strategies to help offenders changes their behaviors. Probation officers and instructors do not view themselves as counselors; thus, they may take on a confrontational approach which prevents offenders from developing a desire to change their behavior. A confrontational approach can make probationers resist to compliance. As a result, probationers are uncomfortable to talk about desired changes (Clark et al., 2006). Offenders may be more receptive to change their behavior if CP enhance the readiness to change through interactions with probationers. Probation officers and instructors can begin by using motivational strategies to help probationers establish goals.

Some offenders have no desire to learn or change their behavior. CP have to develop learning strategies that focus on teaching adult offenders, and offenders have to be engaged in the learning process. It is imperative for CP to remove anxiety, fear, and threat from the learning environment. CP can establish two-way communication in order to demonstrate respect and acceptance of offenders with diverse background. Offenders may need more guidance in making choices; therefore, CP need to be proficient and effective in the services they provide to the offenders. All of these methods for coping with offenders in education programs can be achieved through training. Much of the focus of CP training should be on the affective aspects of the offender and how to increase learner's motivation. Education can be a successful tool to promote changes when offenders want to better their lives; however, some offenders have no plans, goals, or desires to be productive in society. As a result, the CP face the test of how to encourage education when the offenders are not inspired. An offender resistant to learning may also have the option to opt out of the educational program. Therefore, CP need to have a better approach to stimulate offenders' motivation.

### **Benefits of Education**

Inmates who earn a GED while incarcerated returned to custody within three years at a significantly lower rate than offenders who did not earn a GED while incarcerated (Nuttall, 2003). Effective education programs provide better job opportunities for offenders and lead to less violence by inmates (Veca, 2004). Participation in correctional education increases offenders' self-esteem. As a result, the offenders are motivated to learn other vocational skills.

Job training programs aim to provide basic skills to unemployed or low-wage workers so that they can be productive members of the workforce (Lafer, 2002). Vocational training programs enhance offenders' chances to have a better life and not to return to criminal activities. Education has demonstrated its ability to improve the lives of offenders, but without the proper promotion, encouragement, and motivation from CP, many offenders will not participate in educational opportunities. The benefits of education support the need for motivational training for CP.

### **Recommendations**

CP goals are to change offenders' behavior while incarcerated or upon release. One method for enacting change is through education. For the offender population, there are several barriers to education. One of the barriers should not be undertrained CP. If CP are better prepared for their role of motivator, they may initiate higher instances of participation in education programs, as well as compliance. The first recommendation is for more CP training. This training is not related to the rote administrative functions of their positions, but how to effectively interact with and motivate the offenders they work with each day. Facilities and government organizations must begin to provide training for instructing inmates, as well as successful strategies for retention in the alternative adult education settings in the community. The second valuable recommendation is for further research into effective motivational methods. While the ARCS model is suggested and has been used with all populations, perhaps a more effective motivational tool for offender populations exists or is yet to be created. It is important that scholars investigate this area of adult education in order to fully understand the implications of motivational strategy training on CP.

### **Conclusion**

Effective education can promote change when CP address the needs of offenders. However, the offender must want to change, because rehabilitation is a contract between the offenders and the CP. Mandatory education attendance takes away from the adults' desire to be self-directed in their learning and, therefore, removes some of the prime motivational elements of relevance and satisfaction. Once an inmate chooses to participate in an educational program, motivation and retention should be the focus. The burden of motivating inmate students is often placed on the instructor. There is a need to incorporate both motivational and different teaching strategies to accommodate the diverse population present in the corrections classroom. The most powerful and valuable educational experiences are the result of intrinsic motivation. In order to elicit intrinsic motivation, correctional practitioners need both to make instructive goals more individual and to cater to the learning requests of the inmates. CP must be trained better in instructing inmates, the culture of corrections education, and effective strategies for retention in the captive corrections setting as well as the alternative adult education settings in the community. In order to make the necessary improvements to the field of offender education, more diligent and focused research on the effectiveness of motivational training for practitioners is necessary. Until that time, CP should focus on increasing the amount of individualized instruction and creating enthusiastic learning communities in order to motivate and retain offenders in education programs.

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## **Contrastive Rhetoric in English-Chinese Context: From Schemata and Cultural Schemata to Rhetorical Features**

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**Abstract:** This paper reviews studies concerning rhetorical differences in Chinese and English and investigates the communication between Chinese and English rhetorical conventions. Differences are found in the two conventions in terms of thinking patterns, ideology, strategies, and audience. Implications for multicultural education are provided.

Rhetoric is defined as the choice of linguistic and structural aspects of discourse – chosen to produce an effect on an audience (Purves, 1988). According to Purves, rhetoric is a matter of choice to produce certain effects as opposed to those that are determined by lexical and grammatical structures. Contrastive rhetoric, a subset of text linguistics, examines the dynamics of writing between different language systems and cultures. It studies rhetorical patterns in different cultures and languages, and investigates how two languages interact in the writer's production when the writer knows two or more languages.

Purves (1988) explained the rationale for contrastive rhetoric, mentioning two comparative studies of writing, Scribner and Cole (1981) and Heath (1983). In those two studies, the relation of culture to discourse and particularly to written discourse is examined. Both studies come to one point: cultural groups to which an individual belongs have different ways of using and perceiving written texts. The cultural differences in written discourse are manifested in two aspects: what is written and how it was written.

### **The Cornerstone of Contrastive Rhetoric**

The theory of contrastive rhetoric was originated from the theory of linguistic relativity, called the Sapir-Whorf hypothesis of linguistic relativity or the Whorfian hypothesis, which suggests that different languages affect perception and thought in different ways (Connor, 1996). The Whorfian hypothesis has been criticized frequently by linguists and psychologists (Clark & Clark, 1977; Fishman, 1977; Pinker, 1994). But Hunt and Agnoli (1991), after careful review of theories and experiments in linguistics and psychology, state that every language is translatable, but there is often a loss involved – an utterance that is completely natural in one language may be completely unmanageable in another. This supports the Whorfian hypothesis that language influences thought. In 1966, Kaplan confirmed the Whorfian view that language influenced thought and declared that logic and rhetoric were culture specific (Kaplan, 2001).

### **Method**

The literature review process is composed of two phases. Phase I is to search for dissertations about second language writing in English and Chinese contexts. Trochim (2001) suggests that it is helpful to find a similar study containing a literature review. By checking this literature review, we can have a quick start on our own literature review (Trochim, 2001). I delved into dissertations to get rich descriptions of research methodology and detailed information about those rhetorical conventions including the right academic sources. Usually the sources were books or research reports. Some valuable journal articles were also found. After searching Dissertation Abstracts with keywords *contrastive rhetoric*, *Chinese*, *English*, *second*

*language writing* and *cross-cultural writing*, I got more than 100 dissertations, of which six matched my research interest.

From these six dissertations, books, reports and journal articles were found about the theory of contrastive rhetoric and contrastive rhetoric in Chinese and English contexts. All the materials were read through and details related to my research interest were noted down and coded. During this process, a literature review framework was built up and refined gradually. In the end, three issues came out to form the literature review framework: (a) Are there different thinking patterns in different cultures? How do they influence cross-cultural writing, especially in English and Chinese contexts? (b) Do cultural schemata have an impact on students' cross-cultural writing? What is it like in English and Chinese context? (c) How do scholars in this field contrast Chinese rhetoric and English rhetoric? What are the findings?

After the framework was established, Phase II was conducted. GoogleScholar.com was searched for related academic sources in a more extensive way in order to fill in any hole that may have existed in the Phase I literature search. The same key words as those in Phase I were used. Findings emerging from the literature review are categorized below as follows: (a) schemata, (b) cultural schemata, and (c) contrastive rhetoric of Chinese vs. English.

### Schemata

The inquiry into contrastive rhetoric was first started by exploring different thinking patterns in ESL (English as a second language) students' writing. In 1966, Kaplan analyzed the English expository writings of some 600 ESL students. In that study, by comparing ESL students' English writings with English rhetoric textbooks, Kaplan identified five distinct rhetorical patterns: English, Semitic, Oriental, Romance, and Russian (Kaplan, 2001; see Figure 1).

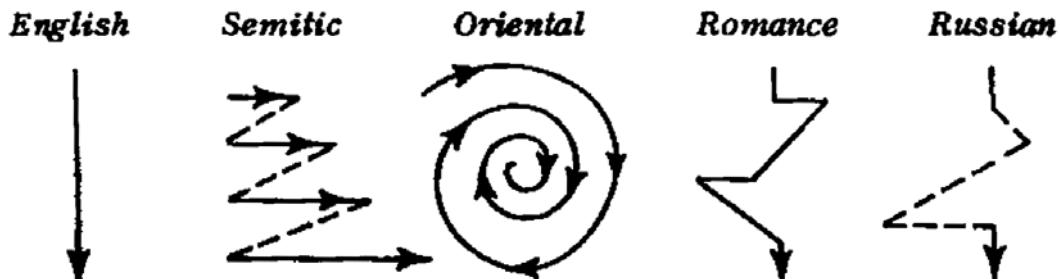


Figure 1. Five rhetorical patterns.

Thus, he suggested that rhetoric varies from culture to culture, and that the rhetoric in the first language can be transferred to students' second language writing (Kaplan, 2001). Kaplan's study was a continuing pursuit of the Sapir-Whorf hypothesis, which postulates that differences in the syntax and semantics of a language may influence the thought patterns of native speakers and writers of different languages (Whorf, 1956).

### *Western Verbal Logic vs. Chinese Nonverbal, Pictorial Logic*

Further exploration opened up a new horizon in the issue of culturally different logic in western alphabetic languages and Chinese logographic language (Shen, 1989). This so-called new horizon was actually existent before the inception of contrastive rhetoric. It can be traced back to the beginning of the 20<sup>th</sup> century when imagism was found in poems by Ezra Pound, Amy Lowell and others. Pound first learned Japanese and then delved into Chinese characters and Chinese poems, from which his poetic imagism was inspired (Ayers, 2004).

Chinese poems highlight the use of the technique of *yi jing* 意境, of creating a picture in the mind, which accounts for the Chinese nonverbal, pictorial logic. Shen (1989) explains that it is a thinking process conducted largely in pictures and then transcribed into words. The picture described by the poet is taken over and developed by the reader. The imagination of the author and the imagination of the reader are thus overlapping (Shen, 1989).

In English writing, logic is conceptualized by the arrangement of propositional content and managing the systems of cohesion and coherence. To some extent, this conceptualization is culturally defined (Kaplan, 1988). In the United States, two traditions are reflected in the teaching of writing: one is syllogistic and the other is hierarchical (Wilkerson, 1986). Great value is placed on clarity and precision in the framework of a rigorously logical system (Kaplan, 1988).

### Cultural Schemata

A widely accepted definition of culture explains it as a set of rules and patterns shared by a given community (Goodenough, 1964). Cultural schemata refer to the ideological modes well-established in a cultural convention. People's thinking in that culture is to some extent prescribed by the ideological background knowledge. China's five-thousand-year history accumulated a number of such ideological modes that impact upon Chinese people's thinking and, accordingly, rhetoric (Lin, 1999).

#### *Historical Significance of Writing in Chinese Society*

In order to keep order among the highly diversified peoples on that vast land, ancient China's emperors needed some rules. Confucius met this need by providing rules for all walks of life in his Four Books and Five Classics. Those rules formulated a framework within which Chinese people dealt with their everyday life. There was no exception for writing. Since writing was so significant for personal development, specific and strict rules of Chinese writing were established. 八股文 *Ba gu wen* or "eight-legged essay" was a typical example to illustrate the rules of writing in Chinese history. Nowadays, students are not asked to write according to those rules anymore, but some simplified versions are still in use by some teachers of Chinese to teach Chinese composition. Some teachers of English also try to apply these rules to teach English composition since similarities between Chinese expository essays for college entrance exams and GRE (Graduate Record Examination) writing were found (Hu-chou, 2000).

#### *Collectivism and Harmony*

Confucianism was the school of philosophy that influenced or even dominated Chinese cultural conventions. It advocated collectivism and harmony among people, who were organized in a hierarchical relationship and took reciprocal obligations. Mutual respect was highly valued, and so was the willingness to participate in the making of communal harmony (Ames, 1991). Confucianism suggested that education should emphasize teaching by strict moral models (Young, 1994), which helped to consolidate the social hierarchy and communal harmony.

Oliver (1971) analyzed traditional Chinese culture and concluded:

Rhetoric in Chinese society thus came to be very much akin to sheer propriety. The utility which rhetoric was to serve was the maintenance of harmony. The way to this goal was through ceremony, etiquette, and methodology. There was a right way of doing things – a way that was established and accepted. When behavior conformed to this pattern of expectation, the individual's relations with his fellows would be predictable and dependable. Accordingly, the community would have a decent and decorous stability. (p.145)

### The Contrastive Rhetoric of Chinese vs. English

Three phenomena are under discussion in contrastive rhetoric: *audience*, *genre*, and *rhetorical structure*. Focusing on audience, two questions are investigated: who has the authority to write and who may be addressed. Genre concerns what may be discussed and in what form. Selection and arrangement of evidence is the focus of the third set of questions which address the issue of rhetorical structure (Kaplan, 2005).

#### *Audience*

Audience can also be explained as the participants of the activity of writing, including the author and the reader. The relationship between those two sides was claimed to be different in different cultures. Hinds (1988, p.143) introduces the concept of reader versus writer responsibility by suggesting that in Japanese, and probably in Chinese, the reader is generally more responsible for effective communication than the writer. Hinds (1988) also believes that English writers or speakers have the responsibility to make clear and well-organized statements, so if there is any breakdown in communication, it is “because the speaker/writer has not been clear enough, not because the listener/reader has not exerted enough effort in an attempt to understand” (p.143). Hinds believes that reader-responsibility is relevant to Chinese, which means the readers have to make inferences using their own knowledge. Snively (1999), in her research, confirmed the following ideas: First, the Chinese language is ideographic, pictorial, concrete, and consisting of separate characters with few grammatical markers, so the reader is expected to pull the words together in his own mind, make his own jumps, and rely on word order to show the connections (as cited in Taborek & Adamowski, 1984, p. 91). Second, the widespread use of metaphor means Chinese people are unwilling to talk about their feelings directly, but rather use metaphors to avoid directness. Indirectness is valued highly in Chinese writing: one shouldn't state one's opinion directly, as it is considered as rude, abrupt and lacking aesthetic qualities (Snively, 1999). Third, *pithy writing* requires the reader to read between the lines. Current Chinese writers will quite naturally follow that style. The technique of *yi jing* 意境, of creating a picture in the reader's mind, also leads to reader-responsibility. As in poetic or literary works in any language, the writer suggests; the reader also does some creative work, pulling together the words to create a mental picture (Snively, 1999).

#### *Genre*

Using data from ESL students' first languages (L1) has produced convincing evidence for the existence of different rhetorical patterns across languages. Much research has been done on expository writing. Kachru (1983), examining expository texts written in Hindi, discovered that topic unity is not a requirement of a paragraph; in Hindi there is no need for an explicit topic statement, and Hindi expository writing has a greater tolerance of digressions than English. A lot of research findings concern the differences between Chinese expository writing and its English counterpart. Chinese expositions often follow some well-established templates, among which are the classic eight-legged essay, four-part essay and three-part essay. Rhetorical devices are pervasive in Chinese expositions (Fagan & Cheong, 1987).

#### *Rhetorical Structure*

Kaplan (2005) indicated that different cultures and languages may use different rhetorical structures (i.e., different ways of dealing with evidence). Western scientific and technical discourse communities attach great importance to evidence and the arrangement of evidence in lab reports, working papers, reviews, grant proposals, technical reports, conference papers, journal articles, and so forth, while in China, for a long period of history, natural science as an imported subject was considered trivial and tricky. The preference “for multitudinous specifics...

is at odds with a Chinese literary tradition that prefers a densely selective and suggestive...style” (Li, 1996, p. 120).

### **Implications for Multicultural Education**

Culturally responsive pedagogy has been used to provide equal educational opportunities to indigenous youth for over 40 years (Castagno & Brayboy, 2008). In the 1980s and 1990s, there was an increasing number of racially and ethnically diverse students in U.S. schools, which brought the discussion of culturally responsive education into the mainstream. Pewewardy and Hammer (2003) noted that much was learned about student motivation, resistance, culture and cognition, language and cognition, and so on.

Ethnocentrism and ethnorelativism are two important concepts concerning culturally responsive pedagogy. Ethnocentrism assumes that the world view of one’s own culture is central to all reality, which may result in negative stereotyping of others’ languages and cultures. Ethnorelativism, on the other hand, is tolerant of differences in behavior and cultures. If a contrastive rhetoric study considers Anglo-American writing rhetoric as good and regards it as the standard, it will be criticized for being ethnocentric. Many early contrastive rhetoric studies were claimed to be so (Connor, 1996). In order to avoid stereotyping languages and cultures in our multicultural education, awareness and knowledge of the differences should be stressed, and perceptions of values in different cultures should be enhanced.

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## **Analysis of Haitian Parents' Perceptions of the Education of Their Children with Disabilities**

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**Abstract:** This study explored Haitian parents' perceptions of their children with disabilities. Findings revealed parents' perceptions were guided by two core concepts: coping mechanisms and locus of control. Parental involvement was strongly influenced by values, beliefs, customs, and conceptual knowledge that were closely aligned with culture and acculturation.

Research has demonstrated that parents' involvement in the educational process has been shown to positively impact their children's educational progress. For example, parental involvement has been shown to influence motivation to learn, improve consistent attendance patterns, and decrease drop out rates and behavior problems (Chispeels & Gonzalez, 2004; Ginsberg & Herman-Ginsberg, 2005). Additionally, parental involvement provides opportunities for parents to serve as role models for their children by reinforcing the skills that were taught in school (Hoover-Dempsey & Sandler, 1995). Parental involvement is defined as active and ongoing engagement in children's education by Flouri (2006). Therefore, it is important to examine parental involvement as a component of student achievement. However, parent-teacher interaction is a strong component of parental involvement because teachers are the primary transmitters of knowledge at school. It is also valuable for teachers to understand parental involvement so that they could effect change.

With respect to parents of children with disabilities specifically, The Individuals with Disabilities Education Act (IDEA) required that parents play a role in the decision-making process for the education of their children (Department of Education, n.d.). However, Harry (2002) found that many parents of children with disabilities initially got involved with the planning of their children's programs in preschool, but they tended to become disengaged over time. As their children progressed in their education, parents' involvement in school decreased, suggesting the possibility of changing perceptions of their roles (Harry, 2002). Consequently, additional knowledge is needed related to parental perceptions and involvement.

Furthermore, parents' culture and acculturation have been shown to strongly influence their views of education of their children with disabilities as well as their perceptions of their involvement in the educational process (Harry, 2002). Although there has been considerable increase in cultural and linguistic diversity in today's schools, most of the research on parental involvement has been conducted with traditional learners from non-minority backgrounds (Hasley, 2004). More research is needed to understand the involvement of parents from diverse cultures and communities.

Researchers have suggested that culturally and linguistically diverse (CLD) parents have a different perception of their roles in the education of their children (Chen, 2005; Diamond, Wang, & Gomez, 2004; Kato-Otani, 2004). Additionally, Harry (2001) found that culture, values, beliefs, and customs influenced parental involvement. This study focused on Haitian parents, a subgroup of CLD parents, and aimed to identify their perceptions on parental involvement with their children and whether their culture had an impact on their views.



This study intended to add to the knowledge base by investigating the perceptions of CLD Haitian parents who have children with disabilities. Students born of Haitian parents represented the third largest group of CLD students in the urban district where the study was done. Haitians, among other groups, are included in demographic data on Blacks. In the school district where the study was conducted, 33% of the population is classified as Black and 35% of blacks are classified as having a disability (Harry & Klingner, 2006). Limited research has been conducted on Haitian parental involvement with general education students, but none has been done specifically on those with disabilities (Stepick & Stepick, 2003). Researchers (e.g., Stepick & Stepick, 2003) have found that Haitians, like other immigrant groups, usually exhibit high academic potentials, but that this potential does not necessarily lead to a positive outcome. Specifically, the main research question for this study was: What are Haitian parents' perceptions of their children with disabilities? Research sub-questions included the following:

- a) What are Haitian parents' perceptions of the education their children are receiving?
- b) How do Haitian parents perceive their role in the education of their children with disabilities?
- c) How do Haitian parents' perceptions of their children's disability influence their relationship with their children and their involvement with the school?
- d) What do Haitian parents see as supports and barriers to their involvement in their children's education?

## **Method**

### *Research Design*

Open-ended questions (Creswell, 2003) in a semi-structured interview format were used. This type of interview process allowed the researcher to delve into participants' emotions and feelings regarding the phenomena studied (Strauss & Corbin, 1998). The interviews also focused on how parents perceived their children with disabilities, the education the children were receiving, and ways in which the disability had affected their relationship with their children.

A qualitative research methodology using Advocacy/Participatory Phenomenology was used to explore answers to the research questions. This type of research can be easily translated into an action plan that effects change in the lives of the participants and their community (Creswell, 2003).

The interview questions were developed based on a research report by Wathum-Ocama and Rose (2002) of Hmong immigrant parents' participation in their deaf children's education and observations of Haitian parents during Individual Education Plan (IEP) meetings, parent workshops, and conferences. For this study, parents were asked to describe how they interact with their children with disabilities, how they explain the children's disabilities to family, friends, and others, and how they envisioned the future of their children with disabilities. Further, they were asked questions relating to their perceptions of the education their children were receiving, their involvement in their child's education, and of supports and barriers to their involvement. The questions were designed to elicit in-depth responses from the participants.

### *Participants*

For the data collection, 10 Haitian parents of children with disabilities were asked to participate in the study. Creswell (2003) suggested a sample 6 to 10 participants was appropriate for this type of qualitative study. The method used to identify participants was purposeful sampling. Participants were selected from students enrolled in Exceptional Student Education (ESE) programs in a large urban public school district. All of the parents had a least one child identified as having a mild to moderate disability. A pool of potential participants was generated

by identifying schools with a high concentration of Haitian parents. Letters were sent to parents who had students in a program for children with disabilities.

#### *Data Sources*

To increase internal validity of the data collected, triangulation was used. The information obtained from parents was compared to data from school records, parent and teacher meetings, and IEP meetings. Information from these sources provided insight into the parent-child relationship and the nature of parental involvement. The researcher secured parent permission to review district records and documents and attend any parent teacher meetings or IEP conferences that were held the course of the study, if feasible. These sources were used to corroborate information obtained from the parent interviews.

As an additional measure of corroborating information obtained during the interviews, Cumulative records (CUM) were reviewed by the researcher. The CUMs are maintained by all the public school system for every student. They follow students from kindergarten to 12th grade and contain confidential information on students as well as parental information relevant to students' educational needs. This review was done to verify the accuracy of information provided by parents on student placement, psychological evaluations, and medical records if applicable, report cards, test results, parent contact information, student progress as well as interventions conducted with students, whether academic or behavioral. Parental permission to review these records was included in the consent to participate in the study. These records gave insight into parent participation in the meetings to discuss student progress and needs.

#### *Data Analysis*

The interviews were analyzed using a coding process that sorts, compares, and prioritizes the data (Strauss & Corbin, 1998). *Open coding* was used to identify discrete aspects of events and interactions and assign codes to participants' responses. The researcher analyzed the data for key words used to describe a child with a disability and whether those words were referred to in different instances. In *axial coding*, the researcher was able to group the codes for instances (which incidentally are grounded in the data sentences) into conceptual categories. The constant comparative method was very instrumental in the analysis of the data. The open codes were then refined (conceptualized) into axial codes and, eventually, into higher-level axial codes. Finally, selective coding was used to identify core conceptual categories that could systematically be related to other categories and lead to the beginning of a theory about the phenomena that was studied and provide answers to the research questions (see Figure 1).

### **Results**

After organizing the data, open codes allowed the researcher to group similar responses into categories (see Figure 2). The category of home school collaboration included comments made by parents on their communication with the school, how well they understood the process initiated by the school to place their children into special education, their evaluation of the program and its impact on their children, the nature of their interaction with the school, their assessment of their needs, the assistance needed from the school, and their parental involvement. In the second category called parental concerns, the parents commented on their financial struggles, their perceptions of "normal" behavior and/or development, their hopes and dreams for those children, and the resulting reactions they experienced when confronted with the fact these children had disabilities along with their concerns about the future, and the problems they faced in their everyday lives with these children. The third category was called relationships/concerns. Parents discussed their relationships with God, how they perceived the children's interaction with siblings, the children's functioning within the larger community, the behaviors exhibited at

home and how parents coped with those behaviors, and to what factors they attributed the children's limited academic progress. This last category, called whose fault, grouped the comments parents made regarding the medical issues faced by their children, their perceptions of the causation of their children's disability, and who they felt was to blame.

Therefore, the axial codes yielded four concepts: home school collaboration, parental concerns and relationships/perceptions and whose fault. These eventually led to the formulation of two core concepts, which were coping mechanisms and locus of control. These two core concepts served as a lens through which parents navigated through the myriad of issues faced with children with disabilities. Parents' comments provided insight into their perceptions of their own role in these children's lives and whether they felt empowered to affect change in these children. These also identified parents' perceptions of their children and their ability to manage their current situations. The ability to manage a situation is a prerequisite to active participation (Ariza, 2000; Wathum-Ocama & Rose, 2002).

#### *Coping Mechanisms*

The parents' ability to cope was evident in how they communicated with the school, the level of their involvement, their ability to understand the process, and how they reacted to the problems faced with these children whether academic or behavioral. Their coping mechanisms were also evidenced by what they viewed as issues of concerns for the future. Parents who exhibited strong coping mechanisms were active participants in their children's education and exhibited a higher level of parental involvement both at school and at home. Although these parents are from a culture where parental involvement is not an expectation, they had assimilated sufficiently that they had internalized parental roles in this new culture and made adjustments to their behavior to the benefit of their children. They had become active participants in the educational program and had acculturated. Therefore, they needed less support from the school in the way of services and facilitated their children's access to a free appropriate public education. Parental coping mechanisms were also stronger in parents who identified fewer behavioral problems, fewer financial issues, more intensive and sustained interaction/communication with the school, and more positive concerns about the future. Although they realized that their children had difficulties, they attempted to cope with those challenges by becoming more active participants in the process.

#### *Locus of Control*

This conceptual theme revealed how parents perceived their locus of control. Parents with an internal locus of control relied on their faith in God as a source of strength to empower them, sought to establish positive relationships with peers, and actively sought ways to engage the children with family/friends and community. Those with an external locus of control believed it was the children's attitude as opposed to their aptitude that prevented them from being more successful academically, used their faith as a reason to be passive and give in because it was not up to them, blamed behavioral difficulties on the disability and did little to address them, stated children were disabled because of "something in the brain" and "not the school's fault". Therefore, they felt overwhelmed by the challenges inherent in dealing with a child with a disability. They discussed experiencing physical stress and were more concerned about the present and less positive about the future.

### **Conclusions**

The purpose of this study was to gain insight into perceptions of a group of Haitian parents with children with disabilities on: (a) the education their children were receiving, (b) their role in the educational process, (c) how their perceptions of the child affected their

relationship with the child and the school, and (d) the barriers/supports they encountered in their involvement. The research conducted thus far within the field of special education with minority parents has determined that these parents oftentimes held views of their children that were different from the mainstream culture. That is, minority parents' conception of disability was not as prescriptive as those of professionals because they evaluated their children's functional levels based on the ability to function within the home environment. These perceptions could also be influenced by parents' acculturation and assimilation into the mainstream culture (Harry, 1992a; Harry, Allen, & McClaughlin, 1995; Klein, 2008). This study is similar to previous findings regarding parents' conceptions of disability. Some parents stated that their children were independent at home and only had difficulties with reading and/or academic tasks. According to Harry (1992a), the school system's description of what constituted as cognitively impaired tended to be more narrowly based and more descriptive than parents' view. Therefore, parents' perceptions of their children with disabilities was not correlated with either medical or educational expert conclusions, but rather on parents' own rationale of what constituted as a disability and how it was manifested in the individual child.

The first research sub-question sought to identify parents' opinions of the education their children were receiving. Previous research indicated parents' perceptions of appropriate settings were different when they considered special education in general and when they took into consideration the individual needs of their own child (Klein, 2008; Palmer, Fuller, Arora, & Nelson, 2001). Parents did not feel confident or competent in challenging school personnel even when they did not agree with placement decisions (Harry, 1992b). The parents in this study seldom disagreed with placement.

With the second research question, the goal was to identify how parents of children with disabilities internalized their role in their children's education and to what extent they fulfilled those roles. Research had concluded that culture played a substantial role in parental involvement and that parents from minority backgrounds did not possess the knowledge necessary to be active participants in their children's education (Harry, 1992a; Harry et al., 1995; Harry, Rueda, & Kalyanpur, 1999; McWayne & Owsianik, 2004; Ouimette, Feldman, & Tung, 2004). This was also in line with the findings of this research. This research found parents would sometimes delegate responsibilities for supervision to siblings and would rely on siblings for the care of children with disabilities even if the siblings were younger. In a study conducted by Harry et al. (1995), it was determined that although parents were engaged initially in their children's education, this behavior faded over time and gave way to dissatisfaction and apathy. As children became older and more difficult to manage, parents' limited coping skills and needs were not addressed by the professionals instructing their children. Therefore, they disengaged from the school and became alienated. Parents in this study commented on the inability to communicate with school personnel and the limited resources available to them. They stated that they needed assistance in finding parental support groups and locating community resources to assist them with their children beyond school hours.

The third research sub-question analyzed how parents' perceptions of their child influenced their relationship with their child and their involvement with the school. Parents interviewed for this study identified the school as being a partner. The majority stated that the programs available to their children had been beneficial to them. In the majority of cases, parents had questions regarding placement and/or services, but had not voiced their concerns to school personnel. Only three parents indicated that they visited the school on a regular basis and requested meeting when necessary. Overall, these comments demonstrated that many parents did

not fully understand their role in the special education process. They were unable to function as advocates for their children. Again this points to cultural factors as well because, in Haitian culture, parents were not expected to question school personnel or to engage in their children's education to such a degree. Special education services tailored to address children's needs were not established as part of the general education services.

The fourth research sub-question investigated the supports and barriers to parental involvement. Among the barriers identified by parents in this study, language was the most prevalent. Wathum-Ocama and Rose (2002) found that language was one of the barriers preventing parents from participating in their children's education. This was the case in this study as well. However, the presence of a translator at meetings seemed to be an incidental event. The parents had translation only if one of the individuals scheduled to be at the meeting happened to speak the parents' language. Otherwise, no concerted effort was made to provide translation in the home language during meetings. The parents also failed to request the services of a translator and instead nodded agreement to all items discussed during meetings, even when they understood very little of what was occurring in the meetings. Again, this pointed to cultural factors. Haitians tended to be reluctant to voice their needs. They felt it was not their place to make any requests or demands of school personnel who were regarded as people professionals and not to be questioned.

### **Limitations**

Findings from the current study revealed that these parents of Haitian children with disabilities had various concerns that influenced their perceptions of these children as well as their perceptions of the education the children were receiving. However, these findings should be taken with caution in light of the size of the sample. A study with a larger group of parents might yield different results. The age range of the children participants might also have affected these results. Children had been in special education for 2 to 10 years or more based on their grade level at the time of placement and the grade at the time of the study.

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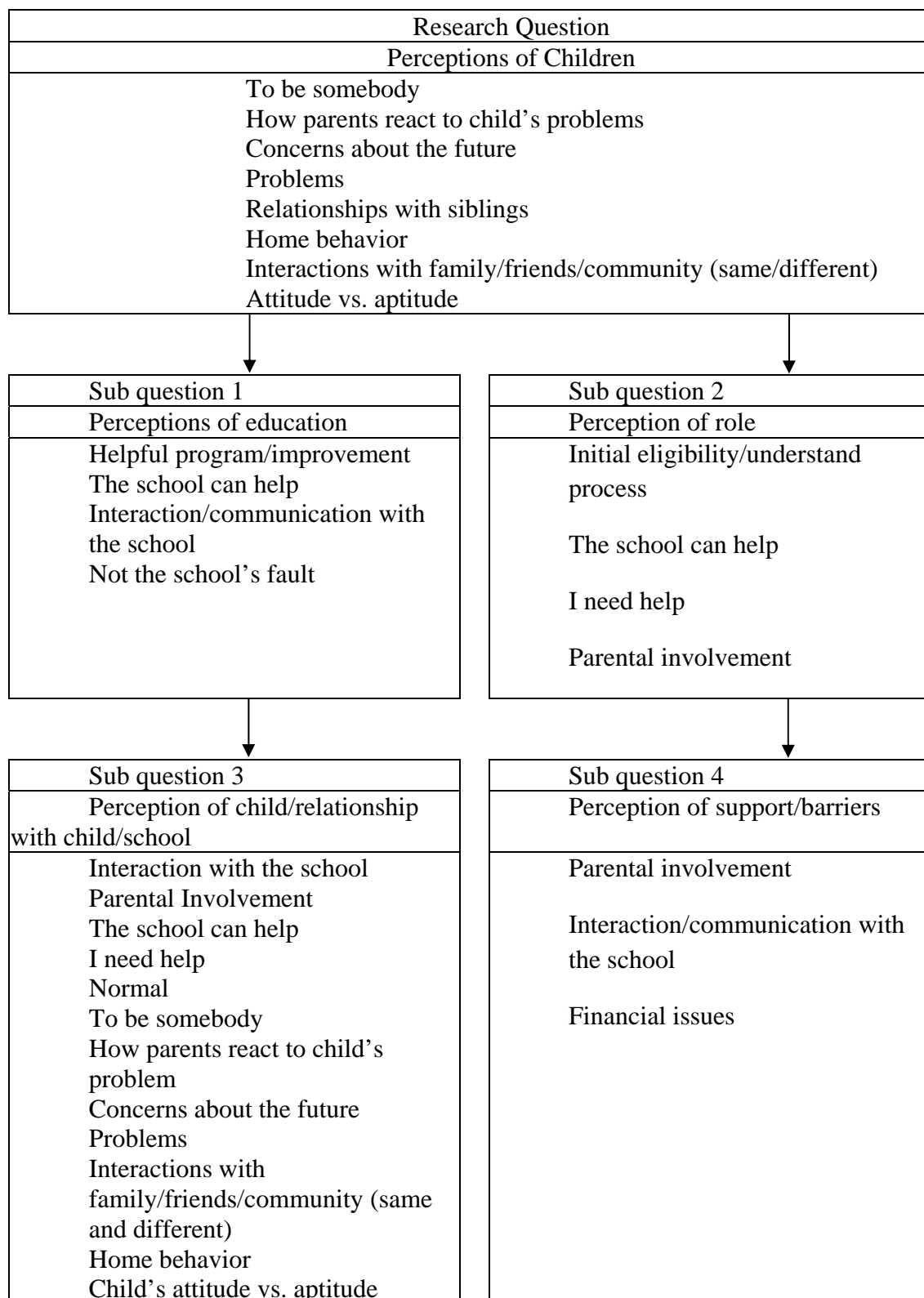


Figure 1. Grouping research questions by categories.

Organization of Data

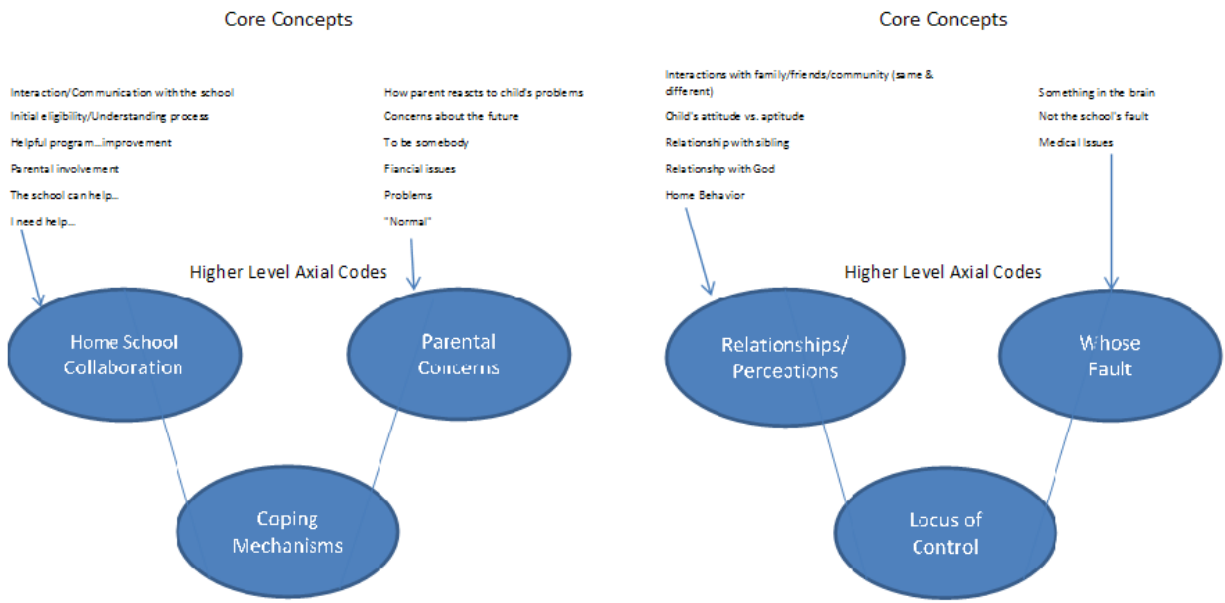


Figure 2. Organization of data into categories and core concepts.



## The Integrated Process of Engagement in Adult Learning

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**Abstract:** This paper explores the role of engagement in adult learning based on Illeris' three dimensional model of learning and Yang's holistic theory of knowledge and learning. Engagement and learning are integrated processes by which adult learners gain a deeper understanding and make meaning of the activities he or she is exposed to in a given learning environment.

In today's fast-paced environment, highly demanding jobs and personal responsibilities force adults to compress learning into their lives (Merriam, Caffarella, & Baumgartner, 2007). Learning is an integrated process that merges the cognitive, emotional, and social dimensions of being (Illeris, 2002). The ability of an individual to learn is an integral part of human life. Learning includes many activities, particularly for the adult learners, that both involve change, and are primarily concerned with the acquisition of habits, knowledge, and attitudes (Knowles, 1973). Learning is the interaction that occurs between the learner and their environment to help the learner become more capable of dealing adequately with their environment (Goffman, 1959).

Engagement is defined as a cognitive, emotional, and behavioral state directed toward identified outcomes (Shuck & Wollard, 2009). Adults who are engaged become emotionally connected and cognitively vigilant in the pursuit of their goals (Batista, Shuck, Gutierrez, & Baralt, 2008; Harter, Schmidt, & Hayes, 2002). Engagement is an emerging motivational variable commonly linked in studies of workplace learning to increased participation in learning-related activities (Czarnowsky, 2008). When viewed as synonymous with motivation, increased engagement in educational pursuits leads to improvements in learning and personal development which, in turn, leads to satisfaction, persistence, and growth (MacKay & Kuh, 1994).

Research on adult learning and engagement suggests that an adult's engagement in learning activities could increase persistence and involvement (Czarnowsky, 2008). Studies pertaining to pedagogical engagement could inform adult learning scholars and practitioners about the role of engagement in adult learning. Secondary education students who are engaged (i.e., motivated cognitively, emotionally, and behaviorally) were found to be more persistent in the face of barriers and have higher rates of graduation (Knowles, 1968). Adults also bring prior knowledge and experiences to their learning environments, but this is not taken into account by research on primary and secondary education.

Engagement seems to be a promising variable for adult educators to harness in both theory and practice but is rarely examined through the lens of adult learning theories. The purpose of this paper is to examine the role of engagement in adult learning using Illeris' (2003) three-dimensional model of learning and Yang's (2004) holistic theory of knowledge and learning. This paper is presented in four sections: (a) engagement theory, (b) adult learning theories (c) implications for theory and practice, and (d) conclusion.

### Engagement Theory

Khan's (1990) theory of personal engagement provides a unique context in which to understand why adults decide to engage in learning-oriented activities. Adult learners often engage in a variety of activities and situations in which they are presented opportunities to grow and develop (Wlodkowski, 2008). While engagement is a multi-faceted variable, adults express

themselves physically, cognitively and emotionally when personally involved in activities that engage them (Khan, 1990; Shuck & Wollard, in press). Three constructs are important to understanding why an adult may or may not engage in learning: (a) meaningfulness, (b) safety, and (c) availability (Kahn, 1990, 1992).

Meaningfulness is defined as a feeling that working towards an activity, such as a project, an assignment, or completing a degree program, is worthwhile (Kahn, 1990). Meaningfulness from this perspective is a reciprocal model whereby adults feel as if their involvement in a learning activity adds value and significance to their lives and promotes further engagement in learning. When adult learners do not feel that progress or involvement in a particular activity adds meaning or value to their lives, they may become confused, feel rejected, or discount their involvement by thinking that it was not that important anyway—all of which eventually lead to disengagement (Maslow, 1970).

Safety is defined as the ability to be one's preferred self without fearing "negative consequences to self-image, status, or career" (Kahn, 1990, p. 705). This theory posits that adults need to trust their environment, including their learning environments, in ways that allow them to be their authentic selves. Safety is often associated with a degree of emotionality; emotions are part of both the learning process and adults' everyday experiences (Dirkx, 2006; Reeve, 2001; Yorks & Kasl, 2002). The expression of safety in a learning context suggests deep psychological involvement, manifested behaviorally through engagement in a specific activity (Dirkx, 2006). Often focused on as a physical variable, an adult's perception of safety is just as much about fearing emotional and psychological harm (Fredrickson & Joiner, 2002; Kahn, 1990).

Availability is defined as having the physical, emotional, and psychological resources necessary for the completion of an activity (Kahn, 1990). For engagement to develop, adults must feel that they have or are able to obtain the tools to complete a project in a given learning context. Tangible availability of resources includes items such as supplies, sufficient budget, and manpower to complete a task (Harter et al., 2002; Wager & Harter, 2006); intangible availability of resources includes skill development (Czarnowsky, 2008) and the belief that a task can be completed (Britt, Castro, & Adler, 2005). Availability of resources necessary for completion of a given task frees an adult learner to focus on the task rather than worry about lack of resources.

In conclusion, adults who feel both that their involvement is meaningful and safe and that they have the resources to complete their task are more likely to be engaged. Furthermore, adults who feel this way are likely to express their engagement cognitively, emotionally, and behaviorally (Khan, 1990). Engagement is strongest when all three dimensions are used (Khan, 1990). Two adult learning theories that provide insight into the role of engagement in adult learning are discussed next.

### **Adult Learning Theories**

#### *Illeris' Three Dimensional Model of Learning*

Illeris' (2003) three-dimensional model of learning combines a variety of learning theories into one comprehensive framework. This model is based on three dimensions of learning: (a) cognitive learning, (b) emotional learning, and (c) social learning. The cognitive dimension of learning is defined as the learning content element, which is described as knowledge or skills that build up the learner's understanding and ability to construct meaning in his or her world (Illeris, 2003). The emotional dimension of learning is defined as the component, which encompasses mental energy, feelings, and motivation. It also provides a balance between affective and cognitive dimensions. The social dimension of learning is defined as the external interaction, which is reflected through participation, communication, and

cooperation. This dimension builds up the sociality of the learner in his or her community. According to this model, learning takes place when the individual demonstrates all three dimensions of learning.

Two processes of interaction occur within the context of the three learning dimensions: (a) external interactions between the learner and his or her social, cultural and material environment; and (b) internal psychological processes of acquisition and elaboration (Illeris, 2003). An individual's interaction process for comprehending the learning experience is divided into various categories (Illeris, 2002). The learner's interaction and learning process begins with the raw material. First, perception takes place when the surrounding world comes to the individual as a totally unmediated sense impression. Second, transmission occurs when someone else transmits specific sense messages. Third, experience occurs, presupposing a particular activity; it may include perception and transmission. Then, imitation occurs when the learner attempts to mimic someone else's actions. Finally, activity or participation occurs when the learner is engaged in a goal-directed activity (Merriam et al., 2007).

Altogether, human learning is a multifaceted process that encompasses three different dimensions at all times. Although cognitive, emotional, and social dimensions are separate, they may be viewed as a single learning event when combined. Both an external interaction between the learner and his or her social, cultural, and material environment and an internal psychological process of acquisition and elaboration must be active for learning to occur (Illeris, 2003).

#### *Yang's Holistic Theory of Knowledge and Learning*

Yang's (2004) holistic theory of knowledge and learning posits that knowledge consists of three inseparable components: explicit, implicit, and emancipatory. It presents an integrative theoretical framework to study the mechanisms of interaction among types of knowledge within learning (Gallagher, Rocco, & Landorf, 2007). It is important to analyze the active interactions among the three components in order to enhance the understanding of the adult learning process. The collective concepts of knowledge and learning play increasingly important roles in today's learning environments (Yang, 2003). Knowledge has become one of the crucial resources for wealth, and learning has become an integrative component of the workplace (Yang, 2003).

The holistic theory describes knowledge as three different and interconnected learning facets for being able to obtain knowledge through personal experience and emotional affection (Yang, 2004). First, the explicit knowledge refers to "clear and certain mental apprehension that is transmittable in [a] formal and systematic format" (Yang, 2003, pg. 108). Explicit knowledge is expressed by the recall of information that is tied to a context. Second, implicit knowledge is generated from one's behavior, actions, and accumulated experiences (Yang, 2003). Implicit knowledge is expressed through prior behavior that is improved without having to recall from the task before. Finally, emancipatory knowledge deals with understanding based on emotional affection (Yang, 2003). Although the facets are seen as different parts of understanding knowledge, each facet necessarily supports the others (Yang, 2004).

Yang's (2003) holistic theory of knowledge and learning suggests that learning is an individual activity as well as a social event, such as group learning. Group learning is a process of change within the dimensions of collective belief relating to explicit knowledge; social norms as it relates to implicit knowledge; and shared values as it ties to emancipatory knowledge. For instance, an individual acquiring new knowledge in the classroom is going through a process of change in thought. At the same time, social norms and shared values, such as respect for others, are taken into consideration. The role of engagement in adult learning consequently entails a

holistic approach to learning. This approach is sensitive to the learner's desire to learn by addressing what is most fundamental in learning.

### **Engagement and Adult Learning in Theory and Practice**

Adult learning can lead to an extensive, enriching development for individuals (Illeris, 2003; Wlodkowski, 2008). Adult learners learn best when their involvement with activities are expressed physically, cognitively, and emotionally. An engaged learner feels their involvement in an activity brings significance to their lives while feeling emotionally secure. Moreover, the adult learner should feel safe having all the resources necessary to learn to avoid disengagement. In order for cognitive, emotional, and social development to occur, the adult learner must have a positive, motivational attitude, and the learning activity must meet the expectations of the learner (Illeris, 2003a). Using Illeris' three dimensional model of learning and Yang's holistic theory of knowledge and learning to examine the role of engagement in adult learning provides a new lens through which to better understand an adult learners' motivation to learn. First, Illeris' model merges the cognitive, emotional, and social dimensions of learning into an integrated process (Illeris, 2002). Second, Yang's holistic theory of knowledge and learning integrates the explicit, implicit, and emancipatory knowledge into inseparable components of learning. As shown in Figure 1, engagement plays a stronger role when all three dimensions of learning are in place.

Additionally, the combination of Illeris' three dimensions of learning supports the development of engaged learning as an effective process, resulting in increased retention (Wlodkowski, 2008). Within Yang's holistic theory of knowledge, engagement is an act whereby the learner actively uses the information learned. The information needs to be clear and explicit to the learner. To ensure that knowledge transfers, it must be viewed from the learner's perspective and understood through their experience. Further, knowledge must be accessible to the learner (Kahn, 1990) and in a way that the learner both understands the information provided and sees the significance of the information to his or her particular life. This emancipatory approach is value driven from the adult learners' unique experience. Once the learner is engaged, he or she uses information to construct his or her own knowledge, or truth. Yang's holistic theory of knowledge and learning engages individuals in adult learning by providing an understanding of various knowledge facets. Knowledge as it relates to engagement can only be acquired through experiences and direct engagement in practice (Yang, 2003).

Learning has no meaning without engagement (Wlodkowski, 2008). The role of engagement in adult learning is important to the retention of information as well as the transfer of knowledge. Educators need to concentrate time and effort to construct meaning for what individuals are learning; otherwise, individuals may not be engaged or motivated. For instance, an instructional designer may use Illeris' three dimensional model and Yang's holistic theory of knowledge and learning in order to engage the learners in a learning activity. During the development process of an instruction, the designer may use implicit knowledge by incorporating activities in the instruction. Implicit knowledge helps learners create schemes of interrelated concepts to be transferred across situations. During the activity, the instructor may ask the learners to recall specific situations in the past that could be useful to remember information that the learners will be using during the activity. In addition, learners may create these schemes by using explicit knowledge. Explicit knowledge ties information to learners' direct experiences and/or involvement. The learners will most likely recall past experiences or involvement in situations similar to the one they are currently experiencing during the activity. Finally, the activity may involve emancipatory knowledge to assign individual sentiments that the individual has already attached to certain objects. If the experiences recalled are positive or

negative, the learner will attach positive or negative emotions to the activity. Furthermore, through this process, individuals undergo cognitive, emotional, and social involvement. First, the cognitive dimension of learning engages adult learners by making meaning of what the learner is exposed to during the activity. Simultaneously, the emotional dimension makes meaning through feelings experienced during the activity. Last, the social dimension engages individuals through participation, communication, and cooperation with other learners. The learner will be able to make meaning and add value to the learning process through activities and/or instructions designed with these components in mind.

### **Conclusion**

Engagement plays an important role in assisting adult learners to make meaning of what they are learning. The examples provided in this paper illustrate the influence of Illeris' three-dimensional model of learning and Yang's holistic theory of knowledge and learning on adults' experience of learning. When combined, the resulting framework provides a powerful lens in which to view adult learning. These theories are powerful tools for instructors when shaping an instructional design. Many cognitive learning strategies emphasize how learners reflect on the material, recite, and review the information learned in order to store it in their long-term memory (Slavin, 2009). Yang's holistic theory of knowledge and learning allows learners to create schemes (implicit knowledge) that help them recall previous information (explicit knowledge) and attach sentiments (emancipatory knowledge) to the information. This process eases the storing of information in the learners' long-term memory. Additionally, when learners go through the process of recalling information, they are engaged cognitively by thinking back to many experiences in the past. The recollection of experiences also engages the learner emotionally by thinking whether the experience(s) was positive or negative. Finally, recalling information engages the learners socially when the learner is asked to share the experience(s) with the instructor and other learners.

In summary, adult learners should integrate Illeris' learning dimensions and Yang's knowledge facets presented in this paper to achieve a higher level of engagement during learning activities. Combining both theories allows instructors to engage their learners through various avenues, resulting in a more productive and efficient instruction. Subsequently, adult learners will both encounter a more meaningful and valuable learning experience and increase the chances of remembering the information at a later time. Knowledge is power and integrating learning dimensions eases the process of obtaining knowledge.

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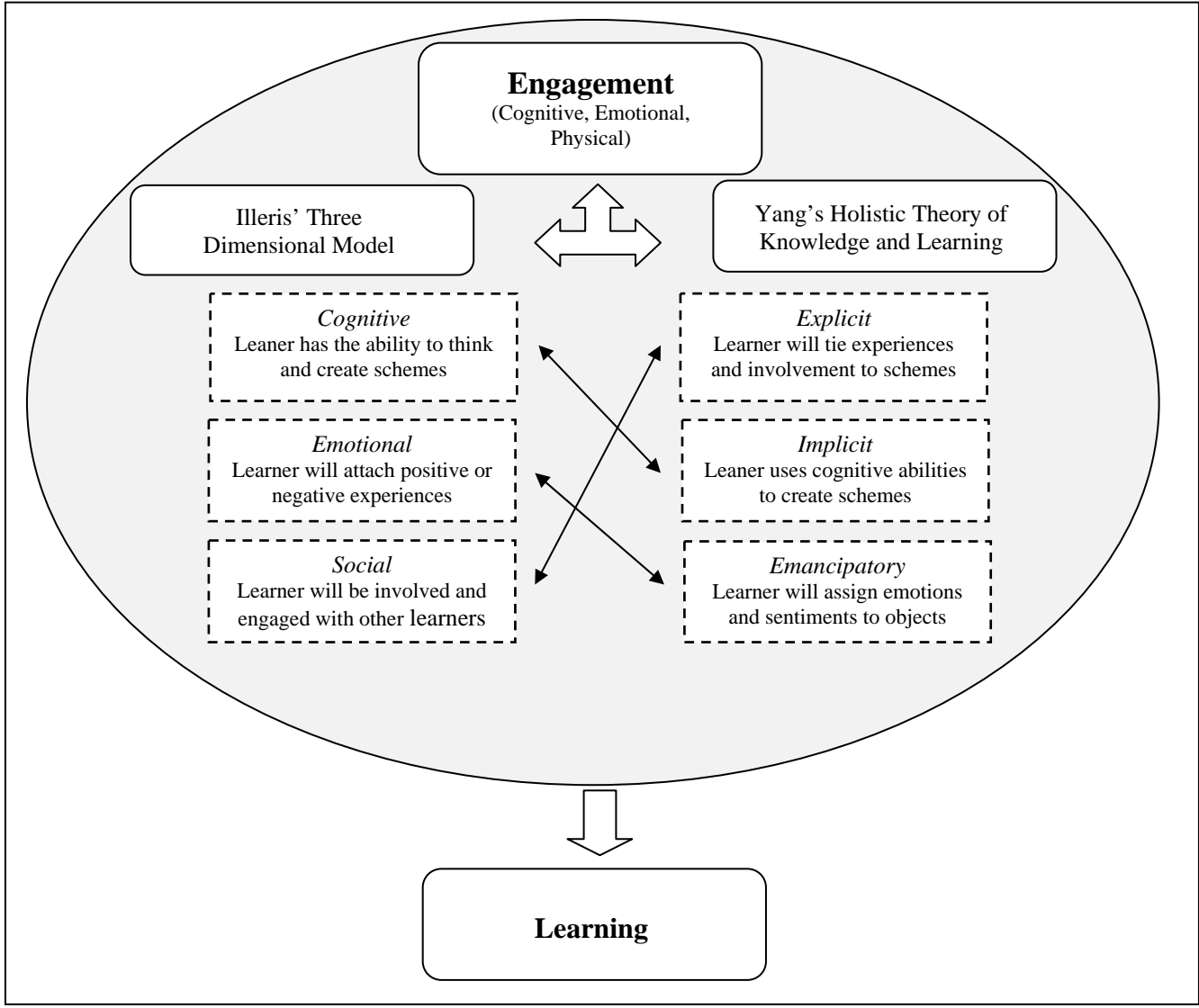


Figure 1. Relationship between the integrated process of engagement and adult learning based on Illeris' three dimensional model & Yang's holistic theory of knowledge and learning.

## **Class in Classrooms: The Challenges Public Librarians Face as Border Crossing Educators**

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**Abstract:** In border crossing pedagogy, educators help students negotiate identity and cultural issues. Public librarians help special populations of patrons improve on class issues through education. This study explored the issues public librarians face when they teach and border cross across social classes.

The structure of capitalism affects schooling (Bowles & Gintis, 1976). Social class leads to social capital access that affects student learning and life outcomes (Coleman, 1988). Uneven capital distribution across schools and communities creates savage inequalities (Kozol, 1992). Culturally biased educational content, materials, and processes favor students from higher class backgrounds (Berliner & Biddle, 1995). Cultures of poverty hinder lower class children (Lewis, 1961).

Giroux (1992) suggests that teachers can make a difference by crossing between the borders of culture and identity that divide students. This means using pedagogy to create a classroom that becomes a border space where students can negotiate the meaning of their culture, identity, and the narratives that affect their lives. Teachers can communicate, act, and perform in a way that counters the inequalities in education caused by the extremes of neoliberalism, the attack on public spaces, and the biased consequences of a market mentality (Giroux, 1992, 1993).

The effect of social class on social capital and equality goes beyond the classroom (Coleman, 1988). Border crossing needs to be promoted by other cultural workers in society who educate outside the schools (Giroux, 1992). The library is an institution where students can learn beyond the classroom (Cabrera & Colosi, 2009), and public library educators have as their mission the need to help special populations of patrons who can be affected by issues of class, culture, and identity (Panz, 1989). The problem is that there is little work on how public librarians can be border crossers in terms of negotiating social class in the classrooms of their institutions in which they teach.

The purpose of study was to gain a better understanding of public librarians as border crossers and the library as a border space in order to add to the literature on public library instruction, class issues, and border crossing. These research questions were examined: How do librarian educators perceive border pedagogy? What are the challenges public librarians face as they shift from teaching students in one social class to another? What strategies can improve their practice?

Public librarians act as border crossers in terms of social class and often have to modulate their role to different audiences. First, this paper shows that the nature of special populations in the library is different than those in traditional classrooms and that the social class has been constructed differently in the library. Then, border crossing is suggested as a way to make the focus on special populations and social class issues work better. Finally, the paper outlines the results of a qualitative study on the way librarian educators face these issues in their courses. The



participating librarian educators used observation, journal writing, and interviews to explore the way they teach students of different social classes in three class sessions.

### **Border Crossing**

Border crossing deals with the cultural work in spaces between high and popular culture, institutions and the street, and the private and the public. Neoliberalism spreads its ideology, power, and influence diminishing all things social, public, and collective. The performative nature of pedagogy can challenge the problems created by these conditions (Giroux, 2001). Social and cultural codes organize and divide people. Students and teachers have to fight master narratives that promote race and class inequality and other forms of injustice. These conflicts can transform or disfigure identities (Giroux, 1991). Divisions between people create borders between them (Giroux, 1992).

Existing borders can be challenged and redefined. Pedagogical conditions must be created to enable students to make border crossings (Giroux, 1992). Teachers can create a border space where these codes, divisions, narratives, and identities can be confronted, renegotiated, and transformed. Depending on the level of schooling, a teacher can help students explore the nature of these issues or even help them create a counter discourse (Giroux, 1991). Border crossing pedagogy can be considered part of a radical and critical pedagogical discourse that shares much with feminist, antiracist, and postmodern ideas (Jackson, 1997). Border crossing confronts a wide variety of issues including the cultural and social conflicts social class divisions create (Giroux, 1993). This study uses the border crossing perspective to perceive librarians as cultural workers who can teach people divided by social class ways to cross cultures and improve their social capital.

### **The Nature of Special Populations**

Border crossing pedagogy is often discussed in terms of multicultural education, the traditional classroom, or the traditional primary, secondary, or college student in or outside the traditional school classroom. The idea of border crossing pedagogy is to help diverse populations of students cross the divisions and codes that keep them inside the border of their subjectivity (Giroux, 1992, 1993). The language and codes of library classrooms deal with special populations and not necessarily diverse or multicultural populations.

Services to special population groups are a part of library history. Special populations can be defined as groups of particular library users who have been targeted by the library because they are underserved or have not been served at all. A huge list of targeted groups for library service can be created. It depends on the context of the particular library in question and the community it serves to define what targeted group is a special population. The list in the past has included school children of various ages, parents and guardians of various types, senior citizens, the unemployed, the homeless, the homebound, and the economically, culturally, or linguistically disadvantaged to name a few (Panz, 1989). For library educators, the class can be a special population that the library deems needs to be served or a special population that has requested their service. School and library educators may disagree on who should be served.

### **Social Class**

Social class is constructed differently in American schools arguably creating a structure where students from different social classes are segregated, given different sets of opportunities, and given different expectations (Bowles & Gintis, 1976). Many factors in school can make the social class of students visible and easier to track and regiment (Coleman, 1988). Libraries do not exclusively serve a specific set of students in a structured compulsory or college level schooling regimen. Libraries serve the patron that contact the institution and they can be of all

ages, classes, races, and other characteristics. Library educators however can attract patrons to certain classes that can be a function of social class. Poor patrons for example maybe attracted to a resume writing class because they are unemployed and the culture of poverty has kept them from learning this skill elsewhere. Because different classes attract different patrons, the librarian educator may deal with a population of people in one social class in one class and a different social class group in another.

### **Border Crossing and Public Librarians**

Giroux (1993) notes how the economic system and forms of conservatism support race riots, a dangerous form of deregulation, and the promotion of private market competition in schools subjugating students to the inequity of the market. Educators can help author a sense of critical agency in their students and work with the community. Some teachers can border cross in an almost unconscious act (Giroux, 1993). Border crossing educators for example can be found in two year colleges as they move from one culture of discipline or profession such as English to another (Madden, 1999). Most teachers however have to be taught border crossing and need a historical understanding of conditions in order to act strategically to better lives (Giroux, 1993).

Schools for example can promote assimilationist codes to immigrant youth promoting an American national identity. Through other forms of literacy, texts, and social life students can learn another identity and cross borders (Lam, 2004). The library is one of the many places where learning across borders can occur beyond the school (Card-Gretencord et al., 2009). Libraries are a learning commons and a place of active research. Students think through content with a freedom there that the regimentation and scheduling of school classrooms can limit. Librarians can inform a curriculum allowing students to explore metacognition, make distinctions, understand systems and relationships, and explore perspectives (Cabrera & Colosi, 2009). No rallying cry however exists for librarian educators to become border crossers even though their institutions can attract students in and outside of schools. Border crossing improves the socio-economic agency of special populations.

### **Methodology**

A qualitative fieldwork study using participant observation, interviews, and investigative journals was conducted to gain meaningful understanding of the subject arguably using case study elements to develop descriptive themes. Data was organized in relation to border crossing and social class ideas. Questions were developed from the literature on border crossing, social capital, and the data collected. As part of a supervised fieldwork program for library science students done in the summer of 2009, the researcher served as a participant observer at the main branch of a major public library system in south Florida. The library is in an urban downtown area and serves a diverse community. The researcher was able to observe and participate in various events, take notes, and interview staffers at the library. The researcher prepared and participated in several classes conducted at the library that targeted special populations that varied across social classes. For this study, the researcher used the data collected from three classes to interview the two librarian educators who taught these classes and explore the topic of social class. They were asked the main research questions: How do librarian educators perceive border pedagogy? What are the challenges public librarians face as they shift from teaching students in one social class to another? What strategies can improve their practice?

Further questions and themes for the interview sessions were developed by comparing and contrasting the notes taken, the journals written, and the observations of the participant researcher and the two librarian educators. The challenges for librarian educators in relation to class were summarized from these findings and solutions using border crossing were discussed.

The nature of the fieldwork made the participant researcher arguably serve as a third librarian educator in a sense.

The main librarian educators were Jorge Granada, a Hispanic male, and Jaycee Ebony, an African American female. Both were middle class. The researcher was a working class Hispanic male. The researcher and the librarian educators all had graduate level education and teaching experience but only the librarian educators had several years of experience at a public library. Because of privacy and other professional issues at the institution, patrons could not be directly queried by the researcher about their social class or other matters pertaining to their background. The collective social class of the classroom population of each class was determined by the librarians due to their familiarity with the patrons, inferred through the gatekeeping mechanisms that allowed participants to attend a class, estimated through observation, and in some cases ascertained from the self labeling of participants. The library uses detailed statistics about who historically attends these classes that also helped in determining class characteristics.

The first class was a resume and job search class with 10 students who were mostly minority males over 25. Students were categorized as lower class in part because many of the students were unemployed and homeless. The second class focused on database searches and was attended by about 10 African American, Hispanic, and Anglo professional women determined to be middle class in part because the course was limited to certain county employees. The final class was a presentation on the services of the Urban Affairs library department requested by several members of a foreign consulate. The professional and political status of this population of mostly Hispanic males and females was upper class in nature.

### **Results**

Research question results show public librarians acting as boundary crossers in social class terms and often having to modulate their role to different audiences. Librarians perceived border pedagogy as an innate part of their practice and saw various work related challenges and many possible improvement strategies. Discussion yielded further insights and themes. Reactions to the research questions revealed the complexity of library instruction. When asked how librarian educators perceived border pedagogy, Jaycee and Jorge instantly grasped how it applied to their work. The librarians saw themselves as professionals trying to uplift their patrons and translate ideas across the cultural differences of their students. The discussion centered on getting patrons employed or maintaining their employment so that they could rise above poverty. The librarians saw a need to have people in the upper levels of society understand what the library was doing for the community. The researcher cited specific examples of how the librarians seemed to cross borders and the librarians concurred with these interpretations. Jaycee for example would use role play to discuss how different people across the social spectrum would write a resume in order to give lower class students options and cultural understanding. The researcher showed a lower class patron how the higher class looked at resumes not as individual documents but part of a larger self marketing scheme. Jorge used research tools to show students of all classes how to critically analyze information as active learners.

Questioning the challenges public librarians face as they shift from teaching students in one social class to another brought out many issues. Preparation and presentation time was limited. Support for some classes was uncertain. Jaycee worried lack of funding would end the resume writing class. Jorge worried about keeping upper class patrons interested in requesting more classes since exposure to the library made it possible that they could support the library in other ways.

Themes of protocol, status, performance, and pedagogy emerged revealing how the librarian educators had to modulate their roles as border crossers to different audiences. Protocol affected communication and recognition. Jorge for example spent time understanding the proper way to address a member of a foreign consulate. The researcher had to be told how not to recognize a person when it came to lower class students. “You can not tell a homeless person he is homeless.” The researcher was told to avoid embarrassing patrons. With the middle class county employees, it was a matter of simply learning their names and the department they worked in. The perceived status of the librarian changed from population to population. The higher class students expressed awe over the work of the library and the librarian educators. The middle class were awed by the work of the library but had to understand who was a librarian. In the lower class classroom, a patron asked the librarian to quiet down. Jaycee took it as disrespect although her perspective could be biased by previous bad experiences with the same patron.

The performance of the library educators differed across the different classes in terms of preparation and presentation. Upper class students were put in a special private office and Jorge dressed up for the occasion. Middle class students were taught in a more modest area of the library. Lower class students were taught in a common area of the library where security and other patrons could easily keep an eye on them. For Jorge, the presentation to the higher class foreign diplomats was an important border crossing moment because this exchange with a foreign culture could not only affect how these patrons looked at their home country libraries but also their support for cultural exchange programs at Jorge’s library. In preparing for classes, Jaycee explained how much all the materials had to fit with the codes of the organization from graphics to language to content. Part of preparation was the marketing of classes to certain groups especially county employees. Jorge noted that this was done in a certain way so as to not upset other departments or groups in the county. Jaycee played devil’s advocate debating the politics of marketing because many groups and departments are in communities divided by class and race.

The nature of pedagogy changed with social class. The higher the social class, the more dialogical the teaching was. The lower the social class, the more didactic and simple the teaching approach was. Classes for the poor emphasized the practical. This was partly due to how certain special population groups can request service. Jorge was not completely sure what the higher class diplomats wanted and more importantly what they did not know they wanted. For Jaycee and Jorge, dealing with the middle class county employees was easier in the sense that the work of their department guided what they could offer them. With lower class patrons, the needs were obvious and backed by library research. It was a matter of conveying information.

Strategies to improve practice centered on the language and codes of the library environment. As part of community outreach work, Jorge, Jaycee, and the researcher had a historic and political understanding of their institution and surroundings, but the nature of instruction did not lend itself to the more radical nature of border crossing pedagogy. A resume writing class could improve agency and political understanding but it did not lead to a questioning of neoliberalism or other larger concepts for example. Learning communities, library administration, and library science programs could better promote border crossing to all librarians so they in turn can better promote it to patrons.

### **Conclusions and Implications**

Libraries are alternative border spaces. Librarians are compelling border crossers. More education on this pedagogy is needed for all librarians to deal with the codes, divisions, and other challenges of their institutions. Limitations and delimitations of the study suggest that

further research is needed. Further research could reveal how effective librarians are at crossing other borders. The library focused on was unique. Work should be done in other kinds of libraries. This study was mostly qualitative, observation, and interview based with a small group of educators. Further studies need to use other methods, approaches, and focus on a larger pool of subjects. Future research should focus more on the patron/student and not just educators. For this particular study, it can be concluded that the librarians had practiced border crossing in various ways but the context, support from their institution, how the librarians were perceived, and their educational background posed challenges for them. The implication is that border crossing across social class has to be a more explicit, promoted, and collective phenomenon.

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## Adults Learning Math Online: A Surprising Harmony

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**Abstract:** Adults returning to school face challenges including overcoming math anxiety. Many choose online courses as they balance life and work schedules. Online math courses therefore can be restructured to prevent math anxiety by catering to individual learning styles, providing tools that aid concept attainment, and using problem-based learning strategies.

Adults returning to school face many challenges from balancing life and work schedules, to overcoming age-old math anxiety (Hembree, 1990). Math anxiety is defined as “an inability by an otherwise intelligent person to cope with quantification” (Krantz, 1999, p. 100). Students who suffer with math anxiety start by doing poorly in mathematical courses, then avoiding such courses, and eventually choosing careers that require minimal math (Betz, 1978). At college level, math anxiety has many causes, including mathematics presented as fixed rules, passive classrooms, teaching styles that do not match learning styles, and students’ lack of confidence and inability to see the relevance of the mathematical topics (Trujillo & Hadfield, 1999). Students who are too shy to ask questions or view mathematics as only for men may also experience math anxiety (Trujillo & Hadfield, 1999). Betz (1978) found 61% to 68% of students feeling anxious over math tests with older women reporting higher levels than younger women. Although no definitive cure for math anxiety exists, there are ways of restructuring the classroom to prevent situations that foster anxiety (Sloan, Daane, & Giesen, 2002). To prevent math anxiety, information needs to be related to what adults already know. As Betz (1978) found, more positive views of the relevance of math were associated with lower math anxiety levels. Sloan et al. (2002) found that students had lower anxiety levels when strategies were geared to their learning styles. Students’ learning styles vary significantly with some learners preferring to relate to peers instead of the instructor who is viewed as an authority figure; some like to reflect deeply before doing anything; some prefer practical projects, and others opt for less people-interaction (Ally & Fahy, 2002). These learning styles can be supported by using learner-centered activities, encouraging student participation in the learning process, and making learning relevant to students’ experiences, all of which raise confidence and the sense of accomplishment (Migliette & Strange, 1998). Such learner-centered activities can make use of problem-based learning strategies where students learn by solving real-world problems while reflecting on the procedures they use and their experiences (Hmelo-Silver, 2004).

As adults balance the demands of work and life, many are opting for online courses (Illeris, 2004). An online course is defined as having at least 80% of the content delivered via the Internet (Allen & Seaman, 2008). Thus, a student can participate in the online course from any location that has Internet access. Benefits to taking courses online include being able to interact with the instructor or other students at times convenient to the student (Moisey, Neu, & Cleveland-Innes, 2008), having the tools to access research materials easily (Guri-Rosenblit, 2005), having access to a variety of instructional formats such as audio, video, web, or team collaboration solutions (Felix, 2008), and being able to complete assignments in a more relaxed environment (Illeris, 2004). Indeed, enrollments in online courses have risen dramatically in the

US, from 9.6% of the total college population in 2002 to 21.9% in 2007 (Allen & Seaman, 2008), of which 33.9% are adults over 25 years of age (Snyder, Dillow, & Hoffman, 2009).

Mathematical courses are also being offered online as mathematics is a required course for many degree programs. The purpose of this paper, therefore, is to show how an online math course can be structured to prevent or reduce math anxiety issues for adults by (a) catering to a variety of learning styles, (b) providing tools that aid in concept attainment, and (c) making mathematical procedures meaningful with problem-based learning strategies. A variety of online database articles, books and Internet resources were reviewed that spoke about online education, math education, math anxiety, learning styles, learner psychology, discussion groups, online tools, teaching methods, and best practices. Each section of the paper includes findings from studies done over the years and a description of online environment features that have been found to address the issues. The paper concludes with implications for faculty and the institutions offering online courses.

### **Catering To a Variety of Learning Styles**

The andragogical model describes adults as self-directed learners with experience they are willing to share and which is beneficial to others (Knowles, Holton, & Swanson, 1998). Such learners can take an active role in the online learning process (Palloff & Pratt, 1999). Providing a forum for communication and the building of community goes further to enhance learning outcomes (Palloff & Pratt, 2005). Online courses use the threaded discussion board as a major tool for interaction and communication. A threaded discussion board is an *asynchronous* interface for asking questions and getting answers (Markel, 2001). Asynchronous means that the participants do not need to be online at the same time. One can post a comment and another can respond when convenient. These discussion boards, therefore, provide opportunity for students to discuss solutions, get help from other answers even if they were too shy to pose the question, and update their responses as they get a clearer understanding. Students are able to build a collaborative learning environment in which they share intellectual, academic, and personal information (Cox, 2008). In the process of sharing and commenting on each others' postings, students are actively engaged in social interaction, reflection and re-constructing knowledge, the kind of actions depicted in Vygotsky's models of learning (Markel, 2001). Furthermore, students have time to reflect before answering questions, and, with the gender of the responder being unclear, students need not feel intimidated, nor hesitant lest someone recognize them (Markel, 2001). Such an environment will appeal to learners who prefer to relate to peers or who like to reflect before acting.

Adults susceptible to math anxiety and in need of scaffolding can bounce ideas off a peer before presenting them for all to see (Markel, 2001). The instructor should encourage active, meaningful dialogue between participants, reminding them to give examples from their experience. Discussions should elicit deeper thought, not just give the student the correct answer right away and the instructor should model correct postings with his/her responses. Feedback is important as students explore real-world problems and should be specific, noting what the student did well and what needs to be corrected. Collaborative groups should be kept small with about three to six participants (Scripture, 2008).

### **Providing Tools to Aid Concept Attainment**

For online math courses, students also have easy access to tools like Geometer's Sketchpad or ALEKS®. Geometer's Sketchpad is a dynamic geometry computer program that is used to construct, measure and manipulate shapes. Shapes can be rotated, enlarged, mirrored, and manually resized (Olive, 1998). In exploring shapes and their properties, students must be

consistent in how they label shapes, be able to troubleshoot when shapes do not turn out as expected, and discuss the geometrical operations in use (Forsythe 2007). Students using the Sketchpad did better than other students on the test, and their mathematical vocabulary also increased (Forsythe 2007). ALEKS® is another interactive computer program for performing practice exercises on many mathematical topics and uses adaptive questioning to give step-by-step instructions on how to work problems. It can also show the textbook page or get help as needed. Adults in remedial math programs experienced reduced anxiety levels and maintained higher math scores by using ALEKS® (Taylor, 2008). Students' perceptions of various concepts were significantly corrected with the Animation Tutor Project™ software that provides interactive experiments to supplement coursework in intermediate algebra (Reed, 2005). Tice (1997) asserts that “application and active experimentation are essential to true acquisition of knowledge” (p. 19). Such interactive learning is recommended for adult learners (Snyder, 2009) and will help prevent math anxiety by helping students grasp concepts more easily (Sloan et al., 2002).

The online environment also has features that simulate face-to-face interactions. With vSpace™ students can use “breakout rooms,” work on the whiteboard, take web tours, share applications, use polls, take quizzes, and share multimedia content during a synchronous session between other students or with the teacher (Felix, 2008). When used with students in a health science course, Elluminate was found to improve students' perceptions of their learning (Carbonaro et al., 2008). The various delivery formats are ideal for live lectures or one-on-one help. Sessions can be recorded so students are able to review repeatedly at their convenience. Adults plagued by math anxiety can privately build up their skills or recapture the missed moment in the lecture, so they need not fear looking foolish to others (Cox, 2008). The multimedia format available in online courses also facilitates describing and modeling real-world problems and supporting student exploration.

### **Making Mathematical Procedures Meaningful Using Problem-Based Learning Strategies**

Coben, O'Donoghue, and Fitzsimons (2002) emphasize the need for adults from all social contexts to learn mathematics that is applicable to their culture and can be used to help their communities. Indeed, using ethnomathematics, the mathematics curriculum built around the needs of the community including such topics as debt profile and production issues, resulted in an increase in adult student motivation leading to greater success in math (Coben et al., 2002). Also known as problem-based learning, mathematical problems based on real-world scenarios are used as exploration examples. Real-world scenario data may include difficult numbers to manipulate or non-specific information (Verhovsek & Striplin, 2003). Students work in teams to separate out the irrelevant information and then apply the relevant mathematical principles. Groups can meet in private online meeting rooms, yet have access to the full suite of products available in the course. Discussions between team members can be recorded so that they can review repeatedly as they progress through each problem. Working in this style promotes the self-acquisition of knowledge and makes use of a variety of learning strategies, while encouraging teamwork and building problem-solving abilities (Verhovsek & Striplin, 2003).

Problem-based learning is ideal for those adults who need to see the relevance of what they are learning. Those who need short-term satisfaction (Knowles et al., 1998) will be learning information they can use immediately. In solving real-world problems adults are starting with information that is relevant to them; they can build on prior knowledge and use their own learning styles (Kinney & Robertson, 2003; Verhovsek & Striplin, 2003). Students get the



scaffolding they need, and information is based on prior knowledge that is restructured through discussions (Markel, 2001). Presenting these problems in the discussion forums means the students will be writing about, or verbalizing, what they have learned - a necessary step in the learning process as implicit knowledge becomes explicit knowledge (Yang, 2003). *Implicit knowledge* refers to the behaviors exhibited as one learns a concept by exploration or rote. *Explicit knowledge* occurs when knowledge is transformed from a behavioral reaction to a cognitive revelation that can be used to synthesize the knowledge further for application to other scenarios (Yang, 2003).

With the added complexity of real-world problems care must be taken not to confuse the learner more (Scripture, 2008). So, instructions for assignments should be specific with clear expectations noted. Problems should be well thought out, realistic, and challenging. Instructors should allow room in the problem descriptions for students to identify their own information and methods, but give clear guidelines about what is to be accomplished. Assignments should also be interactive with ample opportunity to use computer tools to explore during the formative stage when students are getting used to the concept. Skills-building programs can be used later on to fine-tune understanding of the concepts (Taylor, 2008).

For those learners with test anxiety, other formats of assessments can be used, such as letting the user submit answers to the *dropbox* instead of doing a timed assessment. A dropbox is a private area on the web to which only the student and instructor have access. Alternatively the assessment could be an exploration activity where computer tools are used (Scripture, 2008). Detailed feedback should be provided promptly so that students do not go down the wrong path for too long. Such effective feedback will help students become better self-directed learners (Kinney & Robertson, 2003). Assessments should have clear rubrics, and feedback can be provided promptly using the grade book. Lecture material should be provided in manageable chunks that are related to the problems they will be solving.

In closing, math anxiety needs to be addressed in online courses to accommodate the increase in enrollments. Prevention is better than cure, so the first step is to provide an environment in which adults are so engaged that they are more focused on learning math than remembering past negative experiences (Sloan et al., 2002). Although online can provide a comfortable forum for adults to learn successfully without fear, much of the burden of this success lies with the faculty. As such, it is imperative that research continues to support findings and create methods that will make the online facilitation process an easy one. Many still believe the myth that an excellent, traditional, face-to-face instructor can easily transition this success to the online environment (Molnar & Armentano, 2006). Online facilitation has its own unique rules, challenges, and rewards. As such, faculty training needs to be top priority for any institution that hopes to succeed with online learning. Bowling Green University recognized the need for faculty to be trained and launched a quality online training program that addresses “technical and pedagogical aspects of teaching online” (Molnar & Armentano, 2006). Molnar and Armentano (2006) also shared that

Several faculty who had no experience in an online environment, and who were skeptical prior to the training have now become strong advocates and leaders for distance education. In addition, many have commented that taking this seminar produced some carry-over effects in their face-to-face courses. (p. 1)

While some may still not have access to online, the restructuring of math courses will ensure that those who do have access will enjoy an enriching, successful experience as they work on math online - a surprising harmony.

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## Two Educators' Experiences of Double Dose Reading Classes

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**Abstract:** The purpose of this qualitative study was to gain knowledge of the phenomenon of double dose reading classes. A reading coach and a reading teacher were interviewed. Data revealed teachers navigate a complicated set of negotiations in order to deliver quality instruction while simultaneously satisfying mandated requirements from supervisors.

No Child Left Behind (NCLB) and the Race to the Top Fund have put extraordinary emphasis on students' test performance as an indicator of improvement and teacher effectiveness. Nowhere is this pressure felt more than in urban schools that are "failing." These schools are often faced with a myriad of problems each day that their affluent suburban counterparts need not overcome, such as the depressing effects of poverty, high student mobility, crumbling buildings, high crime rates, teacher shortages, high teacher to student ratios, inexperienced teachers, high teacher turnover, and a drill and test curriculum (Brophy, 1990; Kozol, 1991; Lippman, 1996; Moll, 1990). Research has shown that a disproportionate number of students who attend inner city schools, especially African American males, are placed in special education classes, enrolled in lower level and remedial academic courses, suffer more frequent and serious disciplinary actions, and have a higher dropout rate (Murrell, 1992).

With high stakes emphasis on reading tests, data driven instruction has become the educational fad du jour. Teachers are chronically subjected to meetings where their students' scores are analyzed question by question and teachers are interrogated as to how they plan on making their students achieve "proficiency." Many schools require teachers to not only teach to the test, but to follow a curriculum based on Florida Comprehensive Assessment Test (FCAT) Benchmarks as opposed to the Sunshine State Standards, which are the standards set by the state legislature.

Many schools are embracing scripted curricula in the forms of instructional pacing guides and weekly benchmarks. Although academic freedom is protected for many teachers, few are willing to openly challenge their administrators and face retaliation. Teachers who do not follow the prescribed curriculum or those whose students fail standardized reading tests face an impressive array of punishments such as being assigned undesirable classes, losing supplements, and being passed over for department chairpersonships. With an impressive array of punishments available for schools and teachers whose students fail standardized reading tests, it is reasonable to wonder why any teacher would want to put him/herself in such an unenviable position. The position that students occupy is no more enviable.

The picture painted for reading classes is not always a pretty one. Teachers who are forced to adhere to mandated curriculum and then face ramifications if their students do not show improvement and students who lose electives in order to take mandatory reading classes, are all in one room. With so much riding on the results and considering the tenuous position that reading teachers occupy, it is important to get a fuller and deeper understanding of the phenomena of reading classes.

### **Purpose of the Study**

The purpose of this study was to gain a greater knowledge of the phenomenon of double dose reading classes in South Florida secondary public schools.

### **Research Question**

What are the experiences of reading coaches and/or teachers in mandatory double dose secondary reading classes?

### **Method**

The participants in the study were two female educators in the Miami Dade School System. One was a reading coach at a Title I school who has over twenty years of experience in the school system as a social studies teacher, a reading teacher, a curriculum support specialist at the region and district levels, and as a reading coach. She was interviewed twice in her office at her school during school hours.

The other participant was a newly appointed reading teacher at a magnet school; she had over fifteen years of experience teaching elementary school. She was interviewed twice, both times in a conference room at Florida International University.

Consent was achieved by verbal agreement on the recorded interviews at the beginning of each interview. Participants were guaranteed that their names would not be used, that their places of employment would be referred to in the most general terms to protect their privacy and that any names they referenced in the interview would be blacked out on transcripts and given pseudonyms in the research report if they were used.

#### *Data Collection*

This ethnographic case study utilized interviews as the method for data collection. Ethnographies attempt to paint a picture of a cultural setting (Rubin & Rubin, 2005), and in this study, the culture of mandatory double dose reading classes were investigated.

The interviews were semi-structured with a tree and branch approach that allowed the researcher to touch upon four major categories within the phenomenon of double dose reading classes: reading curriculum, instructional techniques, student-teacher interactions and assessment.

Researchers must “guard against their own biases” (Bogdan & Biklen, 2007, p. 38). I started the research project clearly biased against reading classes. I felt that they did not show the promised effects on reading comprehension, that they were taught at too low a level to students, and that the reading selections were not culturally relevant and were not worthy of students sacrificing electives. Rubin and Rubin recommend that researchers use reflective practices to become cognizant of their own biases and then use this awareness to devise questions that offset these biases (2005). In order to deal with this, I consciously began my interviews on the mechanics of reading class curriculum and instruction as opposed to asking value questions. I let the interviewees work their way toward that area so I would minimize my influence on their answers.

This research study incorporated member checks in order to increase trustworthiness. Rubin and Rubin urge researchers to have interviewees examine reports so they can provide insights as to where the researchers have been accurate and to identify places where the writing may not accurately reflect their point of view (2005). One of the interviewees was given a fully transcribed and coded copy of her interview. She was allowed to read it and encouraged to make comments and corrections on the transcription and the coding. The other interviewee was contacted and in a face to face conversation reviewed the interview and the major codes derived from it. Peer review was conducted by discussing interview questions, raw data, transcription

codes and findings with colleagues enrolled in a qualitative research class at Florida International University.

The use of a research journal also increased trustworthiness. Maintaining self reflective journals is a common practice in qualitative research (Ortlipp, 2008). Ortlipp recommends that instead of trying to control for the values of the researcher through methodology, that researchers consciously acknowledge their values (Ortlipp, 2008). The research journal chronicled my theoretical orientations, my biases and my challenges while conducting the research.

#### *Data Analysis*

Interviews were transcribed and coded to look for major themes. Both interviews were recoded in reverse order. I utilized what Rubin and Rubin (2005) refer to as open coding, which is when a researcher codes the transcription as they read through it without any preconceived themes. Open coding is more effective in short projects where the researcher is familiar with the subject (Rubin & Rubin, 2005). Because my research project was short, with just two interviewees, I felt justified in choosing this approach.

Open coding is part of the grounded theory model which argues that coding, recognizing concepts and themes, and theory development are all an integrated process and that concepts and themes should arise from the data without the influence of literature (Rubin & Rubin, 2005). Because I conducted the interviews and coded them before doing a thorough literature review, I found my data analysis to fit the paradigm of the grounded theory model.

#### **Themes**

Analysis of data via coding revealed three themes: (a) teachers experienced intimidating visits by those charged with enforcing the scripted curriculum, (b) the scripted curriculum itself was problematic, and (c) teachers exercised resistance to the scripted curriculum.

#### *Intimidating Visits*

The concept of intimidation from supervisors was found in both interviews. The Reading Teacher described her experience with visitors whose main purpose was the enforcement of the curriculum:

...other people from the State have come in and said, your room must look like this, you must do this, you have got to have that, you can't do this. And because of those stipulations, whether they're valid or not, people feel pressured to do something that they're uncertain about because they don't have the depth of knowledge. (Reading Teacher)

The Reading Coach described how reading teachers are critiqued by supervisors for their performance:

They don't have the passion for it. They don't have the experience. But yet they have to do these things, and they're held accountable for it. They're brought down to the principal's office at the end of year. Oh, your students only had 19% gains, so you can't ever teach an advanced class. (Reading Coach)

The visits from supervisors and from people who are viewed to be above the teacher in the educational hierarchy such as reading coaches, department heads, region curriculum specialists, and state level curriculum specialists were not viewed as helpful or positive.

#### *Scripted Curriculum*

The supervisory visits discussed by both interviewees were focused on checking to see whether a mandated curriculum was being followed. The mandates were to carry out scripted curriculums and the dynamics of teaching a scripted curriculum was another major theme. The Reading Coach described her attitude toward scripted curricula from a teaching perspective:

Now that we have programs, we have to mold the student to fit the program, versus mold the program to fit the student. I want the program to fit the student. If I ever find myself not being a reading coach, put me back into a social studies classroom, because I just can't [teach reading].... I probably shouldn't be saying that. I believe that there are some students who are going to be successful with the program. I believe there are teachers who are going to be successful with the program. But knowing me and my personal philosophy and how I teach, I can't teach in a box. (Reading Coach)

The scripted curriculum appears to have taken the creativity out of teaching reading. It attempts to make all teachers and students fit into the program and differentiated instruction is not part of the scripted curriculum experience. The Reading Teacher also expressed problems with the scripted curriculum at her school using the scripted reading instructional program Jamestown Navigator:

The way I know which skill I am going to teach that week is because I have a pacing guide. So that's already been determined. All you have to do is read the pacing guide. It's idiot proof - it tells you what's the object, the page number, the book to use, it even tells you what questions to ask. You're just literally reading it, like a recipe - that's it.

She continued to describe the way her requests for data that confirmed the program's efficacy were rebuffed by supervisors:

Honestly, I don't like the program. I've asked, can I see the data that shows how using Jamestown Navigator does improve the FCAT scores? And when I ask for certain things those questions aren't really being answered. I just keep hearing, well it's mandated by the state. (Reading Teacher)

#### *Resistance to Scripted Curriculum*

The way teachers handle the scripted curriculum was also of great importance to both interviewees. The Reading Coach expressed dismay but also understanding that teachers had issues with teaching from a script:

Another teacher thought it was stupid. They didn't want to follow the script. They're bored. They wanted to be creative because it was all about the teacher, rather than the student needs. And they thought, this is below the students, it's embarrassing, the students won't want to do it. And it's not true. Students will do what their teacher pushes them to do when they respect the teacher. If the teacher does not respect the program, the students will not respect the program, and then everyone loses. (Reading Coach)

The Reading Teacher provided good insights to how teachers alter the program behind closed doors to help the students get the education they feel the students deserve:

RT: I was told to and I do put it up on my board every single day, because I like to write up on the board what today's lesson is. And I always put Jamestown at the end and I always say we didn't have a chance to do it.

Even though she used a curriculum she felt was most beneficial to her students, she described how her newness to the school made her keep her instructional choices covert:

I'm not really being that assertive about it because this is my first year there but that's what I've always done in the past. Once you have that seniority and you're in a school, people will respect you because they know at the end you're a good teacher and the kids are doing well. But it's a different situation for me now because I'm not permanent there. So I really do play by the rules, at least enough to cover myself so it looks like [I am following the rules].

I was told I needed to have pacing guides in my lesson plans because the district will be coming in and the district will be expecting to see those pacing guides. So yes, I photocopy them, I include them in my lesson plans and then I don't look at them. So yes I do cover myself...

### **Discussion**

The data reveal that reading classes entail a complicated set of negotiations for teachers in order to deliver quality instruction for their students while at the same time satisfying mandated requirements from people perceived as higher-ups.

The perception of visits by supervisory personnel as not welcome and intimidating is critical to examine. The physical appearance of a reading classroom became a topic discussed by both interviewees. Supervisors, whether local, district or state, all seemed to examine the décor of reading classrooms closely. Differences on learning styles and teaching styles appear to be ignored by supervisors who may be seeking to institute a one size fits all approach to teachers.

The décor of rooms may be so important because it is easy to check. Anyone can be given a checklist of what should be on walls and go into any room and check off the list. It makes supervision easy; however, having benchmarks written on walls is not linked to student achievement. It is important that students know why they are learning something but that is a far cry from knowing the state standards and reference numbers that correlate to it. The amount of energy that a teacher spends covering him/herself by writing lesson plans that are not intended to be adhered to and putting benchmarks on boards that have nothing to do with the lesson makes one wonder if that time could be better spent.

Perhaps the reason for the visits is to intimidate the teachers into embracing the scripted curriculum or at least to quell resistance to it. Is the resistance displayed by the Reading teacher warranted? Scripted instruction is more effective with lower order skills that are readily assessed with standardized tests (Sawyer, 2004). It is no wonder that scripted instruction is at the heart of reading classes designed to satisfy NCLB requirements.

Scripted curriculum was at the center of both the interviews and the Reading coach and the Reading teacher had different views of it. Teaching in a multicultural city such as Miami would make it difficult to find a scripted curriculum that could meet the needs of such a variety of students and the actions of the Reading Teacher are an attempt to save her urban students from a drill and test curriculum that is ubiquitous in urban schools (Brophy, 1990). Teachers should be able to construct lessons that will be engaging to their unique students; ergo, they need to have a curriculum that is flexible. Scripted lessons designed for mass distribution are unlikely to provide these opportunities (Ede, 2006). The actions of the Reading Teacher are consistent with the findings of Fullan, who describes the goal of curriculum change as not the continuous adhering to the specific innovation but a continuous commitment to student learning (2008).

### **Conclusions**

More fundamentally is that even the more prescriptive models that get short term results, do not last. The reason they do not last is that they make routines predictable while making teaching and learning boring. They do not last because they should not last. (Fullan, 2008, p. 118)

The experience of a reading teacher is a balancing act between the prescriptive curriculum that is dictated by superiors and the teacher's attempts to provide a quality education for his/her students. With a constant onslaught of supervisory visits, reading teachers must jump through hoops to prove they are adhering to edicts in order to survive professionally. Classroom visits are



not opportunities for collaborative learning but are chances to suffer reprimands for even how one's walls are decorated.

The results show the need to continue research into the experiences of reading teachers. As data driven instruction continues to dominate the political landscape more and more, prescriptive programs will be introduced across academia in all subjects. If research continues to show that these scripted curriculums stifle the ability of teachers to teach and force every student to learn in the same learning style, then the adherence to these programs should be vociferously questioned.

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## Communities of Practice and Learning in a Senior Living Environment

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**Abstract:** Adults participate in communities of practice (COP) in diverse environments. As the number of US citizens 55 years or older increases, so might the number residing in adult living environments. COP research would be valuable in such settings.

The United States (U.S.) Census Bureau, 2006-2008 American Community Survey measured the US population at 301,237,703 (2009). Of that, 18,210,745 (6.0%) were 55-59 years old and 70,662,158 (23.4%) were 55 years or older (2006-2008 ACS). Using the US Census 2000 Data, the US Administration on Aging (AOA) shows that the number of residents 65 years or older has increased steadily over the past century and grew from 3.1 million in 1990 to 35 million in 2000 (AOA 2000 Census Data, modified 2009). They estimate that in 2030, there will be 72.1 million residents 65 years or older (modified 2009). In 2008, 1.60 million (4.1%) residents 65 years or older lived in institutional settings such as nursing homes (Profile, 2010). An additional 2.4% lived in senior housing where at least one supportive service was available (Profile, 2010). Such settings offer rich ground for research in how learning occurs.

Learning is inherent in human nature, is ongoing and is an integral part of life (Wenger, 1998). Wenger (1998) describes learning as the ability to negotiate new meanings that can transform one's identity and ability to participate in the world by changing who one is, one's practices, and one's communities. Learning constitutes a trajectory of participation, as an individual begins and continues to learn, building personal histories in relation to histories of communities, and connects past and future in a process of individual and collective becoming. Learning also creates and bridges boundaries, as one's identity consists of multiple memberships often requiring reconciliation. Learning is a matter of social energy and power that thrives on identification. It is also a matter of engagement that depends on opportunities to contribute to communities of practice (COP) that we value and by which we feel valued. Such opportunities may be found in senior living environments, where residents can share stories, know-how, street smarts, or other information not commonly known. This tacit knowledge, or the knowledge that people have but cannot tell (Polyanyi, 1967), provides context for how to understand experiences. This can be helpful for residents new to the environment or who need information about common life-stage concerns such as aging, elderly care, or supporting grandchildren.

As the number of older citizens in the US increases, it is possible that the number of adults residing in senior living environments will increase. From a social learning perspective in adult education, studying COP in these settings may contribute to understanding why adults, particularly older adults, participate in COP for personal development and knowledge sharing. The purpose of this paper is to show that senior living environments are ideal settings for COP and to consider how COP might form in such living situations. First, I will discuss learning as a social and inherent activity. Second, I will discuss the concept of communities of practice. Last, I will discuss how a community of practice can enhance learning for seniors.

### Learning is Inherent and Social

Learning occurs individually and in groups as individuals actively engage new ideas, information, and behaviors and apply them in communities. Learning is a social activity,

(Merriam, Caffarella, & Baumgartner, 2007); it's the influences and experiences that gain, improve, or modify a learner's knowledge, skills, values, and worldviews. It occurs in four settings: formal (as in educational institutions), non-formal (typically short-term community-based learning), informal (everyday; spontaneous and unstructured; often tacit), and online (Merriam et al., 2007).

While studying different forms of apprenticeship, Lave and Wenger (1991) highlighted the importance of situated learning, which views learning as a process of social participation, more than just knowledge acquisition by individuals. They note that individuals join communities and learn at the periphery, moving toward full participation in the socio-cultural practices of the community as they become more competent and involved in the enterprises of the community. People need to be full participants in the world and in generating meaning; newcomers should not learn from talk as a substitute for legitimate peripheral participation, but should learn to talk as a key to legitimate peripheral participation (Lave & Wenger, 1991).

### **Communities of Practice**

Etienne Wenger, a pioneer in studying the concept of community of practice (COP), describes COP as a social theory of learning:

Engagement in social practice is the fundamental process by which we learn and so become who we are. The primary unit of analysis is neither the individual nor social institutions but rather the informal 'communities of practice' that people form as they pursue shared enterprises over time (Wenger, 1998, p. 1).

COP members share goals and interests, engage in shared practices, and reflect values through a common discourse (Lave & Wenger, 1991). Wenger (1998) discusses COP as the informal relations and understandings developed based on mutual engagement in joint enterprise and focuses on social identity, trajectories of participation (from newcomer to full member), and stresses that individuals encounter based on membership in different COP.

Research on COP tends to focus on professional development and knowledge management in business organizations and online communities, where the goals are often tangible and financial, such as increased profit or productivity. Studying COP based on personal development and knowledge sharing – as opposed to financial gain or promotion – can contribute to understanding why adults, particularly older adults, participate in COP.

Wenger (1998) describes three primary characteristics of COP. First is the domain, which brings the community together and gives it its identity. This implies commitment to the COP and a shared competence. If members do not interact and learn together, then they do not form a COP, even though they might have a lot in common, such as students who attend the same high school. On the other hand, COP can be informal, such as gangs or the Impressionists, who met to discuss their new style of painting. Second is the community, which is a group of people who share the domain and engage in relationships to address problems and share knowledge. Third is the practice, which creates a shared repertoire of knowledge, methods, tools, stories, and ways of responding to problems that members share and develop together. This shared practice requires time and interaction; members must be practitioners. Although COP members may value their collective competence, outsiders may not even recognize it. Developing a shared practice can result from intentional efforts, such as employees collecting and documenting common knowledge learned while on the job or unintentionally, perhaps through conversations during breaks. Both involve the creation of a set of stories that become a shared repertoire of knowledge for practice. COP exist everywhere and individuals belong to

multiple communities, such as families, schools, occupations, professional associations, garage bands, Alcoholics Anonymous, gangs, and churches.

Others have studied COP from a situated learning theory perspective. Handley, Sturdy, Fincham, and Clark (2006) note that situated learning theory accounts for individuals' personal histories, experiences, and knowledge and that the norms of one COP may complement or conflict with the norms of another. For an individual to have a coherent sense of self, conflicts must be negotiated and reconciled, at least somewhat. It is important to understand what happens within and beyond COP. They explore COP from several perspectives, such as that of the individual learner and the broader socio-cultural context in which COP are embedded. Heaney (1995) states that learning is situated in relation to social practice as well as space and time: "Learning is an individual's ongoing negotiation with communities of practice, which ultimately gives definition to both self and that practice, whether it be in the context of training, literacy acquisition, community action, or graduate education" (p. 3).

COP has been studied from a business perspective. Brown and Duguid (1991) stress the role of COP in improvising new knowledge in groups formed in resistance to management, when canonical practices of work were not sufficient to complete required tasks. Brown and Duguid (1991) argue that in order to understand how information is constructed and travels in an organization, one must understand the communities within the organization and the distribution of power among communities. Wenger (2004) suggests that if a good model for managing knowledge is adopted, then its practice can give a company a decided advantage. He also states that, "if knowledge is a strategic asset, then it has to be managed like any critical organizational asset" (p. 1). Wenger, McDermott, and Snyder (2002) forward the concept of COP as a management tool for managers, who should foster COP across organizational boundaries. Millen, Fontaine, and Muller (2002) state that management needs to understand why organizations should support healthy collaboration in COP. Worker groups, or COP, have common disciplinary backgrounds, work and tools, shared stories, contexts, and values (Introduction, para. 1). Vestal (2006) shares that many organizations have invested time and resources into designing and implementing COPs, in an attempt to connect people with similar issues and collect content that will improve business processes (para. 1).

In exploring 22 articles and books related to COP (2001), Imel found that learning that occurs in a community emphasizes the social as opposed to the individual and that learning is considered to be situated in the social context. She also found that theories focusing on the social nature of cognition and meaning are stressed over theories focusing on individual learning. Additionally, the process and content of learning are intertwined. Handley et al. (2006) discusses limitations of situated learning, noting that "the capacity of individuals to compartmentalize their identities and behaviors according to the community they were currently 'in' might be difficult to achieve, especially given a desire to maintain a coherent sense of self" (p. 650). An individual's attempts to adapt can lead to tension within the individual and instability within her or his communities of practice (Handley et al., 2006). Lave (1996) states that it is difficult to move from the periphery of a community of practice to full participation because "the processes by which we divide and sell labor, which are ubiquitous in our way of producing goods and services (including 'knowledge'), truncate both the movement from peripheral to full participation and the scope of knowledge skill" (p. 65). These processes may even separate identity from intended forms of knowledgeable practice.

Ambiguities in the terms "community" and "practice" make the concept of COP adaptable for different academic and practical purposes, but can be confusing, due to the various

conceptualizations of community, learning, power and change, and diversity and informality (Cox, 2005). Handley et al. (2006) agree that the terms “participation” and “practice” in COP literature are ambiguous and overlap in meaning.

Imel (2001) reviewed literature in adult education that raises concerns about learning in community. Structures for peripheral participation, such as workplace education and training, may keep learners on the edges of groups by reinforcing the dominance of older members over the aspirations of newcomers (Heaney, 1995). St. Clair (1998) addresses reasons why use of the term “community” can be confusing and suggests that it can be a useful analytical construct if viewed as a form of relationship between people, instead of a collection of things or people.

### **Communities of Practice for Seniors**

In the United States, living to certain ages allows certain benefits, such as the ability to obtain a driver’s license and to legally consume alcohol in a bar. Benefits for older adults are received at various ages. According to the U.S. Social Security Administration, workers can retire between the age of 62 and full retirement age; however, benefits are reduced if collected before the full retirement age (Retirement Planner). AARP, a nonprofit, nonpartisan membership organization, helps people who are 50 years or older to improve the quality of their lives. Century Village is a senior living community for people 55 or older. Although much of the US Census Data refers to adults 65 years or older, I chose 55 as the age for this paper, as it is the youngest age for residency in Century Village. Laslett (1991) lays out stages of life in four eras. The first era is one of dependence, socialization, immaturity and education. The second era includes independence, maturity and responsibility, earning and saving. The third is an era of personal fulfillment, and the fourth brings final dependence, decrepitude and death. Seniors in which I am interested may participate in COP about personal fulfillment, dependence, and the last stages of ageing, as well as aspects from earlier stages that have carried over, such as caring for siblings, children and grandchildren.

Community organizations and coalitions address issues such as health and wellness in the senior community. One example is the Escalante Health Partnerships, which responds to the health needs to the community (Nuñez, Armbruster, Phillips, & Gale, 2003). Another example is the Tenderloin Senior Outreach Project (TSOP), an organization that attempts to foster social support and social action organizing to address the poor health, social isolation, and powerlessness often connected with low-income elderly residents of single room occupancy (SRO) hotels. These agencies work with older adults through community efforts, but are not COP formed by the community members themselves.

I chose to examine Century Village because of the rich living environment and options it offers to residents; there should be a variety of COP. Century Village is a renowned and unique active-adult, 55+, condominium community which in its promotional material offers an “unrivaled amenity-rich lifestyle at an affordable price” for 50,000 residents in 4 South Florida communities (Century Village, 2009). Each residential community offers a variety of activities: golf, swimming, tennis; exercise classes; clubhouses and clubs; computer classes; arts and crafts; billiards and ping pong; security; and transportation. Entertainers come for 200 Broadway-style shows per year. With over 30 years in existence, Century Village has had time to form COP, perhaps around education, employment, end-of-life issues, health, finances or raising grandchildren. With the space and opportunities provided, residents likely create informal groups where learning occurs, a repertoire of experiences, tools, tips, and stories are shared, and knowledge is practiced. Formal and structured learning opportunities, such as workshops and classes by experts to engage the members and help them make informed decisions can be

planned by the Century Village staff. Codified information may be posted, disseminated, and discussed. Informal learning would occur in the spontaneous conversations that occur without intent. The members themselves can be responsible for sharing their tacit knowledge. For example, perhaps someone knows of a specific AARP employee who has a wealth of information about local Medicare services or maybe a member knows of an organization where seniors can receive discount meals on weekends. Online learning would probably not be a primary learning setting, unless the COP focused on the Internet or technology. Century Village as a business may offer funding, support and other resources for these COP, but they would be created and maintained by the residents whose lives they enhance. The domain would differ according to interest and practice, but would include members of the residential community. New members would likely be residents new to Century Village or new to the specific COP. To different degrees, all members would share their knowledge, methods, experiences, tips, and stories to teach and learn from each other. They would spend time interacting and practicing the information gained and perhaps even document their knowledge. Successful COP would work to resolve potential conflicts regarding self-identity, new member socialization and minimization of conflicts between long-time members and newcomers. Senior COP would also need to find ways of addressing the death of members and how to maintain a sense of community.

Learning is social and inherent. In a senior living environment, where residents have vast stores of information, knowledge, and experiences, communities of practice offer great opportunities to share tacit knowledge. Research about COP in senior living environments should address how members come together to share knowledge, support lifelong learning, and discuss common concerns about ageing. Research should also address individuals' abilities to integrate their multiple identities with minimal conflict. Ways to make the transition from periphery to full participation smoother and reduce tension between different levels of members is another area to study. Another area to study in such COP is how teaching occurs. For example, how much is formal or led by an expert? Are there scheduled classes or specific times when residents share knowledge? Finally, this study was conducted off-site; Century Village would be an excellent site for direct study.

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## **Metacognitive Functions, Interest, and Student Engagement in the Writing Process: A Review of the Literature**

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**Abstract:** The purpose of this paper is to draw on research that discusses the relationship between interest and metacognitive functions and its effect on engaging students in the writing process. Results indicate students who are interested in their writing activities engage in metacognitive strategies, remain focused, and complete their tasks.

Today's fast-paced, global society demands that individuals demonstrate clear, concise, and effective written communication skills. Failure to address and remediate students' writing deficits can have a detrimental effect on their abilities to successfully transition from students to working adults. Educators must take a proactive approach in identifying students' interests and incorporating cognitive strategies that facilitate the writing process. Students' interest and motivation rest in their emotional involvement or connection to a topic. Student writers need to understand the purpose of their writing and relate it to practical experiences (Ainley, Hidi, & Berndorff, 2002). Writing is not an accidental process; it is a process that requires skills gained by conscious effort, extensive practice, and commitment to the writing task.

Students' difficulties in writing usually appear early in elementary school. By the time students reach middle school, their writing is often so poor that it does not adequately meet the needs of their grade level classroom (Lane, Graham, Harris, & Weisenback, 2006). As students advance from grade to grade, teacher expectations and national standards are heightened, making writing deficits more apparent. According to data released by the United States Department of Education in 2007, the writing performance of 68% of 8<sup>th</sup> graders and 75% of 12<sup>th</sup> graders is at or below basic levels (Livingston, 2008). It becomes increasingly difficult for students to catch up to grade level standards and rehabilitate their writing skills. Students' writing deficits range from mechanical difficulties to higher order cognitive difficulties (Schumacher & Deschler, 2003). Struggling writers lack the metacognitive awareness necessary to internalize the writing process and self-correct their work (Baker, Gersten, & Graham, 2003). Students who acquire metacognitive strategies can learn to efficiently apply them towards the writing process. Competent writers are aware of the processes of writing and devote time to each stage of the writing process. Proficient writers understand the strategies and planning skills necessary to develop an organized written product (Baker et al., 2003; Monroe & Troia, 2003; Schumacher & Deschler, 2003).

The purpose of this paper is to analyze how writing can best be understood as a volitional process and the capacity of interest in stimulating metacognitive functions. Specifically, this paper addresses the questions: How does interest stimulate metacognitive functions? What is the effect of interest on and elementary and secondary students' engagement in the writing process?

### **Method**

The studies analyzed in this paper were selected based on the following criteria: participants were elementary or secondary students, the dependent measures were associated with academic and/or writing achievement and the independent measures involved metacognitive



strategies and/or interest-based activities. The search terms *cognition*, *metacognition*, *cognitive awareness*, *student interest*, *elementary students writing achievement*, *middle school students writing achievement* and *writing skills* were used to locate the studies using the Academic OneFile and OmniFile research databases.

Research on metacognitive functions in the writing process focused on three central themes that will be detailed below: (a) writing is a complex process that requires conscious effort and self-regulation, (b) students who were interested in their writing activities were more motivated to write and more likely to remain committed to the writing process, and (c) students who held positive beliefs about their writing were more likely to stay on-task and persevere through task completion.

## **Results**

### *Self-Regulation in the Writing Process*

The writing process is a multi-stage system of planning, organizing, and revising. Writing is as a volitional act which demands a high level of cognitive abilities, or thinking skills, as writers transfer information from one stage of the writing process to the next (Bruning & Horn, 2000; Becker, 2006). Skilled writers internalize the writing process by retrieving prior knowledge, connecting it to the given task, and sorting their thoughts before transferring them to paper (Baker et al., 2003). Internalizing the writing process involves metacognition, or the awareness of one's thinking as he or she is thinking. Pintrich and DeGroot (1990) reported a positive correlation between high levels of self-regulation and high levels of metacognitive strategies. Metacognition is triggered by interest, or affective states that stimulate strong feelings such as success and satisfaction, connected to past experiences (Flavell, 1979). Metacognition is comprised of a range of functions including metacognitive knowledge and metacognitive control. Metacognitive knowledge consists of three categories: strategic knowledge, knowledge about cognitive tasks, and self-knowledge. Metacognitive knowledge refers to awareness of metacognitive strategies. Metacognitive control refers to the actual use of the strategies (Pintrich, 2002; Pintrich & DeGroot, 1990).

### *Effects of Interest*

Ainley et al. (2002) attributed student achievement to high levels of interest. Measures of topic interest, affect, persistence, and test scores were analyzed and indicated that interest in writing, as well as other academic tasks, was based on topic interest and individual interest. Students who were engaged in topics of interest developed positive feelings, increased attentiveness, and heightened focus. Students who displayed interest in writing topics were more likely to remain committed to the activity and persevere through areas of difficulty. Students who were involved in interest-based activities were also more likely to explore the topic of interest independently.

Garcia and Caso (2004) found that students who are interested in their writing tasks are more focused and engaged. After implementing an intervention that revolved around interest-based, authentic activities, such as writing letters and recipes, and accompanied by direct, explicit instruction and the use of various graphic organizers, the researchers observed growth of students' productivity and coherence of written narratives. Students' attitudes about writing improved. Students were more satisfied with their completed work and achieved an understanding of the value of well written work.

Consistent with the findings of Garcia and Caso (2004), Katz, Assor, Kanat-Maymon, and Bereby-Meyer (2006) found that interest-based activities helped students stay on task. Their research focused on the relationship between interest, motivation and performance feedback. The

results of the study indicated that students with high levels of interest were more motivated, regardless of positive or negative performance feedback. Students were more willing to follow through with task completion. Students approached low interest activities with pessimism and non-compliance. In contrast, interest-based activities motivated students, even when learning conditions were not desirable.

Smith, Rook, and Smith (2007) compared the effects of cognitive, metacognitive, and affective questions on learning outcomes. Cognitive questions referred to the acquisition of knowledge through answering text-related questions. Metacognitive questions required students to address their own learning styles in their answers. Affective questions were related to students' background experiences. The outcomes of two experimental groups were compared to those of the control group which did not receive any questions. The data indicated greater learning gains made by the two experimental groups who were given cognitive, metacognitive, and affective questions.

Results of a study conducted by Monroe and Troia (2006) supported earlier research conducted by Garcia and Caso (2004) and Katz et al. (2006). Monroe and Troia (2006) reported that students who wrote about topics that interested them were more willing to engage in the writing process. Students were instructed to write about topics that interested them. They were taught multiple strategies for planning, revising, and self-regulating their work. All the students showed gains in their post test results. The weakest writers showed the greatest gains. The lack of restriction in choosing writing topics redirected students' focus on their writing difficulties onto learning the necessary strategies.

#### *Positive Beliefs and Perseverance*

Students who held positive beliefs about their writing abilities and understood the function of writing were motivated and connected their writing achievement to their efforts. Students who were interested in writing were more persistent and produced well-organized, more logical essays than unmotivated, disinterested students (Bruning & Horn, 2000). Students who viewed themselves as good writers were more likely to engage in the writing process than students who viewed themselves as poor writers. Socio-cognitive variables heavily impacted students' feelings towards writing. Students' sense of self-efficacy and ability to efficiently gather cognitive, motivational, and linguistic resources affected the way they approached writing tasks.

### **Discussion**

The studies analyzed in this review indicate a positive correlation between metacognitive functions, interest, and task engagement. Writing is a choice. This choice is influenced by interest. Students, who engage in writing activities they perceive as appealing, submit themselves to the writing process and view it as more than an academic function. Restrictions on writing activities interfere with students' abilities to produce quality work (Garcia & Caso, 2004). Students who experience an emotional connection to a given task are able to monitor their use of metacognitive strategies and remain focused on a task.

Students who engage in metacognitive strategies are more likely to remain engaged in a task and persist through its completion. Students who engage in metacognitive control through the use of self-regulation strategies place value on their class work and demonstrate a willingness to comply with classroom norms (Pintrich & DeGroot, 1990). Interest-based writing activities keep students engrossed and eager to explore new information related to their interest. Furthermore, students who engage in interest-based activities are more satisfied with their end

performance (Katz et al., 2006). The proper writing strategies can help students feel anxiety-free about their writing abilities and transcend negative experiences associated with writing.

### **Conclusions and Implications**

Catering to students' interests stimulates metacognitive functions and fosters active engagement in the processes of writing. Metacognition and metacognitive knowledge facilitate the writing process as metacognitive control enhances development of writing skills. Through conscious effort, students' intrinsic desire to produce quality writing can eclipse the need to achieve academic success. Armed with the proper strategies and guidance, struggling writers can become competent writers. Educators are knowledgeable in how to implement learning strategies, but lack clear understanding of metacognitive processes and how metacognitive skills are developed (Kuhn & Dean, 2004). Psychologists are versed in metacognitive theories, but do not have sufficient opportunities to transfer theory into practice in classroom settings. Collaborative efforts between educators and psychologists are necessary to connect ideas and set goals for helping students acquire critical thinking skills. Educators and psychologists need to come to an understanding of metacognition and its applications in the writing process. Educators who are versed in metacognitive functions can provide struggling writers with explicit instruction of metacognitive strategies. Teaching metacognitive strategies, such as self-regulation via goal-setting and self-monitoring, are effective in helping students internalize the writing process. Self-knowledge of strengths and weaknesses enables students to adjust their metacognitive strategies and increase their opportunities for writing success (Pintrich, 2002).

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## **Think Before You Speak: Increasing a Student's Appropriate Verbal Responses During Classroom Instruction**

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**Abstract:** This study compared the effects of two intervention packages on increasing the appropriate verbal responses of a 7<sup>th</sup>-grade student. The interventions were determined by the results of a functional assessment of behavior. An alternating interventions design was used. Both intervention packages were successful in increasing the target behavior.

Disruptive verbal behaviors, such as calling out and making noises, impede learning and infringe on valuable classroom instructional time. These behaviors create unnecessary distractions for students and teachers and often lead to other off-task behaviors (Shapiro & Kratochill, 2000). Interrupting classroom instruction to redirect such behaviors is time-consuming and energy-depleting for teachers and offending students. Consequently, daily routines and learning outcomes are greatly compromised. Disruptive behaviors that continue without intervention can lead to poor academic performance (National Center for Education Statistics, 1997). As such, it is critical to identify the function of the behaviors and intervene with an appropriate intervention.

The purpose of the study was to compare the effects of self-monitoring and journaling versus the effects of self-monitoring and tactile stimulation on increasing the appropriate verbal responses of a 7<sup>th</sup>-grade student in a language arts classroom. Specifically, the study addressed the question: How does the combination of self-monitoring and journaling versus self-monitoring and tactile stimulation affect the number of appropriate verbal responses exhibited by a disruptive student during language arts instruction? The study also provided an opportunity to compare the effects of two intervention packages versus two single interventions.

### **Review of the Literature**

Inappropriate verbal responses are characterized by impulsive behaviors, which include premature responding, motor impulsivity, and response inhibition. Students who exhibit such behavior often react without deliberation and verbalize answers that are erroneous (De Pascalis, Arwari, D'Antuono, & Cacace, 2009). In order to understand the function of such behavior, professionals may conduct a functional assessment of behavior (FAB). A FAB allows professionals to make direct observations and formulate a hypothesis regarding the functional relationship between the problematic behavior and its consequence. Once professionals understand the function of the behavior, they can proceed with a suitable intervention. A decrease in the target behavior implies that the function of the behavior was accurately identified (Richards, Taylor, Ramasamy, & Richards, 1999). In 2001, Dixon, Benedict, and Larson, performed a functional analysis of the inappropriate verbal responses exhibited by an adult male. The results of the functional analysis suggested that the participant's inappropriate verbal responses were maintained by his need to seek attention. The intervention consisted of differential reinforcement of alternative behavior (DRA). The intervention was delivered across four conditions in a multi-element design. As part of the DRA, adults responded only to the positive statements made by the participant. The results indicated a decrease in the participant's

Monem, R. (2010). Think before you speak: Increasing a student's appropriate verbal responses during classroom instruction. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 69-75). Miami: Florida International University. [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

inappropriate verbal responses, confirming researchers' accurate identification of the function of the behavior.

Self-monitoring strategies are effective interventions for increasing desirable behaviors (Wood, Murdock, Cronin, Dawson, & Kirby, 1998). Self-monitoring strategies require the use of metacognitive functions to self-regulate and self-evaluate (Pintrich & DeGroot, 1990). Pintrich and DeGroot (1990) found a positive correlation between high levels of self-regulation and high levels of metacognitive strategies. Their study consisted of a sample of 173 eighth-grade students who answered self-report questionnaires. The results indicated that students who engaged in metacognitive strategies were more likely to remain engaged in a task and persist through its completion. Students who engaged in self-regulation strategies placed value on their class work and demonstrated a willingness to comply with classroom norms. Amato-Zech, Hoff, and Doepke (2006) reported an increase in on-task behavior after implementing a self-monitoring strategy. Three students in a special education classroom demonstrated 35% gains in on-task behavior after the implementation of a self-monitoring electronic beeper, the *MotivAider*. Wood et al. (1998) also concluded that students who self-monitor their behavior can learn to manage and increase the time they spend on task. In addition to increasing on-task behavior, students in the study showed gains in academic achievement.

Liaupsin, Umbreit, Ferro, Urso, and Upreti (2006) reported positive effects on behavior as a result of implementing communication response strategies and self-monitoring strategies. Their research focused on a 14-year-old female student who was at risk of academic failure. The student's behavior was assessed using a multistep process, consisting of teacher interviews, student interviews, and observations. The student's on-task behavior increased in all of her classes and was maintained at a high level of stability. Lambert, Cartledge, Heward, and Lo (2006) further illustrated the benefits of teaching communication strategies to at-risk students. The researchers implemented the use of response cards in two 4<sup>th</sup>-grade classrooms. Disruptive students were instructed to provide written responses to teacher-posed questions during classroom instruction. The number of students' disruptive verbal responses served as the baseline. The treatment phase consisted of having students provide written responses on cards. The researchers utilized an A-B-A-B reversal design consisting of a baseline phase (A), a treatment phase (B), withdrawal of the treatment (A) and a return to the treatment. The results indicated a considerable decrease in problematic behaviors such as calling out, laughing during instructional time, making noises, and throwing objects.

Tactile stimulation is an effective intervention in reducing disruptive behavior (Grskovic et al., 2004; Kercood, Grskovic, Lee, & Emmert, 2007; Stalvey & Brassill, 2006). Tactile stimulation of a manipulation object results in a reduction of off-task behaviors; it helps students increase their focus on a given task by increasing the frequency of on-task behaviors during direct and independent practice.

### **Single-Subject Design Method**

#### *Participant*

Jay (a pseudonym) was a 12-year-old Hispanic male student enrolled in an advanced 7<sup>th</sup>-grade language arts class. He scored a 4 on both the Mathematics and Reading subtests of the Florida Comprehensive Achievement Test (FCAT). During language arts class, Jay called out answers, spoke out of turn, interrupted his teacher and classmates while they were speaking, and hummed. Jay's math, science, and social studies teachers also reported that his inappropriate verbalizations were problematic in their classrooms. Jay, the youngest of three brothers, was described by his parents as impatient and impulsive around adults and peers. His older brother,

the middle child of the family, was diagnosed with Autism Spectrum Disorder. Jay and his parents agreed that his older brother had special needs and required a significant amount of the family's attention. The results of Jay's FAB indicated that his inappropriate verbal responses were maintained by the attention he received from his teachers and classmates.

#### *Setting*

The study took place in a 7<sup>th</sup>-grade advanced language arts classroom located in a suburban middle school. Jay attended this class every other day with 24 other students. Jay sat in the first seat of the fourth row, facing both the white board and teacher's podium.

#### *Materials*

Two different self-monitoring sheets were used. The first sheet, used in Intervention I, included blank lines for a journal entry and a chart for recording verbal responses. The second self-monitoring sheet, used in Intervention II, consisted of a chart for recording verbal responses. One soft, air filled rubber ball, 4.75" in diameter, was used for the tactile stimulation intervention during Intervention II.

#### *Target Behavior*

The target behavior, appropriate verbal responses, was defined as Jay speaking only to ask or answer task-related questions after raising his hand and being called on by the teacher.

#### *Design*

An alternating treatment design with a baseline and final treatment phase was used to evaluate two intervention packages. As recommended by Richards and colleagues (1999), a baseline phase was included in order to compare the frequency of appropriate verbal responses before and after implementation of the interventions. A final treatment phase was included due to the nature of the Jay's behavior and the significant improvements that were achieved with Intervention II.

#### *Data Collection*

Data collection methods included a FAB; direct observations; teacher, student, and parent interviews; and self-monitoring tracking sheets. The language arts teacher was responsible for collecting data.

#### *Dependent Variables*

The dependent variable was the number of appropriate verbal responses exhibited by the student.

#### *Independent Variables*

The independent variables consisted of two intervention packages. Intervention I was a combination of self-monitoring and journaling. The self-monitoring intervention consisted of the student recording his verbal responses on a daily tracking sheet as either meeting the target behavior or not meeting the target behavior. The journaling aspect of the intervention required the participant to write his responses in the journal response section of his self-monitoring sheet and submit them to his language arts teacher at the end of the 60-minute instructional block. Intervention II was a combination of self-monitoring and tactile stimulation. The self-monitoring intervention held the same recording requirements as those of Intervention I with the exception of a written response. The tactile stimulation intervention consisted of having the participant squeeze a soft, air filled rubber ball, 4.75" in diameter, while he waited quietly for the teacher to call on him.

#### *Procedures*

During the baseline phase, the language arts teacher recorded the number of verbal responses provided by the student. The verbal responses were recorded as either appropriate or

inappropriate. A whole-interval method was used to record the frequency of verbal responses in a 60-minute instructional block. Verbal responses were recorded as either appropriate or inappropriate. Baseline data was collected for six 60-minute sessions.

Prior to introducing the interventions, Jay was allowed to choose between two reinforcers—a ticket good for five minutes of computer time or a ticket good for one minute of conversation with the teacher. Jay chose tickets good for one minute of conversation with the teacher. Jay was told that he would earn one ticket for every three appropriate verbal responses he demonstrated.

During the first session for Intervention I, Jay was given an explanation of what his target behavior entailed and was taught how to record his verbal responses on a self-monitoring sheet. He was instructed to mark a tally in one of two boxes. The first box indicated that he met his behavioral goal. The second box indicated that he did not meet his behavioral goal. He was also instructed to write down any questions, comments, or answers to teacher-posed questions in the journal response section of his self-monitoring sheet.

During the first session for Intervention II, Jay was instructed to record his verbal responses on the self-monitoring sheet designed for Intervention II. He was also instructed to squeeze a small, air-filled rubber ball while he raised his hand and waited quietly for the teacher to acknowledge him. He was allowed to provide a verbal response after the teacher called his name.

The teacher maintained a monitoring sheet of Jay's verbal responses for every session. The teacher and Jay compared their results on a daily basis to ensure agreement. Interventions were counterbalanced across sessions with no more than two consecutive sessions of the same intervention. Each intervention was presented 6 times during its intervention phase.

### **Results**

The data indicated that both intervention packages were effective in increasing the number of appropriate verbal responses in a 60 minute instructional block. As illustrated in Figures 1 and 2, there was a steady increase in appropriate verbal responses during both intervention phases. Overall, Intervention II was more effective in producing and maintaining the target behavior. As shown in Table 1, the number of appropriate responses increased from 0 during the baseline phase to 62 at the end of the alternating treatments phase. There was a 61% decrease in the number of inappropriate verbal responses. Intervention I, self-monitoring and journaling, accounted for 45% of appropriate responses. Intervention II, the combination of self-monitoring and tactile stimulation, accounted for 55% of appropriate verbal responses.

### **Discussion**

Results from this study are similar to those previously obtained for self-monitoring and tactile stimulation interventions (Amato-Zech et al., 2006; Stalvey & Brasell, 2006). In particular, the results demonstrate the effectiveness of combining self-monitoring and tactile stimulation to shift verbal behavior in a positive direction. The intervention was successful in improving Jay's behavior. Jay was able to reach desirable goals through the use of a combination self-monitoring and tactile stimulation. Jay's appropriate verbal responses were consistent throughout the intervention and post-intervention phases. Jay learned to gain his teacher's attention in a more appropriate manner.

### **Implications**

Students who exhibit inappropriate verbal responses are capable of improving their behavior and becoming productive members of a classroom community. This information may



assist teachers in choosing appropriate interventions which can reduce classroom distractions, increase on-task behaviors and, subsequently, increase the effectiveness of instructional delivery.

### Limitations

Several limitations of this study should be addressed by future research. Due to the nature of the alternating treatments design, there is a possibility of interference from interventions. The effects of Intervention I may have been masked by Intervention II. There is a possibility that the effects of Intervention I influenced or carried over to the effects of Intervention II. It is also difficult to generalize results to a larger population, different settings, other types of disruptive behaviors, or non-kinesthetic learners. Other limitations include teacher's willingness to intervene, the time commitment involved in implementing the intervention, and the complexity and number of steps involved in the intervention.

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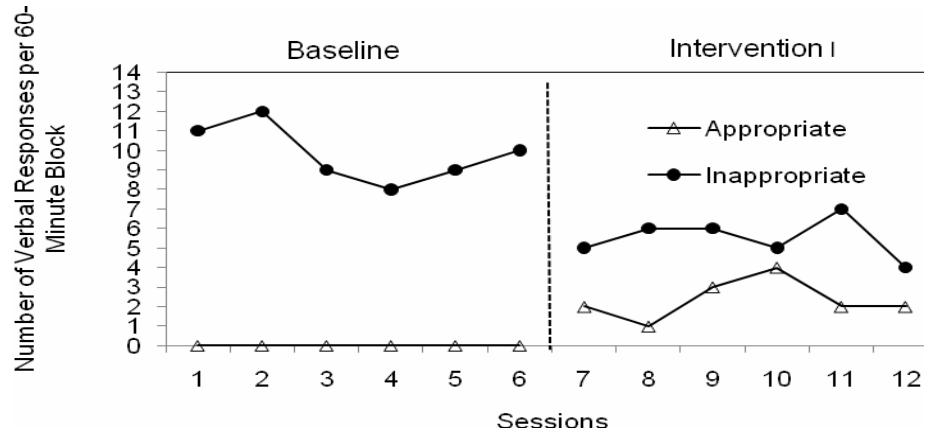


Figure 1. The effects of Intervention I: Verbal responses with self-monitoring and journaling.

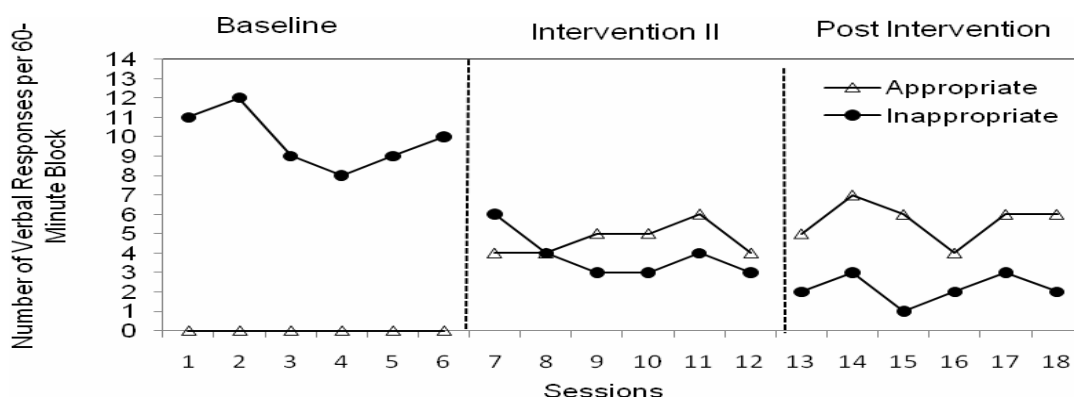


Figure 2. The effects of Intervention II: Verbal responses with self-monitoring and tactile stimulation.

Table 1

*Number of Verbal Responses*

Responses	Baseline	Self-Monitoring & Journaling Intervention	Self-Monitoring and Tactile Stimulation Intervention	Total
Appropriate	0	28	34	62
Inappropriate	59	23	13	36

## **General Curriculum Access: What Does it Mean for Students with Disabilities?**

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**Abstract:** This paper examines the status of empirical research on the use of curriculum modifications and instructional accommodations for students with all types of disabilities. Conclusions and implications are provided for improving the quality of education and access to the general curriculum for students with autism.

The initial intention of this literature review was to investigate curriculum modifications and instructional accommodations for students with autism. However, the bulk of information in this specific area includes discussion of policy analysis and legal interpretations of the law in the form of briefs and critiques (Browder, Wakeman, & Floweres, 2006; Hitchcock, Meyer, Rose, & Jackson, 2002; Karger & Hitchcock, 2003; Smith, 2006). Empirical research on the use of curriculum modifications and instructional accommodations by teachers in general education classrooms for students with autism is also limited. As a result of the scarcity of such studies, the current literature review was expanded to include peer-reviewed empirical research on the use of curriculum modifications and instructional accommodations for students with all types of disability in order to determine what is being done in the field of public education. The research question addressed in this paper is: What is the status of empirical research in the field of public education on the use of curriculum modifications and instructional accommodations for students with all types of disabilities? To answer the research question, this paper is organized as follows: (a) method, (b) literature review, (c) results, and (d) conclusion and implications.

### **Method**

The method for the current literature review consisted of the following steps. First, I examined dissertations by reviewing Proquest Dissertation Abstracts International to find out what has been researched regarding accommodations and students with autism. Then, I looked at various key terms, such as accommodations, adaptations, inclusion, autism strategies, and students with autism in various electronic databases. Then, I searched for research studies on access to the general curriculum for students with disabilities. The next section reports on studies I have identified thus far in my search to answer the research question for this paper.

### **Literature Review**

The literature review identifies five research studies that explore the general curriculum access, which means access to the educational standards within the school district that are applicable to all students (Individuals with Disabilities Education Act [IDEA], 2004). These studies are concerned with the meaning and degree of access to the general curriculum for students with disabilities and types of modifications and accommodations offered students with disabilities at the school and school district level.

First, research on the definition of access to the general curriculum was conducted by Dymond, Renzaglia, Gilson, and Slagor (2007). Dymond and colleagues conducted a mixed methods study in an urban school in a small mid-western state. They interviewed 20 general education social studies/science teachers and 15 special education teachers to explore their definitions of access to the general curriculum. General education social studies/science teachers

defined access for students with disabilities as being able to use the same curriculum and materials as students without disabilities. In contrast, special education teachers' defined access to the general curriculum as the use of an adapted curriculum tailored to individual student needs that also developed appropriate life skills. All of the interviewees believed that special education teachers were responsible for providing access to the general curriculum. General education teachers reported that they were the content experts, while special education teachers stated they were skilled in individualizing student instruction. Half of the general educators and only 8% of special educators interviewed defined access to the general curriculum for students with significant cognitive disabilities as having access to the same curriculum content as those students without disabilities. The limitations of this study included the small sample size and the fact that teachers from only one school were interviewed.

Second, the degree of classroom participation and access to the general curriculum that middle school students with cognitive disability have in relation to their classroom setting, meaning inclusive or self-contained, was the subject of a study conducted by Wehmeyer, Lattin, Lapp-Rincker, and Agran (2003). Participants included 33 middle school students in grades 6 through 9 at two schools. A time sample observation coded the subject content being taught, the type of setting, and whether or not there was a peer without a disability present in the classroom. Accommodations, adaptations and augmentations were coded broadly, not by specific types. For example, if an accommodation was documented, it was not stated whether it was extended time, reduction in amount of work, and so forth. It was noted only that an accommodation, adaptation, or augmentation was provided to a student. Wehmeyer et al. (2003) also examined school records to uncover anecdotal data such as IQ test scores, accommodations used, and current goals and objectives to provide a clear picture of the participants in the study.

Wehmeyer et al. (2003) analyzed variances across 439 observations first to determine if there was a difference between inclusion status of a student and what they were studying, either IEP goals or general curriculum, and to what degree accommodations, modifications, and augmentations were present. A second variance analysis examined class content being studied in the different types of general education classes (e.g., math, science/health, social studies, art/music, English/language arts, and history) which were then grouped with special education classes to assess each type of class and its impact on access to the general curriculum for students with cognitive disability. The researchers found that variances were based on the amount of support required for a student and were correlated to the amount of time spent on accessing the general curriculum. Students requiring limited support were engaged in activities related to the general curriculum in 87% of the intervals. Yet, students requiring intensive support were engaged in activities related to accessing the general curriculum in only 55% of the intervals. Students in inclusive settings were 40% more likely to be working on general curriculum than their counterparts in self-contained classrooms. In contrast, students in self-contained classrooms were more likely to be working on their IEP goals than students in inclusive settings.

Third, Soukup, Wehmeyer, Bashinski, and Boviard (2007) investigated the level of general curriculum access for elementary students with cognitive disability. Access to the general curriculum was determined by variables such as type of classroom, meaning either being in a general education classroom or a self-contained classroom, and what type of work was being done by the students. Included in the sample were 19 elementary school students, ages 7-12 years old, who were observed in either science or social studies class. Classroom observation data on accommodations and adaptations, as well as access to the general curriculum, were

collected using the Code for Instructional Structure and Student Academic Response (CISSAR), a computer-based time sampling program.

Factors that led to increased levels of general curriculum access were determined by Soukup et al. (2007) to be instructional grouping, physical arrangements, and whether it was a general education or a self-contained classroom. Students who spent a greater amount of time in the general education classroom worked 98% of the time on grade level standards but only 10% of the time on IEP goals. Students in the low inclusion group spent almost 58% of their time working on IEP goals in self-contained classrooms. Accommodations, which included mostly paraprofessional or peer support, were provided 67% of the time to all students; they were followed by adaptations, such as reduced work, lower reading levels, or key words represented in pictures 18% of the time. The researchers concluded that students included at a high or medium rate were more likely to have higher access to the general curriculum than students with low inclusion rates.

Unlike Wehmeyer and colleagues (2003) who did not differentiate between the types of accommodations, modifications, and augmentations, but only noted the presence of such in the classroom, Soukup et al. (2007) coded three types of student interventions, giving specific examples of each. These researchers coded for specific types of augmentations, modifications, and accommodations in the interval recordings. Augmentations were defined as types of strategies for learning, test taking, organization, self regulation, and other. Augmentations were never observed during the interval recordings.

Soukup et al. (2007) investigated the presence of the following adaptations or modifications in the classroom: (a) adjusted reading demand, (b) adjusted cognitive demand (not reading), (c) non-print content, (d) content through technology, (e) enhanced content, (f) non-traditional response to instruction, (g) non-traditional instructional materials, and (h) other. Only four out of the eight modifications were observed in the classroom in 17.6% of the time samples. The most frequently used modifications in descending order were adjusted cognitive demand (8.4%), using non-print content (7.7%), adjusted reading demand (6.2%), and enhanced content (0.6%).

Accommodations in the Soukup et al. (2007) study consisted of the student with a disability having any of the following in the classroom: (a) paraprofessional, (b) peer support, (c) note-taker, (d) environmental adjustment, (e) extended time, (f) redistributed time, (g) assistive technology, and (h) other. Accommodations were observed 67.4% of the time, but these included only paraprofessional support (65.4%), peer support (1.0%), and a note-taker (2.7%). Based on these results, it appears that the most preferred accommodation being provided to students with cognitive disabilities to access the general curriculum was providing a paraprofessional in the general education classroom.

Limitations of the study included small sample size and possible teacher effects because most of the students had the same teachers. The researchers believed that their results were within the norm of what can be found in similar settings since both their study and the Wehmeyer et al. (2003) study found that higher rates of inclusion resulted in higher rates of access to the general curriculum.

Fourth, establishing a model instructional implementation method for access to the general curriculum for students with cognitive disability was the goal of a study conducted by McDonnell, Mathot-Buckner, Thorson, and Fister (2001). McDonnell and colleagues sought both to increase general education inclusion time for students with cognitive disability and to enhance the quality of instruction by employing a multiple probe across subjects single-subject design to

examine the use of class-wide peer tutoring (CWPT), multi-element curriculum, and accommodations on the responding and competing patterns of included students with moderate to severe disabilities in a junior high school. A random selection of participants in this study comprised 3 students with moderate to severe disabilities, 3 students without disabilities, 1 special education teacher, and 3 general education teachers. Dependent measures were academic responding and student competition using the CISSAR. Experimental conditions of this single-subject multiple baseline design included the baseline and intervention measurements and an instructional package.

CWPT was the first component of this study and was implemented two times per week for 15 minutes a session by general education teachers who were told to create peer tutoring teams. The second component of this study was multi-element curriculum. Multi-element curriculum mirrors the definition of curriculum modifications. Both definitions require general education teachers to make changes to student expectations and modify instructional materials in order for students with disabilities to gain access to the general curriculum. Multi-element curriculum in this study included a change in focus on the instructional objectives for the students with disabilities to a subset of skills. The final component of this study was focused on accommodations which were developed for each of the 3 students with cognitive disability by the general education teacher and the special education teacher. Accommodations for many of the tasks these students were required to do involved reduced response demands.

As a result of the combination of CWPT, multi-element curriculum, and accommodations, the researchers found an increased participation of students with disabilities in the general education classroom. Limitations of the study included the small sample size, and the effects of implementing the instructional program with three different teachers. A recommendation for further study included examining each strategy individually for students with disabilities that function at different levels.

Fifth, access to the general curriculum for students with disabilities is not only an issue with which individual schools must grapple but also for school districts to address. The Montgomery County Public School (MCPS) district began a phase out of 30-year-old learning centers (LCs) for students with learning disabilities in an attempt to increase student access to the general curriculum as mandated by No Child Left Behind (NCLB, 2001) and IDEA (2004). Additional factors for the LC phase out consisted of lower academic performance for LC students than their included disabled peers, overrepresentation of African American and Hispanic students, difficulty integrating LC students into inclusive settings, and excessive numbers of students in LCs as opposed to their home schools. The overall aim of the phase out was to move students who were recipients of special education since kindergarten from the LC to more inclusive settings in their home schools. An evaluation of the phase-out process and the transition of these students into general education classrooms was conducted by Merchlinsky, Cooper-Martin, and McNary (2009).

Merchlinsky et al. (2009) utilized surveys, interviewed prime stakeholders in the process, and performed classroom observations on inclusive practices. Evaluation results indicated that while the MCPS offered training on inclusive practices, the training was poorly attended by teachers and support staff. Results from classroom observations showed that only 27% of sixth-grade and 23% of seventh-grade general education teachers were using differentiated instruction to assist included students to access the general curriculum. LC-transitioned students scored lower on standardized tests than students with similar disabilities. School staff expressed that

included students transitions from LCs required more support in the general education classroom than other students with disabilities.

### **Results**

Results of the literature review show that the status of empirical research in the field of public education on the use of curriculum modifications and instructional accommodations for students with all types of disabilities is limited to the meaning and degree of access to the general education curriculum for students with disabilities and to the types of curriculum modifications and instructional accommodations offered to students with disabilities. General curriculum access is interpreted in many school districts as simply a student with disabilities being placed in a general education classroom (Soukup et al., 2007). However, placement does not necessarily equate with access to the general curriculum (Browder, Wakeman, & Floweres, 2006; Newman, 2006; Wehmeyer et al., 2006), and most school districts do not have clear policies on strategies to promote access to the general curriculum for students with disabilities (Soukup et al., 2007).

While access to the general curriculum is important, there are different interpretations of what access to the general curriculum actually means for students with disabilities (Browder et al., 2006; Dymond et al., 2007; Newman, 2006). Many in special education try to make the point that access to the general curriculum for students with disabilities does not just equate to student placement (Hitchcock, Meyer, Rose, & Jackson, 2002; Karger & Hitchcock, 2003; Smith, 2006; Wehmeyer, 2006). However, an important consideration for general and special education teachers, as well as students with disabilities when gaining access to the general curriculum, is linking Individual Education Plan (IEP) goals to general curriculum in order to avoid the dilemma of teachers having to choose between providing access to the general curriculum or working on IEP goals that frequently do not relate to the general curriculum (Soukup et al., 2007; Wehmeyer et al., 2003).

Based on the research of the meaning and degree of access to the general curriculum, differing views exist among teachers as to who is supposed to provide access to the general curriculum for students with disabilities. Research on the use of curriculum modifications and instructional accommodations has been limited almost exclusively to students with cognitive disability. The most often used instructional accommodation was having a paraprofessional in the classroom, followed by extended time for assignments. However, more research needs to be done in the area of general education teachers' use of curriculum modifications and instructional accommodations for students with disabilities. Generating an understanding of classroom inclusion practices will benefit general education teachers and their students by finding out both what is currently being done and what could be done differently.

As demonstrated by McDonnell and colleagues' (2001), with support, general education teachers can successfully offer access to the general curriculum for students with disabilities. However, many general education teachers lament that they do not have enough training to support students with disabilities in the general education classroom. Consequently, compelling reasons exist for examining what teachers are doing in the classroom and where they have received training to provide access to the general curriculum for students with disabilities, specifically for students with autism since this has not been a research topic.

### **Conclusion and Implications**

Federal mandates, such as (NCLB, 2001) and IDEA (2004), combined with the public interest in providing access to the general curriculum for students with disabilities exist. While much is being done to make this a reality for all students, more research needs to be conducted on the topic. Ultimately, once more is known about curriculum modifications and instructional



accommodations general education teachers are using, the overall quality of education and access to the general curriculum might improve for middle school students with autism.

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## The Process of Becoming a Physics Expert from the Perspective of University Physics Professors

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**Abstract:** Results from a qualitative interview study of three physics professors at a large public research university are presented. Faculty view building physics expertise as moving through stages, developing knowledge skills, and adopting the norms of the community, which is consistent with the legitimate peripheral participation model.

Expertise research has provided insightful ideas about how people learn and what educators could do to move students toward greater expertise (National Research Council, 2000). Research on physics expertise, particularly, has shown how physics experts differ from novices in their problem solving skills (Chi, Feltovich, & Glaser, 1981; Reif & Heller, 1982). However, physics expertise research thus far has focused on cognitive aspects of the physics expert rather than on how one becomes an expert. The cognitive view of experts is rooted in a positivist perspective that assumes learning and knowledge happens in the mind (Rogoff, Matusov, & White, 1996). To learn more about the process of becoming an expert and the best conditions to facilitate this process, a constructivist view of learning is needed.

### Theoretical Framework

Constructivist theories and perspectives, such as situated cognition, situated learning, distributed cognition, and learning as transformation of participation, place learning within a context (Brown, 1989; Lave & Wenger, 1991; Rogoff, et al., 1996). Within a context suggests that “learning, thinking, and knowing are relations among people engaged in activity in, with, and arising from the socially and culturally structured world” (Lave, 1993, p.67). Learning as situated within a context leads to an exploration of the apprenticeship model of learning as the foundation for the process of becoming a physics expert.

The perspective of learning as transformation of legitimate peripheral participation within a community of practice is an apprenticeship model that describes the trajectory from newcomer, or novice, to old-timer, or expert. The apprentice, or novice, begins the journey as a legitimate peripheral participant, where *legitimacy* is defined as recognition by other community members that the apprentice can be a part of the community. The apprentice is given legitimate access to participate in the community with minimal responsibility (Lave & Wenger, 1991). Over time, the apprentice is acknowledged by the community as having legitimate potential of becoming a full participant in order to increase their *centripetal participation* as an old-timer. Centripetal participation toward full participation describes the increased engagement of a participant within the community of practice.

Within the community of practice, increased participation also implies the replacement of old-timers. Furthermore, the reproduction cycles of communities of practice leave an “historical trace of artifacts; physical, linguistic or symbolic, and of social structures, which constitute and reconstitute the practice over time” (Lave & Wenger, 1991, p. 58). As old-timers retire, they leave a legacy and knowledge that is passed down from one generation of old-timers to the next. In physics, the reproduction cycle is reflected in the basic physics knowledge attained from

Rodriguez, I. (2010). The process of becoming a physics expert from the perspective of university physics professors. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 82-88). Miami: Florida International University. [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

physics courses, the skills acquired from a productive scientist, and the social norms adopted to function as a member of the community (see Figure 1). In this paper, physics expertise is considered a status to be attained through continual transformation of participation within a community of practice. Physics professors at a research university can be categorized as physics experts because they have followed the legitimate peripheral participation model, changing their participation from students, to teachers, mentors, and researchers throughout their careers.

The purpose of this paper is to describe the process of becoming a physics expert from the perspective of university physics professors, which may be constructive for characterizing physics expertise. The research question is: “How do physics professors at a university describe the process of becoming a physics expert?” To investigate this question, a qualitative in-depth interview study of elaborated case studies of three university physics professors was conducted.

### **Method**

This section presents the participants, data collection, data analysis, and validity measures for this qualitative in-depth interview study.

#### *Participants*

Participants for this study were White males that received their Ph.D. in physics from research universities across the United States. Leebob and Albert, experimental physicists, and Mathew, a theorist, went through the customary undergraduate, graduate, and post-doctoral sequence in physics before assuming a faculty position at a research university. These three professors were purposely chosen both for the researcher’s established rapport with them and for their knowledge on the phenomenon of becoming a physics expert (Patton, 2002).

#### *Data Collection*

Data was conducted through individual qualitative in-depth interviews. All participants gave informed consent and agreed to be videotaped. Based on the experiences of the participants as students, teachers, mentors, and researchers, Rubin and Rubin’s (2005) description of a tree and branch structure was used for the interviews. Four main research questions were outlined by subsidiary questions that asked about experiences as students, teachers, and mentors. I also inquired about the participants’ perspective on expertise in physics. The three interviews were transcribed and proofread prior to an in-depth analysis.

#### *Data Analysis*

Data analysis took place in several, often overlapping stages. Since qualitative data collection and analysis is an evolving, ongoing process, and analysis involves organizing and breaking the data into little pieces (Bogdan & Biklen, 2007), many of the resulting themes and concepts originated during data collection and transcription. Following Rubin and Rubin’s (2005) concept recognition and elaboration, concepts and themes from the first transcript were categorized. Then, the next transcript was examined for similar themes and synthesized into a coding scheme, followed by another search in the first transcript for instances of similar themes. Finally, the last transcript was analyzed, using the same procedure. Ten to fifteen individual codes from each transcript were synthesized into 5 main themes. From one of the main themes, *process*, the 3 codes emerged and are discussed in the results section of this paper.

#### *Validity Measures*

Validity measures include transparency and reflexivity. First, I have had physics courses in previous semesters with two of the participants, Albert and Mathew, and during data collection, I was a student of one of the participants, Leebob. My interactions with Leebob during class time and meetings in his office regarding homework affected my subjectivity. Additionally, I acknowledge that I am the primary research instrument and have adopted the

practice of transparency (Ortlipp, 2008). As a current physics graduate student, my own attitudes and beliefs about the process of becoming an expert certainly influenced my interpretation of the data. I took the role of student whenever I interacted with these participants. Second, I practiced “reflexivity, the process of critically reflecting on the self as a researcher” (Merriam, 2002, p. 26) as an internal validity measure. I kept a reflective research journal throughout the research process to keep track of any biases toward the data and any of my choices and experiences that could influence the study.

### Results

Results show that the *process*, which directly related to the research question of becoming a physics expert, involved *stages*, *skills* and *norms*.

#### *Stages*

Stages are exemplified in Leebob’s transcript as he described the journey he envisions his graduate students going through:

There are stages. There’s the greenhorn . . . It’s the novice who doesn’t actually really know what you’re getting into. And you don’t really know what you’re doing either, and so you need a lot of guidance . . . but they’re learning, and they’re like sponges, but they take a lot of time . . . And I’ve got one student in that stage, and there’s a stage where they - where they’re actually starting to figure things out. And they kind of have an idea what they’re supposed to do . . . So you have people in this stage where they don’t really know what they know. Someone who is maybe taking their data or maybe a little bit before or maybe a little bit after and then, at some point - like I say during the writing process, during the real - which is really the hardest part is really understanding what it is you have. At that point, you go, “Aha. I know what I’ve got here. I understand what I’ve got.” And that’s when you’re a young expert.

Leebob’s descriptions of stages for his students are defined by students’ progress in their research projects. Progress from apprentice to expert is dependent on what the apprentice learns as his or her journey develops. These stages of knowledge are transformations of participation the apprentice goes through as he or she becomes an expert.

Complementary to Leebob’s description of stages, Mathew also commented on the stages he envisions his students going through:

. . . the first year I know they are not going to contribute. The second year, I expect them to get to the point where they’ve learned enough so they can contribute, and in the third year, they’re developing expertise in that field, actually, so by the time they’re finished, they know as much as I do about that specific field because they’ve contributed to some of it.

Mathew explicitly defines the stages of knowledge as measured by what the student can contribute to the research project. The apprentice gradually engages in tasks and moves toward the center of the community as he or she gains more knowledge and experience.

#### *Skills*

Skills are represented in Albert’s response to what process he envisioned his students going through as a list of skills the student should acquire:

I think students should be comfortable working with generic hardware. So they should be happy to turn on high voltage supplies, and they shouldn’t be afraid of connecting up detectors . . . They should be comfortable analyzing data from them . . . you should at least be able to have some experience with understanding what you did with that data and how you would, theoretically, just go about doing it in a different laboratory. And you

should have skills at communicating the results of that from there. You should know what the question was that was posed, and you should be able to provide some sort of an answer even if it's only the work is still in progress, and this is what we need to do still to get the answer.

The skills listed here are very specific to Albert's experimental physics interest. He and his students work very closely with the equipment they use to gather data for their physics research projects. Working together with the expert ensures acquisition of skills from experienced scientists. Mathew points out, "When you are experimentalists, there's something about working until 4:00 in the morning and passing screwdrivers and wrenches to each other that ends up building a slightly closer relationship."

These activities are a form of legitimate access to participation for the apprentice. However, in contrast to Albert's experience with his students, Leebob did not have such a congenial relationship with his mentor, "I learned most not from my advisor. I learned from the senior grad student in the group, the post docs in the group and talking to other faculty members and other students." Leebob makes it clear that not all communities of practices build direct relationships between expert and apprentice. It may be that the acquisition of skills comes from other members of the community where the knowledge skills spread rapidly and effectively. Nevertheless, the expert has provided legitimate access into the practice (Lave & Wegner, 1991).

#### *Norms*

Norms, in physics, as in many other fields of academia, are traditional methods of getting a degree and a set of standards that are expected of a student. Albert refers to a few generalized standards that apply in physics as well as across disciplines:

First of all, they do know pretty much about what's happening in their discipline, and they know this both by knowing what's happening with the theory of what's going on and the experiment . . . They should know what are the competing theories, what research is happening and especially what funded research is happening.

Here, Albert introduces the standard approach to physics research. However, acquiring physics expertise requires that the student learns not only the basic physics of the research project but also the folklore that is associated with the research. Leebob describes this process for his own research:

I knew not only the basic physics of building wire chambers, but I kind of knew all the little black magic techniques as well, that are based on - there's physics behind them, but there's a little folklore and, oh, oral knowledge that is passed down from person to person on how to make these things work. It would be people like me passing it to people like you [a student] for example. Mentors, friends who know maybe this part of it or that part of it, and you synthesize it all to become an expert.

Leebob indicates that there are many traditions and customs that make a successful community of practice. Norms can be viewed as a set of guidelines the community follows and should be adopted by its new members. Sharing the norms from generation to generation perpetuates the community of practice through time.

#### **Discussion**

Becoming a physics expert, as perceived by the physics professors in this study, depends on students adopting the norms of the physics community, acquiring skills, and moving through stages of learning development. Norms as standards of the community are represented as the boundaries of the community in the legitimate peripheral participation model (see Figure 1). Norms as boundaries distinguish one community from the next. For example, the community of

physicists has clearly defined standards as voiced by these professors, but a community of teachers may have a completely different classification of norms.

Norms also guide apprentices to participate successfully in the community with “shared repertoire” (Wenger, 1998, p. 82) of a community of practice. Shared repertoires include “routines, words, tools, ways of doing things, stories, gestures, symbols, action, or concepts that the community has produced or adopted in the course of its existence” (p. 82). A repertoire emphasizes the rehearsed aspect and availability of the practice for future generations. The rehearsed aspect is noted in Albert’s description of the process of conducting physics research. When Leebob shared his experience as a student learning the folklore of the field, he portrayed the propagation of stories from generation to generation.

Stages are dependent on the level of knowledge and research contributions the student can make to the research community. In Figure 1, stages are represented in the different shaded circles that platform the apprentice toward becoming an expert. Skills acquired by the apprentice outline the centripetal trajectory for becoming a physics expert. Representative of the arrow in Figure 1, knowledge skills propel the apprentice through the stages of knowledge toward the stage of expertise. According to this study, skills can be attained from different sources as exemplified by Leebob’s experience of learning the most from fellow graduate students and post-doctoral fellows. The relationship between mentor and apprentice generate opportunities for the apprentice to acquire knowledge skills from the mentor, but not all skills necessarily come from the mentor. This example augments the understanding that expertise resides not in the expert but in the community of practice of which the expert is only a part (Lave & Wegner, 1991). Since expertise is a status, the apprentice can view any member of the community as an expert.

### Conclusion

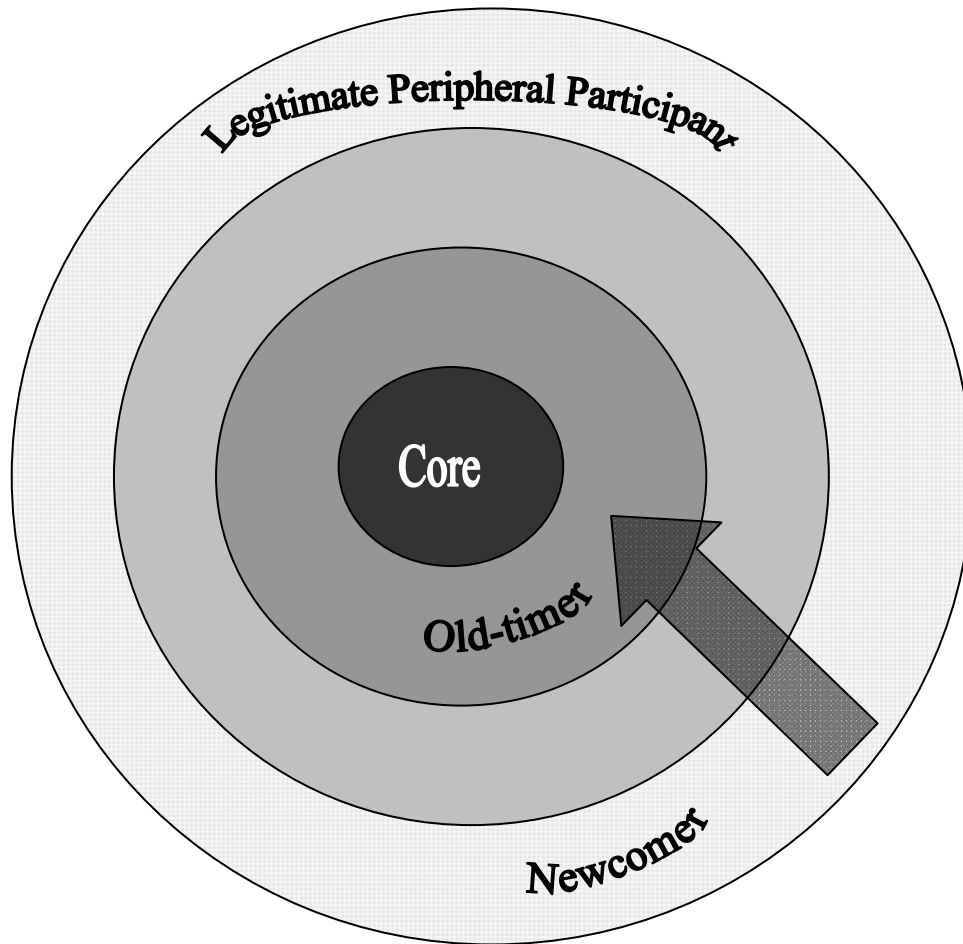
Becoming a physics expert is a process. From the perspective of three physics professors at a large public research university, becoming a physics expert requires moving centripetally through stages of knowledge toward full participation, acquiring skills from the expert members of the community, and adopting the norms or repertoire of the community. However, before adopting the norms or acquiring the skills, the apprentice must be provided with legitimate access to participation in the activities of the community. Gaining access to the community is the crucial first step to physics expertise.

Recommendations for further research include examining the perspectives of students going through the process of becoming a physics expert, investigating interactions of the community as a whole, and exploring how the members interact with each other. Data suggest that the process of becoming a physics expert is a constant transformation of participation within the community of practice. Yet, how a newcomer changes his or her understanding as he or she goes through the stages and what the conditions are for the transition to expertise still need to be explored.

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*Figure 1.* Pictorial representation of a community of practice indicating the location of the newcomer and the old-timer. Line represents a trajectory of the newcomer to old-timer.



## **“I’m Trying To Bring the Scores of My School Up, Man!” Standardized Testing, Stereotypes, and High-Performing African American Elementary School Students**

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**Abstract:** This qualitative study investigated factors that produced or perpetuated standardized test-based stereotype threat effects for a group of African American children. Findings revealed 4 themes: a perception of education as strictly test preparation, test-based stress and anxiety, racial salience, and stereotypes. Implications for practice and policy are discussed.

The standardized test performance of African American students has long been a serious concern and source of debate. The dominant discourse (e.g., Thernstrom & Thernstrom, 2003) largely focuses on a cultural deficit model to explain the racial test score gap.<sup>1</sup> Such an explanation downplays the effect of racial stereotyping and students’ subsequent responses. *Stereotype threat* (Steele & Aronson, 1995) refers to the risk of confirming a negative stereotype about one’s group in a particular performance domain (e.g. standardized testing), and has been shown to significantly depress the performance of African American students at all levels (McKown & Weinstein, 2003; Steele & Aronson, 1995). Given the possibility of positive intervention (e.g., Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Good, Aronson, & Inzlicht, 2003; Marx, Ko, & Friedman, 2009), a necessary next step is to examine *how* children experience stereotype threat. This would seem to be of particular importance when addressing potential remedies for the racial gap in standardized test scores.

The No Child Left Behind Act (2002) has substantially increased the importance of standardized testing at the elementary grades (U.S. Department of Education, 2007). This has led to an unbalanced focus on test practice material in elementary schools serving primarily African American students, and a subsequent tendency for these students to tie their identities to their test scores (Cawelti, 2006; Kozol, 2005). Steele (1997) has suggested that individuals most affected by stereotype threat are those highly identified with the domain in question. In such cases, students who are more *domain-identified* will not only have traditional testing concerns, but also the added pressure of not confirming a prevailing stereotype about their group.

The purpose of this study was to investigate how domain-identified African American children in an urban elementary school navigate through the school year approaching the standardized test, and specifically to explore whether the standardized testing experiences of African American children in an urban elementary school are related to their stereotype awareness.

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<sup>1</sup> The term “test score gap” is used in place of “achievement gap” in this paper to indicate that it is solely in reference to gaps in standardized test scores, which are not the only measure of “achievement.” The author recognizes the “achievement gap” characterization as problematic, in that it (a) infers that the burden for underperformance is solely students’, and (b) it uses White students’ normative performance as a universal standard (see Hilliard, 2003). The terms “opportunity gap” or “resource gap” could better characterize the totality of the phenomenon in many cases by placing the burden for underperformance where the author believes it more rightly belongs.

Wasserberg, M. J. (2010). “I’m trying to bring the scores of my school up, man!” Standardized testing, stereotypes, and high-performing African American elementary school students. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 89-94). Miami: Florida International University. [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

### Theoretical Framework

Within the past decade or so, researchers have applied critical race theory (CRT) to educational issues (Ladson-Billings, 1999; Ladson-Billings & Tate, 1995; Solorzano, 1998; Solorzano, Ceja, & Yosso, 2000). CRT is defined as a theoretical framework that counters the dominant dialogue on race as it relates to education by examining how educational praxis and policy subordinates certain racial groups (Delgado Bernal, 2002; Solorzano & Yosso, 2001), and establishes the experiences of the dominant group as the norm (Duncan, 2002). CRT is described as an appropriate lens for qualitative research in the field of education (Delgado Bernal). Critical qualitative researchers utilize CRT to “examine the impact of race and racism along the entire educational pipeline from elementary schools, through middle and high schools, and on to the university” (Lynn & Adams, 2002, p. 89).

### Method

In order to characterize stereotype threat effects of children through a CRT lens, it was important to understand completely their subjective experience in this context. In this vein, the current study sought to acquire, through in-depth focus group interviews, a comprehensive record of factors that produced or perpetuated stereotype threat effects for a group of African American children.

#### *Participants*

The participants were a purposefully selected group of 4 African American elementary school students highly domain-identified with Reading. That is, the students reported very high performance in their Reading class and that performing well was very important to them. The student composition of the school was 80% African American, 19% Hispanic, and 1% White, and over 90% of the students qualified for free or reduced lunch (MDCPS, 2006). The school had never made *Adequate Yearly Progress* (U.S. Department of Education, 2007) by NCLB standards (based on standardized test scores), and had implemented several test-preparation protocols mandated by the state as a result. These characteristics are typical of many schools in urban centers in the United States (Kozol, 2005). The final sample included 4 nine year-old African American fourth-graders: 2 boys (“Floyd” [humorous] and “Johnny” [intellectual]) and 2 girls (“Asia” [outspoken] and “LaTavia” [pensive]).

#### *Procedure*

The design of the study included focus group interviews supplemented by classroom observations. The researcher interviewed participants on six occasions throughout the school year with questions related to standardized testing (specifically the Florida Comprehensive Assessment Test) and potential mediators of stereotype threat. Each interview lasted approximately 45 min. The interviews were taped and transcribed verbatim. Subsequently, a data analysis plan rooted in grounded theory was implemented. The transcripts coded and organized into themes. Conclusions on perceptions of influencing factors were drawn from the themes and subthemes that emerged from the data. This data was supplemented with fieldnotes from classroom observations. The classroom observations took place in 1 hr blocks over a four month period, for a total of 30 hrs.

### Findings

This section describes the findings from the data and offers some general comments on how test preparation curricular protocols in the urban elementary school context lead to an environment susceptible to stereotype threat experiences for African American students. Using Figure 1 as a guide, this section explores four themes that emerged from the data: (a) a narrow perception of education as strictly test preparation, (b) test-based stress and anxiety, (c) concern

with what “others” think (racial salience), and (d) stereotypes. Participants expressed an overall perception of test preparation as the reason for education, as represented by the center circle. This perception was complemented by 2 major overlapping themes: test-based anxiety, and concern with what “others” think (racial salience). Students were more likely to report stress and anxiety when the purpose of education was most narrowly associated with standardized test preparation, and students were likely to reference what “others” thought in terms of stereotypes. This is represented by the intersecting circles: Anxiety was sometimes expressed as related only to test preparation, whereas in other instances it was also related to racial salience. Within the theme of racial salience, race-based stereotypes were a salient part of the interviews, and students either repudiated or perpetuated these stereotypes, sometimes associating these stereotypes with their anxiety. In this vein, subthemes were created as the codes were analyzed. Specifically under the stereotypes theme, subthemes included (a) perpetuation and (b) repudiation of relevant stereotypes. Also, under the anxiety theme, subthemes included (a) physiological consequences, and (b) feelings related to self-doubt.

#### *Education as Test Preparation*

The focus group participants spoke almost solely of standardized test preparation in descriptions of their day. Asia clearly explained, “We have to do this book... in Math and Reading, and it helps us to understand more about the [state test]...almost every day for the whole year.” Field observations made it clear that in a large respect, the classrooms were test-preparation centers. During one-third of the field observations, the researcher spent the time observing students taking a practice test.

Data from the focus group interviews clearly indicated that this group of students viewed the test as the driving force for the curriculum. “If I was a teacher,” LaTonya explained, “I think I would give them stuff that related to the [state test], so they could be more focused.” The other students indicated their agreement. When asked what kind of “stuff,” LaTonya replied, “I don’t know – whatever’s on the [state test].” Data analysis revealed several instances where students agreed that preparing for the state test was the goal of their education in Reading. The focus group interviews indicated that they perceived their Reading class largely in the context of a diagnostic testing situation. Diagnostic testing environments are susceptible to stereotype threat for African American students (McKown & Weinstein, 2003; Steele & Aronson, 1995).

#### *Test-Based Stress and Anxiety*

The [state test] is the most important thing in the world. You can’t even drop the thing! If you drop it, how you gonna breathe, man, how you gonna breathe!?! (Floyd)

In the quote above, Floyd vividly captures the focus group’s feelings towards the state test. The students explained how the prospect of the upcoming state test made them nervous to the point of negative physiological consequences. Floyd put it vividly, “like I feel nervous in my stomach, and this crazy sensation turning and turning. When your stomach is turning...it’s turning so much, it turns into butter.” Some of these top performing students felt confident despite their nervousness, while others let their nerves affect their expectations. Floyd predicted he would fail, although he later earned the second highest score in his class.

The students suggested that they may not experience as much anxiety if the name of the state test were removed from the teachers’ vocabularies. LaTonya explained, “I want to scratch out the word ‘[state test]’ out of every test that has it... we wouldn’t be as nervous because we don’t see the word ‘[state test].’” Asia said that if she were a teacher, when the students were being tested she would tell them, “it’s not an [state test] practice test; it’s just a regular test that we do. It would make things feel, like, less nervous.” These suggestions are consistent with

stereotype threat research, which suggests that the performance of African American students is depressed when the test is characterized as a diagnostic (McKown & Weinstein, 2003).

*Concern with What “Others” Think (Racial Salience)*

“White people gonna be thinking that it’s just an F. White people gonna be thinking maybe to themselves, ‘Forever, [our school] is gonna get an F...’” – (Asia)

As indicated by Asia’s comment above, the students believed that White people held negative opinions of their school. LaTonya explained, “It makes me feel kind of sad because – well it’d kind of make me a little mad because just because I go to a D school, that does not mean that I’m a D student.” These remarks are consistent with stereotype threat theory. The students expressed a desire to not confirm negative stereotypes against them.

Johnny explained that when someone looks at their school online, they can also find information about the school’s “population.” He said, “It’s on the Internet. You go to – you see schools and everything, and then you see this school, you see the grade, and then you see where it’s at, the population.” He continued, “there’s some White people that are still angry with Black people...they still are hating Black people, so they still think that Black people are stupid and dumb.” Analyses revealed how the school’s test scores made race a salient factor for this group of students.

*Stereotypes*

The kids are from the streets. They act like little thugs. (Johnny)

The focus group made it a point to repudiate many stereotypes of their school. “Just because [some students at our school] wear pants below they waist, that doesn’t mean they have to get a bad grade,” Asia commented as the rest nodded and yelled “yeah” in agreement. At least in part, the participants put the responsibility upon themselves for raising the school grade, and positively changing these stereotypes. “I’m trying to bring the scores of my school up, man!” Floyd said adamantly. In addition to the normal stress and anxiety associated with high-stakes tests, these students felt the extra burden of saving their school. Asia said clearly, “we are going to put maximum effort because ...[we] don’t want the school to be teared down.” A nearby school elementary school was recently shut down by the state for consecutive years of poor test scores.

At the same time, however, as evidenced by Johnny’s quote above, the focus group sometimes perpetuated the same stereotypes they repudiated about the students in their school onto students in a neighboring school with identical demographics. The “kind” of students that don’t do well, Johnny explained, are “ones who wear their pants below their waist—pants be hanging, and boxers be showing.” Interestingly, this was exactly the same stereotype he repudiated about the students in his school.

**Implications**

This research has important implications for both educational policy and praxis. Findings provide important information for educators about how standardized testing based curricula may undermine the achievement of certain student populations. NCLB professes an aim of addressing the racial “achievement gap,” and articulates an emphasis on high achievement for all students. The legislation aims to achieve this goal primarily through increased accountability measured by standardized testing. However, the implementation of high-stakes testing regimens may make race particularly salient for African American students, and have adverse effects on performance. Such information is of particular importance to educational policymakers interested in standardized achievement based legislation, especially in light of the fact that test-preparation

curricular protocols are overwhelmingly implemented in schools serving low-income African American children (Kozol, 2005).

This is also of particular importance to teachers of African American children in that attention to the environmental details surrounding standardized testing situations can potentially prevent maladaptive consequences for their students. Positive intervention has been demonstrated in middle school populations by reframing performance tasks as nondiagnostic (McKown & Weinstein, 2003), by teaching students to view intelligence as malleable rather than fixed (Good et al., 2003), by having students reaffirm their sense of self-worth (Cohen et al., 2009), and by incorporating positive in-group role models (Marx et al., 2009). If educators are interested in ameliorating the racial test score gap, implementation of interventions to help prevent the negative performance consequences evoked by stereotype threat is essential at earlier ages. Therefore, future research in an elementary school setting examining the effects of these interventions on academic performance is critical.

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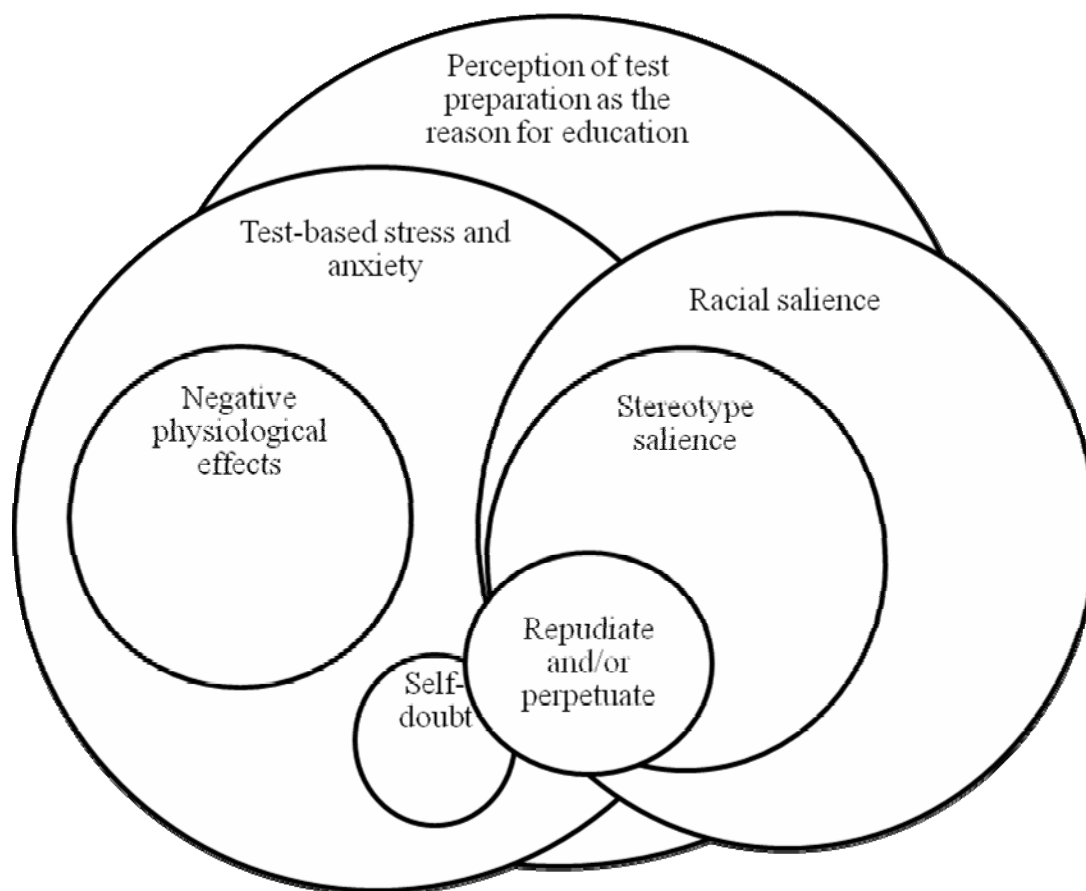


Figure 1. Themes that emerged from data.

## The New Information Ecosystem and Opportunities for Adult Education

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**Abstract:** This paper relates key elements of andragogy (Knowles, 1970, 1984) to the intellectual origins of the Internet. Common to both are the principles of access, voluntary participation, self-direction, and learning webs. New opportunities for adult learners and educators in the emergent information ecosystem are discussed.

Anyone with access to the World Wide Web now has a portal to a vast amount of information. This is a recent development as are the high rates of Internet usage, easy access to user-created content, and social computing. The explosion of new content on the World Wide Web, the ability of individuals to access and contribute to this content, and new interactive and communication technologies all constitute elements of a new information ecosystem. The term *ecosystem* is used to emphasize the importance of the multitude of interactions between individuals and communities in their use, exchange, and creation of information (Walker, 2002). This paper seeks to understand how this new information ecosystem can lead to new opportunities for adult learners and educators. The paper begins with a discussion of technology and its relationship to central themes in andragogy. These themes are related to the intellectual origins of the Internet and the emergence of a new information ecosystem. The paper concludes with a brief discussion of how recent developments may impact opportunities for adult learner and educators.

### Technology and Central Themes in Andragogy

Technology has helped adults escape conformity while providing tools to assist with learning and knowledge creation (Knowles, 1970, 1984). Knowles (1977) traces the use of technology in the education of adults to apprenticeship programs, agricultural societies, and Benjamin Franklin's Junto, a discussion group precursor to National Issues Forums. Junto members read printed material that they later discussed at meetings. Similarly, the knowledge of technology was first spread through agricultural societies, which met to discuss innovations and technological advances in agriculture. The printing press improved access to materials such as newspapers, pamphlets, and books, which increased communication and the dissemination of knowledge. Such progress aided colonists when they declared and won independence and nurtured a nascent economy (Isaacson, 2004; Knowles, 1977). Technological advances foster communication between people, dissemination of ideas, and economic development.

Technology also assists adults seeking formal (within educational institutions), nonformal education (external to the established institutions), or informal learning (e.g., opportunistic, experiential, incidental; Merriam & Brockett, 1997). Informal learning occurs without sponsorship or institutional control. Informal learning occurs in everyday contexts for problem solving (Merriam & Brockett, 1997; Merriam, Caffarella, & Baumgartner, 2006). Informal learning episodes are more commonly known as self-directed learning projects. Because of broadly accepted beliefs among adult educators that the majority of adult learning is informal (Merriam et al., 2006) and that adults have difficulty identifying and placing measurable parameters around these learning episodes, informal learning is a difficult area to study and to influence.

Houle's (1961) study of adult participation produced a division of "purposes and values of continuing education" (p. 15) that distinguished among goal, activity, and learning orientations. In the 1970s, Houle's doctoral student, Tough, investigated the learning orientation goal of adults, describing them as learning projects (Heimstra, 1994) initiated by learners who are motivated to gain knowledge, skills, or produce change. The assumption that adults are self-directed in their learning was popularized by Knowles (1970) and was based on learning orientation. Knowles (1970, 1975) further developed his basic assumptions about the adult learner by setting a baseline for self-directed learning. For Knowles, self-directed learning meant that adults have a universal need and are intrinsically motivated to be self-directed in their learning. The problems stem from experience and experience is used to solve the problems.

Knowles (1984) popularized other assumptions about the adult learner. He made the case to distinguish between adults and children as learners and developed the concept of andragogy, a system of assumptions about the adult learner (Merriam et al., 2006). Andragogy is "the art and science of helping adults learn" (Knowles, 1970, p. 38) and is counterpoised to pedagogy's focus on children. Adult educators accepted andragogy because differentiating between the education of children and adults was important to professionalizing the field. Consistent with this, Knowles promoted a planning model that incorporates evaluating the educational experiences of adults. Andragogy and self-directed learning are considered pillars in the knowledge base of adult learning (Merriam, 2001).

Ohliger argued against the professionalization of the field of adult education because he felt that as the practice of adult education became the profession of adult education, less of the development work would "advance equality and social justice for independent learners" (as cited in Grace & Rocco, 2009, p. 5) who value free access to media and materials. Professionalization also implied that education was a solution to correcting behavior, filling a void in knowledge, or serving corporations. Education as a solution diminished the importance of coming to learning voluntarily, engaging with a community of learners to solve a problem or pursue a cause, and pursuing self-directed learning projects without an instructor (Rocco, 2009).

An unarticulated assumption of the field is that adults have unencumbered access to education and learning opportunities. The assumption of access has been criticized because the amount of schooling, age, and socioeconomic status are predictors of access. Discussions of access, however, must be focused on what can be measured. So in 1982 when Darkenwald and Merriam described the typical adult education participant as "white, and middle class, has completed high school, is married" (p. 120), they refer to formal and nonformal education. The issue of access to education has been debated most notably by Illich as a critique of the institutionalization of schools, the commodification of education, and the redundancy of experts (Finger & Asun, 2001). The end result is "institutions create the needs and control their satisfaction, and by so doing, turn the human being and her or his creativity into objects" (p. 10).

Two concrete activities emerged from Illich's critique of institutionalization. He is known as the founder of the home school movement (Illich, 1970) and the advocate of learning webs (Illich, 1973). Learning webs exist in a convivial society that supports open access to learning tools and building communities of learners (Finger & Asun, 2001). With computers costing less than televisions and available in locations such as libraries and homeless shelters, Illich argued that there are novel possibilities for "a radically new relationship between human beings and their environment" (as cited in Finger & Asun, 2001, p. 14) in terms of access to learning tools, voluntary unencumbered choice to solve problems, and the support of a community of self-directed learners.



### Intellectual Origins of Web 2.0 and the New Information Ecosystem

The emergence of Web 2.0, the technical infrastructure that allows users to contribute content on the World Wide Web across time and space, and the open source movement have their origins in the democratic ethos of the programmer communities around Stanford University, Silicon Valley, the Massachusetts Institute of Technology (MIT OpenCourseWare, 2006), and Cambridge Massachusetts (Raymond, 2001). Established in 1975 in Silicon Valley, the Homebrew Computer Club members helped each other build personal computers, shared ideas, and *shared* software. Sharing software prompted Bill Gates' open letter to hobbyists, in which he lamented that "as the majority of hobbyists must be aware, most of you steal software" (Gates, 1976, para. 4).

A founding member of Homebrew Computer Club, Lee Feldenstein, led a project called *Community Memory*, which allowed everyday people to link to a central computer from two terminals set up in a popular record shop. The project's description was:

An actively open information system, enabling direct communication among its users with no centralized editing or control over the information exchanged. Such a system represents a precise antithesis to the dominant uses of electronic media which broadcasts centrally-determined messages to mass passive audiences. (Leadbetter, 2008, p. 56)

Feldenstein saw the *Community Memory* project and other efforts like it as fostering convivial institutions like those discussed by Illich (1973). Like John Ohliger and other adult educators who challenged the conventions of the time (Grace & Rocco, 2009), Feldenstein was strongly influenced by Illich (1970) who famously rallied against schools that discourage poor and disadvantaged from taking control of their learning. These optimistic and democratic beginnings of the World Wide Web ebbed in the era of the dot.com boom and bust from approximately 1995-2001, but have begun to re-emerge with the open-source movement and social computing, which may lead to increased access, voluntary participation, and self-directedness (Benkler, 2006; Raymond, 2001).

This democratic ethos has also guided reconsideration of the traditional restrictive use of copyright. An active computer hacker culture was emerging in Cambridge, Massachusetts. At its center was Richard Stallman who, as an undergraduate student at Harvard, became a programmer at Artificial Intelligence Lab. He continued to work there until 1983, when he launched the GNU operating system as an alternative to the proprietary UNIX operating system (GNU is a recursive acronym for "GNU is not Unix"). In his continued efforts to develop and promote GNU, Stallman issued the GNU manifesto (Stallman, 1985) in which he outlined the general principles of the free software movement and General Purpose Licensing (GPL). This was later developed as the concept of *copyleft*.

Copyright law grants an author the right to prohibit others from reproducing, adapting, or distributing copies of the authors' work. In contrast, under the doctrine of copyleft, products are allowed to be reproduced, adapted, and redistributed, provided the subsequent versions of the product are also covered by the principles of copyleft. GNU, GPL, and copyleft were developed further during the early years of Web 2.0 (Lessig, 2005). If copyright can be reduced to *all rights reserved*, Creative Commons was founded to formalize various ways creators of intellectual property could codify *some rights reserved* (Lessig, 2005).

In many ways, the restrictions of the use of content are designed to protect the original authors from false attribution of ideas as well as to protect the intellectual property of the authors. Terms of distribution for the Online Courseware (OCW) initiative provide a good example (MIT OpenCourseWare, n.d). In the frequently asked questions section on OCW's

website, clear and explicit references are made to the concept of copyleft. Specifically, OCW limits the use of the material to non-commercial purposes. For-profit and non-profit entities may use OCW material provided that a fee is not charged to their clients. Massachusetts Institute of Technology requires the distribution of OCW, and derivative works should attribute the initial authorship of faculty. However, translations of OCW materials must note that faculty have not reviewed nor are responsible for the accuracy of translations. Finally, relating the principle of copyleft requires that others who use the work must “offer the works freely and openly to others under the same terms that OpenCourseWare first made the works available to the user” (MIT OpenCourseWare, n.d., para.8)

The impact of copyleft and Creative Commons licensing on Web 2.0 and the current information ecosystem can be seen both in the development of the technical infrastructure for collaboration and access to the World Wide Web and in the challenge to the notion that knowledge is owned by individual or corporate producers of content. In terms of infrastructure, Linux and the Open Source software movement facilitates increased access and, thus, reduces the transaction costs of mass collaboration (Raymond, 2001). In terms of content creation, Creative Commons provides a means by which content providers can share content with varying levels of restrictions (Leadbetter, 2008).

The technical infrastructure of the Internet allows individuals dispersed across time and space to gain access and to develop new content. In less than the span of a generation, the amount of information has grown beyond what could be measured by the estimated 231.5 million publicly accessible websites (Wolfram Research, 2010). The munificence of new information is creating new opportunities for the exploration of learning in formal, informal, and nonformal settings. The content contained within this new information ecosystem is the result of a combination of for-profit initiatives, not-for-profit individual and institutional initiatives, and social computing.

### **New Opportunities for Adult Learners and Educators**

Given the intellectual origins of Web 2.0, it is not surprising that adult educators have been among the first to use the tools for collaborative endeavors. A new, uncoordinated movement is emerging among adult educators collaborating in the development of curriculum and dialogue on issues of interest. Initiatives among professionals are taking place alongside trends that place learning more under the control of learners. How far this latter development will go towards actualizing the principles of access, voluntary participation, and self-directedness will be determined by the continuing success of the open source movement.

Many educators are using Web 2.0 tools in their teaching. These tools are incorporated into blended or fully online courses to facilitate learning, team building, and the co-construction of knowledge. Learners can continue using these tools after they complete a course or a workshop. Thus, Web 2.0 provides methods and opportunities for adult learners to view learning as extending beyond the classroom (King, 1998). There are now numerous documented efforts of adult educators exploring blogs, chats, wikis, and social networking sites in their everyday activities (Weinstein, Rocco, & Plakhotnik, in press, 2010). Less well understood, but of clear importance, is the growth of free online content including several thousand online courses offered by leading universities and free online computational tools like alphawolfram.com. Soon many adult educators will offer a level of mediation between the learner and the information ecosystem. In this arrangement, professional educators may provide guidance to self-directed learners who can draw on a munificence of content.

The inclusion of Web 2.0 in adult education seems appropriate in light of Lindeman's (1926) view of adult education as providing an environment for new methods and incentives for informal self-directed learning. Certainly, the new methods for content creation such as blogs and wikis create incentives for learning more about the actual subject of the content, how to use the tools to store the content, and how to collaborate with others. Learners pursuing these activities embody Knowles' (1984) assumptions about the adult learner as self-directed, problem focused, building on past experience, and a voluntary participant in learning projects. The information ecosystem with its multitude of interactions between individual learners, collaborative communities of learners, and content within the information system of Web 2.0 brings to life Illich's (1973) vision of learning webs. Learners pursuing solutions to problems, creating knowledge, and investigating personal, professional, and spiritual questions is the learning web Illich envisioned.

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**College of Education and GSN  
Research Conference  
Symposia**

## Symposium 1: Teaching and Learning in a Virtual World

### Chairperson Information:

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### Justification

#### *Background*

In today's world we are entering many social, financial, political, and educational transitions. Technology and Internet have revolutionized and redefined these basic factors of life. *YouTube* now has political powers used by its members and visitors to voice out oppression; *Facebook* and *Twitter* have re-defined social relationships, and the use of electronic mailing (e-mail) and Instant Messaging have changed the way we communicate. Educators, administrators, and curriculum writers are now pressured more than ever to accommodate to this evolution of technology and rethink pedagogy.

As teaching and learning becomes increasingly dependent on the use of technology, there is a need to ensure that the practices employed are timely, engaging, and efficient. This presentation will focus on using the internet as an interactive teaching and learning tool with particular emphasis on the use of virtual environments such as Second Life®. Topics discussed will include how the use of virtual environments can be used to enhance pedagogy, motivate students, augment student-teacher and student-student interaction, promote global learning, increase possibilities for cross-linguistic communication and language acquisition opportunities, and promote innovative teacher education outside of the confines of the traditional classroom. Challenges to the uses of virtual environments in education will also be discussed as well as future possibilities for program development and delivery. A demonstration of Second Life® will be included.

#### *Virtual Worlds in Education*

Teachers have long been incorporating interactive and creative activities in their classroom and courses. The belief behind this is that interactive and creative activities generate motivation, which in turn will result in improved learning. Computer Assisted Language Learning (CALL) is viewed as an aid for teachers that facilitates the language learning process and has been shown to increase motivation. Bransford et al. (1990) argue that "In many instructional settings, students acquire only facts rather than acquire tools for problem solving. They often have not experienced the kinds of problems that make information relevant and useful, so they do not understand the value of this information" (p. 122). Through virtual worlds a different level of experiences, problem solving, and learning can be achieved. As information is nowadays available online to anyone with an internet connection, students can focus more on finding tools they can use for problem solving rather than focus on acquiring facts (Bransford et al. 1990). A study conducted by Tuzun et al. (2009) sought to measure the effects that computer games have on achievement, intrinsic and extrinsic motivations in a 24 student primary level classroom. Results showed that students made learning gains by participating in the game-based

learning environment. Students demonstrated significant higher intrinsic motivations and lower extrinsic motivations when learning in the game-based environment (Tuzun et al., 2009).

School curriculum and games have a contradictory relationship that has formed a gap. The more interesting games are to students, the less interesting and more boring school curriculum appears to be, hence increasing the gap between classrooms and video games. Intrinsic motivation has become synonymous with computer games, whereas extrinsic motivation has become synonymous with the classroom (Prensky, 2003). Students seem to have positive attitudes towards their games with an average of 10,000 hours played by the age of 21 (Prensky, 2003). Additionally, people who play games become interested, competitive, cooperative, and actively seek information and solutions, within a results-oriented environment. It therefore makes sense to try to merge the content of learning with the motivation of games (Prensky, 2003). Virtual Environments (VE) are one such useful technique in the development of language learning, they benefit in that they enhance ones motivation to learn and acquire a language. This is because VE's are ultimately simulations that can be comparable to games, and simulations share the same intrinsic motivational appeal as games (Griffiths, 1996), hence a greater motivational level when learning is associated with games.

Research showing the benefits of Web 2.0 and virtual world technologies is being conducted across disciplines, such as information systems (Harris & Rea, 2009), marketing and training platforms for businesses (Abrams, 2007), and educational and research environments for academics (Harris, Lowendahl, & Zastrocky, 2007). However, the capacity of virtual worlds is underutilized in educational settings. Potential benefits of virtual environments in educational contexts include: blending the real and virtual worlds, enhancement of students' intrinsic motivation; industry-relevant skill transfer, and innovative education that transcends traditional pedagogical practices (Dreher, Reiners, Dreher, & Dreher, 2009).

In 2003, Linden Lab launched their developed virtual world accessible via the internet, Second Life®. This world is an online three dimensional world where users can interact and move in simulated spaces. Most commonly text based and voice chat modes are used for communication and interaction. Within the virtual environment, avatars are used which represent and are controlled by individuals. Currently Florida International University has an island in Second Life® that can be accessed by students and faculty. A few classes are taught exclusively in this virtual world that is managed by FIU Online. Our presentation will include a tour of the online campus and a demonstration of how faculty and students might take advantage of this and other locations within Second Life®.

Due to the dexterity, adaptability, and flexibility of online environments, classrooms that incorporate online virtual world technology will experience an advanced and improved method of learning that is compatible with today's generation of digital learners. The use of virtual environments in classrooms will open up promising possibilities and avenues of learning for the language learner.

### **Format of the Symposium**

Chairperson: Elsie E. Paredes, Doctoral Candidate, FIU (5 minutes)

Title: Virtual Environments

First Speaker: Abdulaziz Abal, Doctoral Candidate, FIU (10 minutes)

Title: Future Classrooms: The Timeliness of Virtual Environments and Motivating Digital Learners.

Second Speaker: Elsie Paredes, Doctoral Candidate, FIU (10 minutes)

Title: Virtual Environments for Diversity Education

Third Speaker: Aixa Perez-Prado, Office of Accreditation, FIU (10 minutes)

Title: Interaction, Connection, and Teacher Education in a Virtual World

Demonstration of Second Life (10 minutes)

Questions and Answers (15 minutes)

### **Presentation Summaries**

First Presentation: Abdulaziz Abal

Future Classrooms: The Timeliness of Virtual Environments and Motivating Digital Learners.

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For many decades technology has been researched and used in facilitating education, and since the introduction of the Internet we have excelled and advanced in an unprecedented pace. The marriage of software and Internet has revolutionized Computer Assisted Instruction (CAI) and Computer Assisted Language Learning (CALL) to what is now known as Virtual Environments (VE). As our students have naturally and willingly adapted to these technologies, it makes sense that administrators, policy makers, and educators incorporate modern technology with modern instruction. This presentation will discuss the timeliness and adaptability of VE's in education. It will also discuss the relationship between VE's and motivation, as well as a look at the future of pedagogy using modern technology.

#### *Virtual Environments and Education*

Virtual environments are online three-dimensional worlds where users can interact and move in simulated 3D spaces and where most commonly text-based and voice chat tools are used. Within these 3D environments avatars –which represent and are controlled by real people– are used to interact with other avatars and the environment (Dickey, 2005). Through the use of VEs one has immediate access to libraries, games, movies, courses, and schools. Leading universities such Harvard and MIT have noticed the potential virtual environments have on advancing education, and took the initiative by building campuses and offering courses for students. FIU has recently joined this trend and currently has 170 students registered in courses offered on Second Life.

#### *Virtual Environments and Motivation*

In general motivation is seen as a psychological quality that drives people to achieve a goal. Motivation has also generally been established as a significant factor in learning. High



levels of intrinsic motivation have frequently been connected with higher educational achievement (Willing, 1988). In the area of language learning, research shows that motivation influences how often students use their second language learning strategies, how positively it affects students' achievement tests, and how high their proficiency levels become (Gardner, 1992; Ely, 1986). Tuzun et al. (2009) found that students made statistically significant learning gains by participating in the game-based learning environment. The students also demonstrated significant higher intrinsic motivations. Prensky (2003) asserts that people who play games become interested, competitive, cooperative, and actively seek information and solutions. Virtual Environments are places where games, methods, and curriculum can be merged and applied to better match our current students' interests.

#### *Technology and Future Pedagogy*

The fast paced development of technology has redefined basic factors of life, social relationships and communication, more importantly it is education that has seen a significant alteration. Educators, administrators, and curriculum writers are now pressured to accommodate to this evolution and to keep up with its fast pace. As VE and virtual reality have been around for the past 10 years and are now the center of learning and teaching, a newer type of reality has now begun to emerge; Augmented reality. Researchers have now taken this as their newest additional topic of interest.

Second Presentation: Elsie Paredes

Teaching and Learning in a Virtual World: Virtual Environments for Diversity Education

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As technological advancement and globalization continue to affect social and educational experiences, virtual environments (VEs) offer a multitude of possibilities in education. The use of technology can provide valuable learning experiences and opportunities for learners that take place beyond the traditional classroom instruction. The purpose of this presentation is to discuss the applicability of VEs for diversity education with a focus on language teaching and learning. Particular pitfalls and challenges will also be discussed.

#### *Diversity Education*

The U.S. Census Bureau projects that by the year 2050 about 50% of the population will be African American, Hispanic, or Asian (U.S. Census Bureau, 2008). This rapid change requires that teachers are able to understand the diverse needs of their students and include diversity in their teaching practices. Research has shown that a virtual space may bridge language learners into intercultural interaction where meaning and functional value can be used in service of language learning (Zheng et al., 2009). Second Life offers a unique environment where teachers and learners can immerse themselves and gain valuable knowledge and skills about diverse cultures by interacting with people around the world through voice chat, gestures, and text messaging. Also, residents have access to museums, libraries, shops, bars where they not only have a chance to interact with the people but also to experience their culture.

### *Language Teaching and Learning in Virtual Environments*

Second Life could facilitate language teaching and learning by integrating virtual reality into the curriculum. Through experience in a virtual world, interacting with others, and confronting the virtual reality collaboratively, language learners are able to expand their knowledge, construct meaningful personal understanding and gain communicative competence (Shih & Yang, 2008; von der Emde, Schneider, & Kotter, 2001).

Authentic communicative situations are critical to successful language learning (Canale & Swain, 1980). In SL, opportunities for real communication are available. Learners use language in a realistic environment where they can negotiate meaning and use communication strategies to overcome comprehension or production deficits.

Task-based language teaching fosters the development of accuracy in production (DeKeyser, 2001) by means of meaning focused-tasks. Communication tasks are used to provide systematic, meaningful and context embedded practice, which generate automatization of linguistic forms, comprehension, feedback, and modified production (Pica, 1994). In Second Life, transfer of conceptual knowledge into a virtual life setting can be made possible by means of ordering at a restaurant, shopping, chatting at a bar, and requesting information from locations that offer services. Instructors can supervise learners by using the remote-viewing camera function which would help ensure students maintain their assigned roles or perform their assigned tasks. Tasks performed in SL can be further expanded in the form of journaling, reports, and debates that learners generate after their exposure to SL.

### *Pitfalls and Challenges*

Technological requirements to run SL (a fast computer, a fast-speed Internet connection, and a good quality graphic card) and sufficient guidance and assistance are needed as students might not be familiar with SL. Also, incidents involving adult content, disturbance and misbehavior from other SL residents are potentially harmful.

Third Presentation: Aixa Perez-Prado, Ph.D.

Interaction, Connection, and Teacher Education in a Virtual World

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The creative use of virtual worlds can significantly increase the possibilities of meaningful interaction in the online classroom. Furthermore, these virtual worlds can enable educators to introduce and guide their students into a wide variety of virtual locations in order to explore and discover different interactive possibilities that would be impossible to recreate in the real world because of the expense and time involved in the process. In addition, teaching through virtual reality can increase the possibilities of a personal and interactive higher education experience to students who may be unable to attend a university due to a disability or other limitation.

### *Second Life and Interaction*

Second Life® is one virtual reality program that provides a large array of teaching possibilities to educators worldwide that provide connectivity between people, places and events in a way that completely transforms and enhances distance learning (Johnson, 2008). Those who use this system as an instructional tool refer to the virtual world teaching experience as teaching ‘inworld’. These faculty are able to create their own learning ‘islands’, rent existing locations, or use free spaces within the online world in order to meet with their students, conduct lectures and demonstrations, and guide students to create or discover their own learning materials through active and participatory learning experiences. By using Second Life®, learners and teachers are able to craft personal online personas in the form of avatars. These avatars can resemble the actual creator of the avatar, or look drastically different. Therefore, the very first aspect of the virtual world learning process begins with the learners reinventing their own identities for an online environment, choosing their appearances, and experimenting with the different movements and abilities that are available to them. Through the use of the avatars learners and the teacher can virtually meet one another online and teleport to locations in the virtual world that enhance the active learning possibilities of the students. Inworld activities include simulations, role plays, simulated interactions with historical figures or experts in the field being studied, and perhaps most importantly create a sense of togetherness and cohesion for a class full of learners that never meet face-to-face in a manner that email, instant messaging, and web-conferencing cannot come close to replicating. This sense of “being there” (Bowman & McMahan, 2007) is what differentiates the use of virtual worlds from the use of other online teaching tools.

### *Teacher Education Inworld*

Although relatively few studies have yet to be conducted on the use of virtual worlds for university teaching, it can be noted that the majority of people using these worlds for professional purposes are educators and there are currently thousands of educational experiments and projects being conducted in Second Life® (Bronack & Riedl, 2006). It seems a likely fit that teacher educators would be at the forefront of discovery for this learning tool that promises to offer almost limitless possibilities for diverse student populations worldwide by giving them access to experiences in the virtual world that can be perceived as almost as good as, and sometimes better than, the real thing.

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## Symposium 2: Qualitative Insights: Coding and Data Analysis Techniques

### Chairperson Information

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### Justification

When embarking on a new qualitative study, researchers spend time on developing the best research questions for their topics and then designing an appropriate data collection strategy. Many times, more novice researchers exert a lot of their energy in these initial study design steps and do not think about data coding until after they have commenced or even completed data collection. However, coding plays a critical role in what research questions to use, how to ask those questions, and how to best collect and prepare the research data because all these aspects are interrelated as part of the overall qualitative research study design. Therefore, the purpose of this symposium is to present three qualitative coding approaches that move beyond the paper and pencil coding activities that many novice researchers learn within their graduate qualitative research courses.

There are dozens of coding methodologies available in the qualitative research literature. Rubin and Rubin (2005) suggest dividing interview data units for analysis, recognizing concepts, themes, and events, and then developing a coding map. Bogdan and Biklen (2003) suggest searching data for patterns and developing coding categories, which could include the following types of codes: setting/context, definition of situation, perspectives held by participants, subjects' way of thinking about people and objects, process, activity, event, strategy, relationship and social structure, narrative, or methods. Both methodologies suggest developing a final coding map for application to all the qualitative data and offer hierarchical coding strategies for complex coding where codes, concepts, or themes are included within others.

The goal of this symposium is to present and move beyond these more common types of coding practices and incorporate a variety of technological tools that allow researchers to code and analyze data in new ways. Attendees will receive an overview of common coding strategies, and then follow the speakers in applying that knowledge to coding and data analysis using three different types of software that are accessible by most computer users. Finally, the session will end with questions and answers to help attendees make connections between the three coding and analysis presentations and their current research activities.

### Format of the Symposium

Chairperson: Jacqueline Peña, Institutional Effectiveness Coordinator, FIU (5 minutes)

Title: Qualitative Research in the 21<sup>st</sup> Century

- An overview of common coding and analysis strategies in qualitative research
- Introduction of presenters and their contributions to the field

First Speaker: France Gaele Prophete, College of Education Graduate Student (15 minutes)

Title: Hierarchical Coding, Data Storage, and Retrieval Options

Peña, J., Prophete, F. G., Pineda, F., Grigorescu, C., & Behairy, M. (2010). Qualitative insights: Coding and data analysis techniques [Symposium]. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 109-112). Miami: Florida International University. [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

Second Speaker: Fernanda Pineda and Claudia Grigorescu, (15 minutes)  
 Title: Comme si or comme ça?: A coding comparative

Third Speaker: Maram Behairy (15 minutes)  
 Title: Qualitative Coding of Video Data Using iMovies 2008

Questions and Answers (10 minutes)

### **Presentation Summaries**

First Presenter: France Gaelle Prophete  
 Title: Hierarchical Coding, Data Storage, and Retrieval Options

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According to Rubin and Rubin (2005), data analysis, rather than beginning after data collection, should begin during the planning phase of a study. In doing so, the researcher has a better idea of the kind of data to collect in order to fully address the research questions and, as a result, determine the questions that should be asked during the interview. (Rubin & Rubin, 2005). Additionally, it is extremely helpful to take notes and jot down patterns or interesting quotes from the interviews as they take place. Usually, these notes can serve as a starting place for possible codes or related concepts. Once an interview has been transcribed, many researchers choose to print it out the transcript and begin coding with pencil and a notepad.

There are several different ways researchers may choose to organize their codes. One of the methods outlined by Bogdan and Biklen (2007) is “Subjects’ Ways of Thinking about People and Objects” (p. 175). Using this method, the researcher is primarily concerned with finding repeated values, phrases, perceptions, and attitudes. Using this method, the researcher may begin to notice how the codes are related to each other. In some cases, you may notice positive versus negative values. Other times, there may be a hierarchical relationship. Here is an example of a hierarchical relationship between the codes from an interview.

Table 1.  
*Hierarchical View of Coding Categories*

- I. Ethnic Identity
  - A. Haitian
    - 1. Cultural Values
      - a. Respect
      - b. Discipline
  - B. Traditions
    - 1. “*soup joumou*” on New Year’s

Once the relationship between the coding categories has been determined, the researcher has several options on how to store and retrieve data. For the computer savvy qualitative researcher, using a database software such as Microsoft Access or Filemaker can be very useful for storage and retrieval of large amounts of data. By using such a software, the researcher can have more flexibility in how they will retrieve the data. You can create queries that allow you to compare data units or compare different participants' perspectives. By the end of this presentation, participants should have an understanding of hierarchical coding and the different options available to them for qualitative data analysis.

Second Presentation: Fernanda Pineda and Claudia Grigorescu  
Title: Comme Si or Comme Ca?: A Coding Comparative

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In an era where technology and software oftentimes become the *laissez faire* of our lives, every now and then we may wonder about their accuracy or efficiency in our everyday tasks. Academia sets a perfect scenario for the search and research of new technology to satisfy and fulfill a multiplicity of institutional functions. Whereas quantitative researchers may have well-established statistical software (i.e., SPSS) for their analytical purpose, qualitative researchers, because of the nature of their studies generally, continuously search for software to meet their research needs (Brent, 2002; Denzin & Lincoln, 2005). Coding, for instance, can be a rather extensive and time consuming endeavor when done the traditional way, but it remains at the core of qualitative research and therefore a must (Carley, 1993; Taylor & Bogdan, 1984; Saldana, 2009). In light of new technologies, the desire to keep up with a fast paced world, and in an effort to improve effectiveness, software developers and researchers alike have joined the foray for the 'right' research product (Feldman, 1995). This mini exercise will minutely delve into the world of comparatives, between a simple, coding software and a traditional way of coding.

The main purpose of this mini study is to obtain a few insights into the benefits and challenges (pros/cons) of the coding software Diction and the more traditional, by hand, coding. "Diction is a language analysis software program that searches a text passage for occurrences of tokens belonging to five general categories (certainty, activity, optimism, realism, commonality)" (<http://www.content-analysis.de/software/quantitative-analysis>, 2010). Originally designed for the field of psychology, the software has pre-set categories with which to do tagging and the text analysis. The bible has caused intra and interpersonal contention amongst many, and as such the authors believed that the categories set by Diction can readily be applied or used for analyzing a bible text. The authors also want to emphasize that the exercise is namely for the sole purpose of coding, and comparison between two coding techniques. A random passage will be selected for coding. The traditional coding technique will be done first using the pre-set categories and the text will then be analyzed using Diction.

Third Presentation: Maram Behairy

Title: Qualitative Coding of Video Data Using iMovies 2008

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The use of video for data collection is a growing method in qualitative research. While newer versions of software for qualitative data analysis have added features for analyzing video data, these software programs are not always readily available for all researchers. A researcher can theoretically transcribe the video data, as he would transcribe an audio tape recording, with an added column for significant visual cues. Another alternative for video data analysis to the expensive software programs is the use of iMovies available on any Mac computer.

Using iMovies 2008, a researcher can skim the raw footage and add word tags to segments of video. When a segment of video is tagged, the code appears on the footage as a colored line and the code phrase created appears as the researcher skims through the data. Important for qualitative data analysis, the iMovies allows the researcher to tag the same segment or overlapping segments of video with multiple codes. An important feature is the ability to filter the codes and only see the video segments for the codes desired. Unfortunately, one of the downsides of coding with iMovies is the inability to categorize the codes into themes. However, the researcher can supplement the use of iMovies with her research notes and eventual written manuscript of the research results. iMovies provides innovative researchers the avenue to analyze video data without the expense and complication of some of the qualitative data analysis software out there today.



## **Symposium 3: “Touchy Subject”: Dealing With Sensitive Populations in Research**

### **Chairperson Information:**

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### **Justification**

Research has infinite possibilities of resources and can be conducted on things, animals and people. Whether qualitative or quantitative, the way in which research data are collected has numerous options. Types of data collection can vary from observations and interviews, to having participants actively engage in activities such as interventions and self-reporting surveys. Settings of research can be controlled environments, such as a laboratory or any existing environment where participants are accessible. Some examples of accessible environments include private homes, classrooms, prisons, medical facilities and residential drug rehabilitation centers.

There are special challenges and considerations when dealing with participants that are in a medical facility or a residential drug rehabilitation center. During this symposium we will present the challenges of these two populations and their unique settings.

The objectives for this symposium are as follows:

1. The audience will be able to describe the challenges of researching participants in a medical setting and a residential drug rehabilitation facility.
2. The audience will be able to describe the challenge of recruiting TB patients for research.
3. The audience will be able to describe TB patients’ willingness to discuss their illness and spirituality.
4. The audience will be able to explain ethical and moral issues concerning these populations.
5. The audience will be able to summarize strategies to help reduce these challenges.

### **Presentation Summaries**

First Presentaion: Vivian Bango-Sanchez and Bonnie J. Kissel  
Mothers in a Residential Rehabilitation Facility for Drug Addiction and Substance Abuse

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Rocco, T. S., Bango-Sanchez, V., Kissel, B. J., & McDade, R. (2010). “Touchy subject”: Dealing with sensitive populations in research [Symposium]. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 113-117). Miami: Florida International University. [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

Recruiting mothers' residing in a drug rehabilitation facility for participation in a study presents a variety of challenges to the investigator. Some of the participants may be there voluntarily or they may be there because of a court order.

Some of the challenges for the investigator include:

- Cross contamination
- Time Issues
- Addressing special needs of the participant
- Lack of Institutional Support
- Variable Client Census
- Retention Problems
- Conflicting Schedules

When dealing with court ordered participants there are additional considerations that include:

- Advantages accrued from the study will not impair any advantages of the environment of the residential facility.
- There is no more than minimal risk
- The Risks involved in the study are equal for court mandated and non court mandated subjects.
- Participating in this study will have no negative judicial effects for court mandated subjects.
- This study does not require any follow up intervention.
- All participants have equal opportunity to be randomly selected for participation in this study.
- Information will be presented in language that is understandable to the subject population.

When researching the drug addicted and substance abusing populations, self-report measures are necessary to understand the complexity of causal and correlational attributes of drug abuse. Also it is necessary to determine what can be done to improve valid self-reporting since there are important issues concerning validity and reliability. Self-reports were designed to assess the prevalence and frequency of illicit drug use in representative samples of the population. They were also designed to examine the correlates of illicit drug use and inform prevention and intervention efforts (NIDA, 1997).

When dealing with the population of drug addiction and substance abuse, there may be under or over reporting of use (NIDA, 1997). Following are three general categories to take into consideration concerning validity threats of self-reporting.

- The actual questions:
  - wording, interviewer expectations and degree of anonymity
  - This is considered a situational factor.
- The accuracy of the responses:
  - not having complete recall, the physical condition time of the survey (sober or intoxicated), memory loss due to drug use, fear of repercussions and amount of time lapsed between events and surveys (lifetime vs. recent)
- Not wanting to provide information:
  - avoiding social disapproval, fear of generating bias, inaccurate reporting

The more highly stigmatized and negatively sanctioned a behavior the stronger the tendency to deny having engaged in it. This is considered a cognitive factor.

#### Solution Strategies:

Survey researchers recognize the need to design methods that elicit accurate and truthful reporting of drug use, experience and attitudes. This can be done by:

- A guarantee of anonymity and confidentiality
- Establishing a rapport (allay fears)
- Making questions less specific
- Concentrating on recent events
- Engaging in more systematic and rigorous scientific studies to improve the validity of self-report (urine analysis, hair analysis, breathalyzer test)

Providing a greater range of information for use in designing intervention strategies, survey research can provide a more thorough profile of drug use and abuse among a broader cross-section of the population. The greater challenge is how to convince survey respondents to provide accurate information.

#### Second Presentation: Regina McDade

The Relationship Between Spirituality and TB Medication Adherence Among African Americans and Haitians.

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In the African American community, TB is considered a dirty and mysterious disease that affects “bad” people; as a result, TB patients often experience stigmatization from family and friends (Jenkins, 1966; Kelly, 2000). Spirituality and religion have always been an important part of African American culture. In the African American culture, spirituality and spiritual beliefs provide comfort, support, and a coping mechanism. African Americans’ spirituality is important in medication adherence, understanding disease, coping, and making treatment decisions (Johnson, Elbert-Avila, & Tulskey, 2005).

In the Haitian community, TB is considered a shameful disease. Patients diagnosed with TB face social exclusion, rejection by family and friends, and placement in quarantine (Farmer, Robin, Ramilus, & Kim, 1991; Heurtelou, 2001). The majority of Haitians are Catholic, with a small number practicing other religions (Chierici, 1991; Desrosiers & Fleurose, 2002; Pamphile, 2001). Lower-class Haitians are more likely to acknowledge the belief and practice of Voodoo, while upper-class Haitians typically belong to the Catholic Church and deny practicing Voodoo (Chierici, 1991; Desrosiers & Fleurose, 2002).

A large percentage of the TB patients admitted to the county hospital are Haitian and many do not speak English or read literature written in English or Creole. The consent has been translated into Creole and back translated into English by two Creole speaking healthcare

workers. A trained interpreter will assist the researcher in explaining the purpose of the study, obtaining consent to participate in the study and verbally if appropriate administering the SPS instrument at the hospital, out patient clinic and health department.

When conducting research with different cultural groups diagnosed with a stigmatized disease such as TB the following may be threat to the research outcome:

- Gender, racial identity, social class, and shared experiences may have an influence on the interview process and affect the willingness of the patients to participate in the research.
- Problems of insider versus outsider status may be an issue during the interview with Haitian TB patients
- Frontstage vs. backstage responses
- Discussion of the practice of Voodoo not disclosed.

#### Solution Strategies:

When conducting research with different cultural groups the researcher may illicit more research information by the following:

- Develop a relationship of trust
- Ensure confidentiality
- Use a community gatekeeper
- Keep all questions short and simple
- Focus on benefits to their health

When conducting research on sensitive populations, as mentioned above, one needs to consider the conditions in which the self-report was obtained more so than the validity of the self-report survey Midanik (1989).

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## **Symposium 4: Student Socialization and Collaboration: Exploring a Community of Emerging Scholars**

### **Chairperson Information:**

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### **Justification**

Technology coupled with changing societal expectations has created new expectations in the field of academia. The demands on professors to *publish or perish*, in addition to teaching requirements, and the need for generating grants have contributed to a new world in academia. As a result, students face the challenge of making the most of the doctoral studies programs in order to prepare them to be a part of the scholarly community. Topics of concern to doctoral students that will be addressed in this symposium are: (a) research related activities; (b) fostering productive student and faculty relationships; (c) developing student support networks; and (d) awareness, involvement, and service in the respective field of study.

A heavy emphasis on research related activities is a key component of most doctoral programs. Coursework is required both in the quantitative and the qualitative methodologies. Many doctoral students may be unaware of important considerations for performing research during their program. Doctoral student involvement in research during their graduate programs contributes positively to their future success as emerging scholars (Bauer & Green, 1994).

While research is important, mentoring is an integral part of fostering productive student and faculty relationships. Tenebaum, Crosby, and Gliner (2001) argue that productive mentoring is an essential feature of successful doctoral student experiences which benefits the mentee, the mentor and the organization. There are many positive correlates to healthy mentoring relationships, like increased productivity, satisfaction with the doctoral school experience, and commitment to the academic field (Tenebaum et al., 2001).

In addition to mentoring, development of student support networks, whether formal or informal, has been reported to improve student outcomes (Gardner & Barnes, 2007) in doctoral programs. As Golde (2005) argues, for doctoral students, the department, rather than the institution, is the main force in shaping their academic experiences and therefore more focused support networks among the students of the same discipline who are linked with shared experiences can improve their chances of success. Students who participated in Gardner and Barnes (2007) study stated that the help they receive from more senior doctoral students, as well as faculty, is significantly beneficial in their professional development.

Finally, awareness, involvement, and service in the respective field of study enhance the doctoral students' future probability of success as an emerging scholar (Austin, 2002). Students participating in Gardner and Barnes (2007) study reported that getting information about different academic conferences and workshops from the faculty has encouraged them to be more active in their professional organizations and therefore provided them with better opportunities for professional development. Furthermore, being active in the academic community and attending professional conferences and workshops provided an opportunity for doctoral students to network with scholars in their field, understand the topics of study in their area, and get valuable feedback on their own research (Gupta & Waismel-Manor, 2006).

Soltan Zadeh, M., Nesbit, L., Moores-Abdool, M., Unzueta, C., & White-Lindsey, C. (2010). Student socialization and collaboration: Exploring a community of emerging scholars [Symposium]. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 118-122). Miami: Florida International University.  
[http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

The above mentioned components are significant aspects of the doctoral students' socialization process as newcomers to their academic and professional fields and therefore an understanding of students' experiences in each of these areas can help us better plan and improve these experiences and their chances of success. This symposium provides a venue for exploring the skills and dispositions that are essential for doctoral students to be successful as emerging scholars.

### **Format of the Symposium**

Introduction by Chair (5 min)  
 (4) Mini-presentations (20 min)  
 (4) Break-out/ Focus Groups (25 min)  
 De-briefing (10 min)

### **Presentation Summaries**

First Presentation: Leslie Nesbit  
 Research Related Activities

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Research universities achieve their research goal by depending partly on the work of graduate students who help professors as research assistants (Austin, 2002). These graduate students become important to the entire field of research as they in turn become a part of the research faculty of universities after completion of their doctoral degrees. The skills needed to become good researchers can only be gained by practice. Collaborating on research activities while studying in graduate school can help doctoral students succeed later in the academic life. These collaboration efforts allow students to be a part of a research team which models what is done by education researchers in the field, and collaborating on research allows students to see things through different lenses and provides beneficial learning experiences through different perspectives.

Socialization into the field of academia begins as early as the experience of a graduate student (Austin, 2002). A major part of the training to become a successful college professor begins as a part of the graduate student's training as a graduate assistant or as a research assistant. Doctoral students quickly adopt values that are in line to their mentors or other veteran professors they work with (Gardner, Hayes, & Neider, 2006). Individuals who are more actively involved in their doctoral experiences accommodated more easily to the world of academia, and they also showed greater levels of productivity (Bauer & Green, 1994). This symposium will outline the importance of the research experience for the doctoral students at FIU in the College of Education.

Second Presentation: Maryam Soltan Zadeh  
 Fostering Productive Student and Faculty Relationships

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Mentoring is an integral part of fostering productive student and faculty relationships. As aspiring professionals, graduate students look to academic instructors and advisors to make sense of academic work, provide opportunities for interaction, and in clarifying academia as a whole; receiving guidance as in an apprenticeship (Austin, 2002). Tenebaum, Crosby, and Gliner (2001) argue that productive mentoring is an essential feature of successful graduate experiences which benefits the mentee, the mentor and the organization. There are many positive correlates to healthy mentoring relationships, like increased productivity, satisfaction with the graduate school experience, and commitment to the academic field (Tenebaum et al., 2001). Johnson further asserts that doctoral students' relationship with their major advisor is the strongest determinant of their satisfaction with their graduate experience, and specifically their dissertation work. The availability of faculty is a key element in providing socialization opportunities. The intensity of mentoring, advising, and the explicitness of feedback from faculty must occur in a recursive manner, which can assist graduate students in navigating through the socialization process. As graduate students face the challenges of higher education, mentoring and advisement can prevent them from making their own sense of their graduate experience and rather provide a model of professional socialization through rich dialogue, observation, and explicit feedback. As research shows that faculty and department chairs are prone to overestimate the quality of their mentorship (Dickinson & Johnson, 2000), a productive dialogue among students and faculty is an essential requirement for a credible understanding of doctoral students experiences in graduate school (Johnson, 2007). In this symposium we aim to discuss mentoring relationships and their role in doctoral students' success as an essential aspect of doctoral students' experiences in FIU's College of Education.

Third Presentation: Whitney Moores-Abdool and Caridad Unzueta  
Developing Student Support Networks

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Florida International University

Developing student support networks are critical factor for doctoral student program completion. Golde (2005) contends that inadequate integration into the doctoral program is one of four factors that contribute to the high rates of student attrition ranging from 40-50%. The arduous nature of a doctoral program which includes factors like a long rate to program



completion, and the requirement to collaborate with faculty on the dissertation contributes to an increased need for intensive student supports. Gardner and Barnes (2007) found that doctoral students who participated in campus lectures, had opportunities to network with faculty and other doctoral students, and engaged in professional development opportunities experienced enhanced potential in both job searches and future collaborative research. Additional benefits accruing from activities like conferences, included the ability to make connections to the field based on what was being learned in the university classroom and the shaping of professional dispositions for professional opportunities (Gardner & Barnes). This symposium will delineate student support networks within the FIU University system, as well as those within the FIU College of Education.

Forth Presentation: Cheryl White-Lindsey  
Awareness, Involvement, and Service in the Respective Field of Study

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Graduate student programs account for a large population of the enrollment in a university; however, the level of involvement of these students in higher education organizations and activities reflect limited socialization (Gardner & Barnes, 2007). According to Austin (2002), awareness, involvement, and service in the respective field of study can significantly enhance the master and doctoral students' future probability of success as an emerging scholar. Within this context, graduate students socialization can be translated to participation in departmental graduate student organizations (Gardner & Barnes, 2007), professional conferences (Gupta & Waismel-Manor, 2006), and mentoring an advising sessions (Austin, 2002). Gardner and Barnes (2007) further reported that graduate students who receive information about academic conferences and workshops from faculty were more actively involved in professional organizations and professional development. Active involvement in the academic community provides an opportunity for graduate students to network with scholars in their field, understand the topics of study with clarity in their respective field, and get valuable feedback on their own research (Gupta & Waismel-Manor, 2006). In this symposium we aspire to discuss socialization opportunities for graduate students within the FIU University system, as well as those within the FIU College of Education across three main areas: awareness, involvement, and service.

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# Appendices

**The 9th College of Education & GSN Research Conference 2010 Program**

**The 10th College of Education & GSN Research Conference 2011 Call for Papers**

**The 10th College of Education & GSN Research Conference 2011 Call for Symposia**

The Ninth Annual College of Education and  
Graduate Student Network  
Research Conference  
Saturday, April 10, 2010



*The Cornerstones of the College of Education:  
Honoring Inquiry, Promoting Mentoring, and Fostering  
Scholarship*

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The purpose of the Florida International University Annual College of Education and Graduate Student Network Research Conference (COERC) is to enhance the existing research culture. The conference provides a meaningful vehicle for the preparation, mentorship, and presentation of scholarly work by students, faculty, and alumni.

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	8:00 – 8:30 a.m. Registration & Light Refreshments	GC 243
	8:30 – 9:15 a.m.	GC 243
<p><b>Welcome</b></p> <p>Tonette S. Rocco <i>Chair, Conference Steering Committee</i></p>		
<p><b>Opening Keynote:</b> The Role of Colleges of Education in their Communities What should the relationship be between colleges of education and the surrounding community? What does it mean to be engaged with the community?</p> <p>Belle S. Wheelan, Ph.D. <i>President, SACS</i></p> <p>Dr. Wheelan currently serves as President of the Commission on Colleges of the Southern Association of Colleges and Schools and is the first African American and the first woman to serve in this capacity. Her career spans 35 years and includes the roles of faculty member, chief student services officer, campus provost, college president, and Secretary of Education. In several of those roles, she was the first African American and/or woman to serve in those capacities.</p>		

9:20 – 10:20 a.m. <i>Symposium 1 &amp; Concurrent Sessions 1 &amp; 2</i>		
Symposium 1	<b>"Touchy Subject": Dealing With Sensitive Populations in Research</b>	GC 243
	<p><i>Chair:</i> Tonette S. Rocco, Florida International University <i>Discussants:</i> Vivian Bango-Sanchez, Bonnie J. Kissel, and Regina McDade</p> <p>Research has infinite possibilities of resources and can be conducted on things, animals and people. Whether qualitative or quantitative, the way in which research data are collected has numerous options. Types of data collection can vary from observations and interviews, to having participants actively engage in activities such as interventions and self-reporting surveys. Settings of research can be controlled environments, such as a laboratory or any existing environment where participants are accessible. Some examples of accessible environments include private homes, classrooms, prisons, medical facilities and residential drug rehabilitation centers. There are special challenges and considerations when dealing with participants that are in a medical facility or a residential drug rehabilitation center. During this symposium, we will present the</p>	

	challenges of these two populations and their unique settings.	
Session 1	<b>Communities of Practice</b> Moderator: Linda Bliss	GC 305
<p><i>The Process of Becoming a Physics Expert from the Perspective of University Physics Professors:</i> Idaykis Rodriguez, Florida International University</p> <p><i>Class in Classrooms: The Challenges Public Librarians Face as Border Crossing Educators</i> Eduardo Hernandez, Florida International University</p>		
Session 2	<b>Learning and the Family</b> Moderator: Kim Cole	GC 314
<p><i>Effects of Contingent Maternal Imitation vs. Contingent Motherese Speech on Infant Canonical Babbling</i> Maria I. Bendixen and Martha Pelaez, Florida International University</p> <p><i>Sexual Health Education and Family Planning: A Vital Component of the Healthy Start Program</i> Mechell Davis, Donna Brown, Ruth Lazard-Germain, Mini George, and Sonia Shirley, Florida International University</p>		

<b>10:25 – 11:25 a.m.</b> <b>Symposium 2 &amp; Concurrent Sessions 3 &amp; 4</b>		
Symposium 2	<b>Teaching and Learning in a Virtual World</b>	GC 243
	<p>Chair: Elsie E. Paredes, Florida International University  <i>Discussants:</i> Abdulaziz Abal and Aixa Perez-Prado</p> <p>As teaching and learning becomes increasingly dependent on the use of technology, there is a need to ensure that the practices employed are timely, engaging and efficient. This presentation will focus on using the internet as an interactive teaching and learning tool with particular emphasis on the use of virtual environments such as Second Life®. Topics discussed will include how the use of virtual environments can be used to enhance pedagogy, motivate students, augment student-teacher and student-student interaction, promote global learning, increase possibilities for cross-linguistic communication and language acquisition opportunities, and promote innovative teacher education outside of the confines of the traditional classroom. Challenges to the uses of virtual environments in education will also be discussed as well as future possibilities for program development and delivery. A demonstration of Second Life® will be included.</p>	
Session 3	<b>Issues in Adult Education</b> Moderator: Maria Lovett	GC 305
<p><i>The Integrated Process of Engagement in Adult Learning</i> Cinthya C. Gutierrez, Sofia T. Baralt, and M. Brad Shuck, Florida International University</p> <p><i>The New Information Ecosystem and Opportunities for Adult Education</i> Marc Weinstein, Tonette S. Rocco, and Maria S. Plakhotnik, Florida International University</p>		

Session 4	<b>Language and Learning</b> Moderator: Martha Pelaez	GC 314
<p><i>Contrastive Rhetoric in Chinese and English Context: From Schemata, Cultural Schemata to Rhetorical Contrasts</i> Lianhong Gao, Florida International University</p> <p><i>Metacognitive Functions, Interest, and Student Engagement in the Writing Process: A Review of the Literature</i> Ruba Monem, Florida International University</p>		

<p><b>11:30 – 1:15 p.m.</b> <i>Lunch is served buffet style. Quickly and quietly get your lunch at the back of the room, find a seat, and prepare for a delightful keynote address.</i> GC 243</p>
<p><b>Lunch Keynote:</b></p> <p>Community engagement, the role of Colleges of Education within the university in terms of community engagement, and the connections between community activities and research.</p> <p><b>Mark B. Rosenberg,</b> <i>President, Florida International University</i></p> <p>Mark B. Rosenberg is the fifth President of Florida International University, one of the 25 largest universities in the nation. A political scientist specializing in Latin America, Dr. Rosenberg is the first FIU faculty member to ascend to the university's presidency; he has more than 30 years of higher education experience.</p> <p>From 2005 to 2008, Dr. Rosenberg served as chancellor for the Board of Governors of the State University System of Florida. The SUS enrolls more than 300,000 students, employs 10,000 faculty, and operates an \$8 billion budget. As chancellor, Dr. Rosenberg led the system's strategic development, financial planning and policy initiatives, working closely with Gov. Charlie Crist and Legislature to secure support for SUS priorities. Prior to becoming chancellor, Dr. Rosenberg was integrally involved in the expansion and development of FIU into a major public research university. As provost and executive vice president for academic affairs from 1998 to 2005, Dr. Rosenberg spearheaded the establishment of a law school in 2002 and a medical school in 2006. Under his leadership, FIU increased enrollment to 37,000 students, implemented major campus construction projects, and was invited to join the select national honor society Phi Beta Kappa. Dr. Rosenberg was also instrumental in moving FIU into the top tier of Carnegie Foundation research universities.</p> <p>Dr. Rosenberg's academic career began at FIU in 1976 as an assistant professor of political science. In 1979, he founded the FIU Latin American and Caribbean Center, which today is one of the nation's premier federally supported research and teaching centers focusing on the region. Dr. Rosenberg subsequently served as the founding Dean of the College of Urban and Public Affairs and vice provost for international studies.</p> <p>Dr. Rosenberg earned a B.A. in 1971 from Miami University of Ohio and a Ph.D. in political science with a graduate certificate in Latin American and Caribbean Studies from the University of Pittsburgh in 1976. He has written or co-edited seven books and numerous scholarly articles in leading journals. His latest book, <i>The United States and Central America: Geopolitical Realities and Regional Fragility</i> (2007), is a Harvard University project co-authored with Luis Guillermo Solis of Costa Rica. Governmental and media organizations have frequently sought Dr. Rosenberg's expertise on Latin America. He is a member of the Council on Foreign Relations, has testified before Congress numerous times, and has served as a consultant to the Department of State and the U.S. Agency for International Development.</p>

1:20 – 2:20 p.m. <i>Symposium 3 &amp; Concurrent Sessions 5 &amp; 6</i>		
Symposium 3	<b>Qualitative Insights: Coding and Data Analysis Techniques</b>	GC 243
	<p><i>Chair:</i>, Jacqueline Peña Florida International University  <i>Discussants:</i> France Gaelle Prophete, Fernanda Pineda, Claudia Grigorescu, and Maram Behairy</p> <p>When embarking on a new qualitative study, researchers spend time on developing the best research questions for their topics and then designing an appropriate data collection strategy. Many times, more novice researchers exert a lot of their energy in these initial study design steps and do not think about data coding until after they have commenced or even completed data collection. However, coding plays a critical role in what research questions to use, how to ask those questions, and how to best collect and prepare the research data because all these aspects are interrelated as part of the overall qualitative research study design. Therefore, the purpose of this symposium is to present three qualitative coding approaches that move beyond the paper and pencil coding activities that many novice researchers learn within their graduate qualitative research courses.</p>	
Session 5	<b>Adult Learning</b> Moderator: Marc Weinstein	GC 305
<p><i>Communities of Practice and Learning in a Senior Living Environment</i>  Carolyn Meeker, Florida International University</p> <p><i>Motivational Strategies for Correctional Practitioners</i>  Edele Desir and Chaundra L. Whitehead, Florida International University</p>		
Session 6	<b>Culture, Teaching, and Learning</b> Moderator: Ben Baez	GC 314
<p><i>"I'm Trying To Bring the Scores of My School Up, Man!"</i>  <i>Standardized Testing, Stereotypes, and High-Performing African American Elementary School Students</i>  Martin J. Wasserberg, Florida International University</p> <p><i>Two Educators' Experiences of Double Dose Reading Classes</i>  Victor Malo-Juvera, Florida International University</p>		



2:25 – 3:25 p.m. <i>Symposium 4 &amp; Concurrent Sessions 7 &amp; 8</i>		
Symposium 4	<b>Student Socialization And Collaboration: Exploring A Community Of Emerging Scholars</b>	GC 243
	<p><i>Chair:</i> Maryam Soltan Zadeh, Florida International University <i>Discussants:</i> Leslie Nesbit, Whitney Moores-Abdool, Caridad Unzueta, and Cheryl White-Lindsey</p> <p>Technology coupled with changing societal expectations has created new expectations in the field of academia. The demands on professors to <i>publish or perish</i>, in addition to teaching requirements, and the need for generating grants have contributed to a new world in academia. As a result, students face the challenge of making the most of the doctoral studies programs in order to prepare them to be a part of the scholarly community. Topics of concern to doctoral students that will be addressed in this symposium are: (a) research related activities; (b) fostering productive student and faculty relationships; (c) developing student support networks; and (d) awareness, involvement, and service in the respective field of study.</p>	
Session 7	<b>Issues in Teaching and Learning</b> Moderator: Charmaine DeFrancesco	GC 305
<p><i>Think before You Speak: Increasing a Student's Appropriate Verbal Responses during Classroom Instruction</i> Ruba Monem, Florida International University</p> <p><i>Adults Learning Math Online: A Surprising Harmony</i> Jennifer Hoyte, Florida International University</p>		
Session 8	<b>Access and Engagement</b> Moderator: Ann Nevin	GC 314
<p><i>Analysis of Haitian Parents' Perceptions of the Education of Their Children with Disabilities</i> Josee Gregoire, Florida International University</p> <p><i>General Curriculum Access: What Does it Mean for Students with Disabilities?</i> Whitney Moores-Abdool, Florida International University</p>		

3:30 – 4:00 p.m.  
*Award Presentations*  
GC 243

**Lorraine R. Gay Award for Excellence in Research/Scholarship**

Adriana McEachern  
Award for Best Graduate Student Paper

**Barnes & Noble Award**

Adriana McEachern  
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**GSN Award: Best Student Conference Paper 2010**

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**College of Education-Graduate Student Network (COE-GSN)**

Whitney Moores-Abdool, President, Graduate Student Network

**Closing**

Tonette S. Rocco,  
*Chair, Conference Steering Committee*

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An **anonymous local donor** also made a significant donation on behalf of the FIU College of Education. A special thanks to the individual who made this contribution.

\*\*\*\*\*

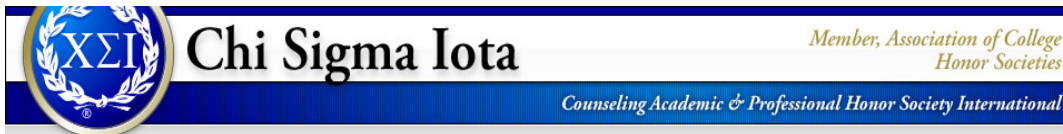
## CONGRATULATIONS ON THE 9TH COERC

Adriana G. McEachern, Ph.D., N.C.C., C.R.C., L.M.H.C.

Founder and Faculty Advisor

**DELTA IOTA CHAPTER**

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**Chi Sigma Iota**, the international honor society for professional counselors, counselor educators, and students promotes scholarship, research, professionalism, leadership and excellence in counseling, and recognizes high attainment in the pursuit of academic and clinical excellence in the profession of counseling.

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**561-568-1650 Cell**

**[patrick@ieeconcepts.com](mailto:patrick@ieeconcepts.com)**

**"When you change the way you look at things, the things you look at change"**

**"If at first an idea is not absurd, there is little hope it will change the world"**

**Albert Einstein**

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**Patrick Post  
President/CEO**



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To read our numerous letters of support from throughout America, click the "LETTERS" link on the top right side of our Home Page.

**Call for Manuscripts 2011 for the 10th Annual College of Education and Graduate Student Network  
Research Conference at Florida International University  
Saturday April 23, 2011**

**The Cornerstones of the College of Education: Honoring Inquiry, Promoting Mentoring, and Fostering Scholarship**

**Conference Mission:** The purpose of the Florida International University Annual College of Education and Graduate Student Network Research Conference (COERC) is to enhance the existing research culture. The conference provides a meaningful vehicle for the preparation, mentorship, and presentation of scholarly work by students, faculty, and alumni.

**Stewards of the Discipline, Reflective Inquirer, Mindful Educators:**

Decades of educational research indicate that the practice of educating our nation's citizens cannot be judged from a single vantage point. Individuals come to the educational enterprise with different needs and goals often addressed through educational research that weaves a tapestry between knowledge, theory, practice and possessing the habits of minds for showing curiosity and passion about learning through inquiry. We recognize the diverse applications of educational research and the behavioral, psychological, and cultural viewpoints that exist at local, national, and international levels. Conference participants are encouraged to consider the richness of the diverse content areas in education (school and non school based) serving children and adult students.

**The Lorraine R. Gay Award for Outstanding Research:** The award will be presented to the best paper authored by an individual student or group of students.

**Barnes & Noble Best Faculty-Student Paper Award:** The award will be presented to the best paper authored by a faculty-student(s) team.

**The College of Education Graduate Student Network Award:** The award will be presented to the best paper by an individual student or group of students who are GSN members.

**Who Should Submit:** All current and former FIU College of Education students and faculty are encouraged to submit manuscripts.

Manuscripts are welcomed from practitioners, students, and faculty from other institutions, universities, centers, institutes, and schools. Manuscripts may be submitted by single or multiple authors. Students are encouraged to submit manuscripts based on theses/dissertations or other scholarly work. Faculty and students are encouraged to submit work performed independently or in collaboration with colleagues.

**Manuscript Categories**

**Reports on Research:** Reports on research (qualitative, quantitative, or mixed methods studies) including thesis and dissertations with their implications for practice and research.

**Methods and Issues in Research:** Controversial and critical questions vital to research and practice, such as in research methods, ethics, the use of research in practice, practice-generated needs for research, and processes by which researchers determine the areas in which to conduct research. A description of the issue or summary of the points at issue should be presented.

**Perspectives in Practice, including theory, method, and literature reviews:** Questions and concerns regarding practitioners' work in various settings. This may include, but is not limited to practice in education and training programs in schools, corporate and community organizations, leisure activities for children and adults, or other extra-curricular activities. Manuscripts may address problems and/or solutions in areas of practice such as curriculum design, strategy selection, teaching and learning, or program implementation. They may also address how practitioners view research related to their concerns.

**Evaluation Studies or Action Research:** Reports on studies involving needs

assessment, priority setting, goal analysis, evaluation or other forms of applied research.

**Conference Timeline**

Manuscript Submission Deadline – **Monday December 13, 2010**

Authors Notified of Submission Status – **Monday, February 8, 2011**

Authors Send Revised Manuscripts to the Proceedings Sub-Committee – **Monday, March 1, 2011**

Camera-Ready Manuscripts - **Monday, March 28, 2011**

**Submission Instructions**

All submissions must be formatted as MS word documents and sent as email attachments to the COERC Steering Committee Chair, Dr. Tonette S. Rocco, at: [roccot@fiu.edu](mailto:roccot@fiu.edu) by **December 13, 2010**. The title of the subject line of the email message should be: "COERC 2011". Upon receipt of the manuscript, the Committee Chair will send an e-mail acknowledgement. Each manuscript submission must contain two documents: the cover page and the manuscript.

Please submit the 2 email file attachments as follows:

1. Cover Page – Name this file attachment with your last name and the word "Cover" (e.g., *Jones.Cover.doc*).

Cover page should include the following information:

\* All author(s) identification/contact information and institutional affiliation (COE Department or other institution) on the Cover Page.

\*Manuscript Category (see Manuscript Categories list and guidelines)

\*Three (3) Key Words that are not in the Title to characterize the focus of the manuscript

*The 10th Annual College of Education and GSN Research Conference*

*Saturday April 23, 2011, 8:30 a. m. to 5 p. m.*

**Call for Manuscripts 2011**

\*Authorship category: student(s)-only, student(s)-faculty, or faculty-only manuscript.

\*The Warrant Statement.

**2. Blind Copy of the Manuscript-** Name this file attachment with your last name and the word "Blind" (e.g., *Jones.Blind.doc*).

The manuscript should include the following information:

\*Manuscript title in **14 pt. Bold letters**.

\*Provide an abstract of 25-50 words maximum.

\*The manuscript should be six (6) single spaced pages, including references with one inch margins on all sides;

\*Extra two pages maximum may be added after the References for tables, figures, and/ or pictures.

\*APA 6th edition guidelines must be adhered to for format, organization, headings, reference citations, grammar, and other issues.

**Research with Human Subjects:** Please be mindful that the FIU Division of Sponsored Research requires completion of the *National Institutes of Health Human Subjects Online Training Module* (<http://cme.nci.nih.gov>) and *Institutional Review Board (IRB)* approval before the collection of any data involving human subjects. For further information contact one of the COE IRB representative, Dr. Leonard Bliss at [blissl@fiu.edu](mailto:blissl@fiu.edu) or 305.348.1903.

**Review and Selection Process**

The Review and Selection Committee will screen manuscripts for adherence to Submission Instructions and American Psychological Association (APA) 6<sup>th</sup> (ed.) guidelines. Manuscripts that have not followed these basic instructions will be returned to author(s) for corrections and possible re-submission within two weeks of receipt. All submissions will undergo a double blind review by the Review and Selection Committee, who will review each manuscript for content, clarity,

and organization. Manuscripts may be accepted, accepted with revisions, or rejected.

**Monday, February 8, 2011-Notification of Submission Status**

Authors will receive a letter with notification of submission status and feedback from reviewers. Authors are expected to either make revisions or address the reason the revision was not made in a cover letter within one month of receipt.

**Monday, March 1, 2011-**

**- Submission of the Revised Manuscripts to the Proceedings Sub-Committee**

Authors must re-submit the revised 6-page single spaced manuscript along with the cover letter that describes what changes were made to Proceedings sub-committee via email. The proceedings editors will edit every manuscript, making necessary formatting and editing changes. The edited manuscripts will then be returned to the authors. Authors are expected to return camera-ready manuscripts within one month.

**Monday, March 28, 2011**

**-Submission of Camera-Ready Manuscripts to the Proceedings Sub-Committee**

Please assist us in our efforts to produce high quality proceedings by following instructions, addressing editors/reviewers suggestions for improvement, meeting deadlines, and adhering to APA 6<sup>th</sup> edition guidelines.

**Saturday April 23, 2011 8:30 a. m. to 5 p. m. Tenth Annual COE-GSN Research Conference**

**Manuscript Discussion Sessions:** One to two manuscripts may be presented during the 50-minute sessions organized around common themes. Each session will be in a separate room with up to three concurrent sessions scheduled. The presenter of each manuscript will be allotted 10 to 15 minutes to present the key points from the manuscript. Interactive presentations are encouraged. MS PowerPoint,

overheads, or handouts are encouraged but not required.

For questions on submission instructions contact Dr. Tonette S. Rocco [roccot@fiu.edu](mailto:roccot@fiu.edu) or 305.348.6151 or any member of the 9th Annual COE Research Committee.

*Note: All moderators, presenters, and their family and friends are expected to register for the COE Research Conference.*

**Suggested Areas to Address in Manuscripts:**

- Theoretical framework/review of the literature that sheds light on the practitioner concern, research question, evaluation purpose, or research issue.
- Clear statement of the research concern/question/purpose/issue to be addressed.
- Research design
  - Rationale for method (qualitative/quantitative/mixed)
  - Research question(s)/Hypothesis
- Data collection and analysis Results of the study and reflections for potential changes in practice/policy/research
- Relationship of findings to existing theory
- Implications and recommendations for a specific field in education (school or non school based)

*The 10th Annual College of Education and GSN Research Conference*  
*Saturday April 23, 2011, 8:30 a. m. to 5 p. m.*  
**Call for Manuscripts 2011**

**Sample Cover Page**

Brief Manuscript Title	1
Title typed double space in Uppercase and Lowercase Letters and Centered between the Right and Left Margins	
First author's name Author's Email and Phone number College of Education, Department of XXXXX	
(List in order of contribution) Second author's name, Third author's name, etc.	
"I (we) warrant that if this manuscript is accepted, I (we) will address all concerns of the COERC Reviewers and Proceedings Editors and submit a final (revised) MS Word six page (single-spaced typed) manuscript for publication in the Conference Proceedings. I (we) understand that if this final manuscript is not received in its final form on or before <b>Monday, March 28, 2011</b> , this manuscript will not be included as part of the Proceedings."	
Author Preparing Warrant Statement:	
<i>Manuscript Category:</i> Reports on Research <input type="checkbox"/> Evaluation Studies <input type="checkbox"/> Methods and Issues in Research <input type="checkbox"/>	
<i>Authorship category:</i> Student(s)-only <input type="checkbox"/> Student(s)-faculty <input type="checkbox"/> Faculty-only manuscript <input type="checkbox"/>	
<i>Key Words:</i> (List three words not in the Title that characterize the focus of the Manuscript)	

**Manuscript Submission Checklist**

Electronic files

- Cover page, blind copy labeled correctly (e.g. author.cover.doc)
- MS Word is used
- Margins are 1 inch on all sides
- Length of text (including references) is six single spaced pages; an extra two pages maximum may be added for tables, figures, and/or pictures.

- Times New Roman 12pt type font used
- Pages are numbered in the footer of the lower right hand corner of each page
- Spelling and Grammar are checked
- Submission Instructions are followed

Cover Page

- Manuscript Title is provided
- All authors' names, First author's email, phone number, and affiliation
- Manuscript Category (from Manuscript Category List)
- Three Key Words not in Title characterizing the focus of the Manuscript
- Warrant Statement

Blind Copy

- No author identification is present
- Manuscript Title is included in 14 pt. Bold, centered at the top of the page
- APA (6<sup>th</sup> ed.) Guidelines followed throughout
- A theoretical framework for the project is provided
- A clear research question or purpose is stated
- Clearly written using concise language and few pronouns
- Headings are meaningful and provide clear guide to organization
- The scholarly work is relevant to the COE audience
- Method description provides details on what, how, and why for all elements in the research design description
- Manuscript Category is evident in the presentation
- APA format is followed for references cited in text and listed in References
- All references listed appear as citations
- Tables and Figures provided after References; an extra two pages for figures, tables, and/or pictures may be added.

**Sample Blind Manuscript**

**Title of Manuscript, Centered, in 14 point Bold, with All Important Words Capitalized**

**Abstract:** 25-50 words in block form

Indent and Text starts here, single-spaced.  
Text and References should be six pages maximum in 12 pt. Times New Roman font; an extra two pages may be added after the References for tables, figures, and/or pictures.

In footer, put the page number

For more information about the conference, please, visit  
[http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)

## The 10th Annual College of Education and Graduate Student Network Research Conference, Saturday April 23, 2011



### COERC 2011 Symposia: Call for Proposals

The COERC 2011 Steering Committee encourages the presentation of symposia on timely topics. Symposia can be valuable for promoting scientific interchange and developing new concepts in a way that crystallizes thinking in particular areas. This particular format also helps investigators and practitioners keep abreast of developments in fields that may not be intimately related to their own major research and professional interests. The COERC 2011 Steering Committee is responsible for selecting symposia to be included in the conference.

#### Proposals for symposia should include:

1. Title of the symposium.
2. Name, institutional affiliation, mailing address, and e-mail of the chairperson.
3. Justification of need for the symposium in the particular field (maximum 1000 words).
  - 3.1. Justification should include the timeliness of the topic and anticipated outcomes for those in attendance.
4. Format of the symposium.
  - 4.1. Each symposium is scheduled for 60 minutes.
  - 4.2. The expected format for a symposium consists of a 5 minute overview by the chair, two (2) speakers giving 10-15 minute talks, 5 minutes for discussion between talks, and concluding with 10-20 minutes for summary and discussion.
  - 4.3. The Steering Committee encourages the inclusion of a component of translational research in each symposium.
5. Title of each presentation followed by the name of the first author, his/her institutional affiliation, mailing address, country and e-mail, and the name(s) of the co-author(s), their institutional affiliation, and mailing address.
6. Summary of each presentation given by faculty (maximum 500 words). Presentations based on papers authored by individual students or groups of students must adhere to the submission instructions for individual manuscripts to allow consideration for the Lorraine R. Gay Award for Outstanding Research. The Review and Selection Committee may request that student papers be revised. Symposia may be rejected if student presentations are not revised and returned according to the deadlines set by the Review and Selection Committee.

Proposals should be submitted via email to Dr. Tonette S. Rocco at [roccot@fiu.edu](mailto:roccot@fiu.edu) by January 10, 2011. Authors will receive feedback by February 8, 2011. The 10<sup>th</sup> Annual College of Education and Graduate Student Network Research Conference will be held on Saturday, April 23, 2011. For more information about the Annual College of Education and GSN Research Conference, please, visit [http://coeweb.fiu.edu/research\\_conference/](http://coeweb.fiu.edu/research_conference/)