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Educators’ Knowledge of Evidence-based Teaching Models and Strategies for English Language Learners

Nancy J. Adams
Nancy Leffel Carlson
Pamela Monk
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Lamar University
Purpose
Phase I of the study examined teachers’ understanding of the laws and guidelines governing English language learners in the public school setting. The current study presents phase II, wherein educators were surveyed to identify knowledge of selected evidence-based teaching models and strategies supportive of English language learners (ELL), a growing population in schools across the United States. Because linguistic diversity continues to be a growing part of public education, school administrators and teachers must be knowledgeable of the optimal types of models and strategies needed for English language learners (Cordiero & Cunningham, 2013).

Background
English language learners (ELL) must be provided the opportunity to overcome language barriers to ensure their meaningful participation in educational programs (USDOE, 2005). According to the United States Department of Education (2005), programs that educate ELL students must be based on sound educational theory and adequately supported with effective staff and resources to support a realistic chance of success. Title III of the No Child Left Behind Act mandated that states improve the English proficiency of LEP students (USDOE, 2005).

Title III, Part A, Section 3102, of the Elementary and Secondary Education Act (ESEA), as reauthorized under the No Child Left Behind Act of 2001 (USDOE, 2001), aimed to ensure English language learners (ELL) and immigrant students attained English language proficiency and met the same challenging state academic content and student academic achievement standards as all children were expected to meet.

Definition of English Language Learners
NCLB defined limited English proficient students as:
ages 3-21, enrolled in elementary or secondary education, often born outside the United States or speaking a language other than English in their homes, and not having sufficient mastery of English to meet state standards and excel in an English-language classroom (USDOE, 2001).

The term limited English proficient (LEP) and English language learner (ELL), were both used to describe students who were not native speakers of English and whose English language skills were such that the student has difficulty performing ordinary class work in English (USDOE, 2005).

Literature Review
Population Growth and Accountability Mandates
Non-English-speaking students were the fastest growing subgroup of children among public school populations (McCardle, 2005). More than five million English Language Learners, speaking more than 400 languages were enrolled in grades pre-K through 12 in the 2008-2009 school year (NCELA, 2011). Although the percentage of increase varied across regions of the United States, all regions showed an increase in the ELL student population, both in total and as a percentage of the of the total school population (Cordiero & Cunningham, 2013).

The U.S. Department of Education's Office for Civil Rights (OCR) oversaw school districts’ broad discretion concerning how to ensure equal educational opportunity for ELLs. OCR did not prescribe a specific intervention strategy or program model that a district was required to serve ELLs, and gave substantial flexibility in developing programs to meet the needs of ELL students (OCR, 2006). English language learners were required to have alternative services until they were proficient enough in English to participate meaningfully in the regular
program (USDOE, 2005). The following guidelines were outlined by OCR (2006) for school districts to ensure their programs were serving ELLs effectively. Districts:

- identify students as potential ELLs;
- assess student's need for ELL services;
- develop a program which, in the view of experts in the field, has a reasonable chance for success;
- ensure that necessary staff, curricular materials, and facilities are in place and are used properly;
- develop appropriate evaluation standards, including program exit criteria, for measuring the progress of students; and
- assess the success of the program and modify it where needed.

Districts were responsible for ensuring students had an equal opportunity to have English language and academic needs met in a variety of ways, including adequate training to classroom teachers on second language acquisition and monitoring the educational progress of the student even when parents deny ELL services (Cordiero & Cunningham, 2013; USDOE, 2005). Limited English proficient (LEP) students who were not offered services to assist in overcoming language barriers often experienced repeated failure in the classroom, fell behind in grade levels, dropped out of school, were inappropriately placed in special education classes, and did not have access to high track courses or gifted and talented programs (USDOE, 2005).

The No Child Left Behind Act (USDOE, 2001), required that students met state and Federal accountability assessment standards. In addition, performance of LEP students on standardized tests were required to be disaggregated, which directly impacted the Federal Adequate Yearly Performance (AYP) and state accountability ratings of districts and schools. The NCLB mandates may have unintentionally placed undue pressure on schools with high numbers of LEP students (Abedi, 2004). Performance on mandated Federal and state assessments of the English language learner population, as well as that of low socio-economic, special education, African-American, White, Hispanic, Asian-Pacific Islander, and two or more race populations were required to be disaggregated as part of the process for determining district and school AYP and state accountability ratings, indicating the need to effectively engage each student population in the teaching and learning process. Limited English proficient students were twice as likely to live in poor families compared to children who speak only English or English very well (Batalova, 2006; Reardon-Anderson, Capps, & Fix, 2002). Considerable overlap in language instruction needs existed between LEP and economically disadvantaged children, both groups that count toward schools’ performance under NCLB (Consentina de Cohen, Deterding, & Clewell, 2005). For schools serving immigrant and LEP children, these combined circumstances presented challenges and carried significant resource implications (Capps et al., 2005). English language acquisition was necessary to glean the knowledge and skills required in key subjects assessed as part of state or Federal accountability systems including reading, language arts, math, science, and social studies. Thus, it appeared imperative that teachers were trained in the use of evidence-based instructional delivery models and strategies that enhance instruction of ELL students (Cordiero & Cunningham, 2013).

**Instructional Delivery Models and Evidence-based Teaching Strategies.**

The National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA, 2011) maintained English learners may be served by Language Instruction Educational Programs (LIEPs) which either focused on developing literacy in English and in another language, or they may be served by programs which focused on English only.
Two-Way Immersion, Dual Language, Early Exit Transitional, Heritage Language, or Developmental Bi-Lingual instructional delivery models focused on developing English literacy and another language. Examples of delivery models that focused on English literacy only are Content-based English as a Second Language (ESL), Structured English Immersion (SEI), ESL Pull-out, and ESL Push-in, and Sheltered Instruction Observation Protocol (SIOP) (Cordiero & Cunningham, 2013; NCELA, 2011). It was important for educational leaders to determine which approach was most appropriate for the children in their schools or districts (Cordiero & Cunningham).

Weisman and Hansen (2007) noted students often acquired conversational skills quickly, but it took longer to develop literacy skills and academic language. Understanding subject matter while acquiring English-language skills required adaptations to instruction. Cordiero and Cunningham (2013) assert when effective bilingual programs are not available for English language learners, an alternative was for classroom teachers to use an approach called specially designed academic instruction in English (SDAIE), or sheltered instruction (SIOP). This approach used techniques to teach ELL students concepts, content, and academic language (Cordiero & Cunningham; Weisman & Hanson).

The sheltered approach incorporated many different types of instructional strategies, including modified speech such as teachers speaking slower and clearly, emphasizing and repeating key points, defining vocabulary in context, choral reading, avoiding idioms, and coupling talk with gestures, drawings, graphs, and charts (Cordiero & Cunningham, 2013; Weisman & Hanson, 2007). The curriculum was not watered down; instead, there was a rigorous core curriculum. The goal was to provide appropriate scaffolding, or contextual support, to ensure content was comprehensible. Effective sheltered instruction also provided opportunities for social interaction to reinforce learning and promoted the production of language, including content-specific terms. Teacher training in SDAIE methodology revolved around the idea that successful lesson design and course development hinged on the teacher’s ability to provide a supportive affective environment and comprehensible second language input (Cordiero & Cunningham). The SDAIE teaching strategies were often implemented with native English-speaking students; however, explicit training in the types of teaching strategies used in SDAIE methodology indicated that teachers consciously and purposefully employed strategies and techniques that were effective for not only learning English, but also the subject material.

The Study

Research Design

A non-experimental basic research design with a survey was used for this study. The following components are described: research questions, instrument, limitations, and participants.

Research Questions

The research questions investigated educators’ knowledge of selected evidence-based instructional delivery models and evidence-based teaching strategies supportive of English language learners.

Instrument

The survey instrument was developed based upon a review of the literature covering characteristics, terms associated with English language learners (ELL), Federal and state laws and guidelines governing education of the ELL population, and models and teaching strategies supportive of ELL students. Survey questions and responses were clustered into two categories: ELL instructional delivery models and ELL evidence-based teaching strategies. The questionnaire, processed through SurveyMonkey, was distributed via electronic mail. Part I
contained demographic information. Part II contained items requiring respondents to answer “strongly agree”, “strongly disagree”, or “no knowledge”. A panel of experts, including university professors and educational professionals from the field, provided face validity for the instrument.

**Limitations**

A basic assumption of this study was the premise that respondents were, or previously had been, actively involved with the education of ELL students. A limitation of this study was commensurate with survey research methods. For this survey, data were collected at one point in time and reflected the experiences and biases of the respondents whose input was strictly voluntary.

**Participants**

Participants were practicing educators who were Master’s degree candidates in Educational Leadership, Educational Technology Leadership, Teacher Leadership, or Counseling programs in a southwest state. Two thousand six hundred fifty-nine (2,659) surveys were distributed; three hundred twenty-four (324) or approximately 13% were received.

**Findings**

**Participant Characteristics**

Table 1 (see Appendix A) shows the majority of respondents (80%) were female. Respondents included several age groups from young educators at age 21 to seasoned educators at age 61 or over. The majority of the respondents were between 31 and 50 years old.

The respondents represented several ethnic groups (see Table 2, Appendix A). The ethnic group represented by the greatest number of respondents was Caucasian (71%). The next largest group was Hispanic (17%). Almost 90%, of respondents were Caucasian or Hispanic. Groups least represented included Asian (1%), African American (6%), Native American (<1%), mixed ethnic (3%), and a group indicated as other (1%).

The respondents represented several areas of employment (see Appendix A, Table 3). Seventy-four percent (74%), listed general education as their area of employment. The next greatest area of employment was ELL/ESL/Bilingual (21%). Groups least represented were special education (11%) and counselors (6%).

Most respondents indicated they taught, or had taught grades 11-12 (34%), while the least represented grade levels were PK-1st grade (18%). Other grade levels represented were 2nd-3rd grades (22%), 4th-5th grades (23%), 6th-7th grades (23%), 8th grade (20%), and 9th-10th grades (31%). The majority (65%) taught or had previously taught grades 9-12 (see Appendix A, Table 4).

Respondents reported their teaching experience. Most respondents, (25%), had 4-7 years teaching experience, while 12% had only 0-3 years experience. Others indicated 8-11 years experience (22%), 12-15 years experience (18%) and over 15 years experience (24%).

Analysis of respondents’ demographics indicated the most likely respondent to this survey was a Caucasian female, between the ages of 31-40 with 4-7 years experience, employed in general education, who taught grades 9-12 (high school).

Table 5 (see Appendix A) shows educators’ knowledge of ELL instructional delivery models. The majority of respondents, 91%, strongly agreed that every student who is identified as LEP shall be provided an opportunity to participate in a bilingual education or ESL program, while 3.8% strongly disagreed, and 5.1% had no knowledge. Most respondents, 75.8%, strongly agreed that in bilingual education classes, content area instruction is provided in both the student’s primary language and English, while 12.6% strongly disagreed, and 11.6% responded
that they did not know. Approximately 64.6% of respondents strongly agreed the Sheltered Instruction Observation Protocol (SIOP) instructional delivery model is a recommended training for content area teachers wherein teachers learn to prepare and deliver comprehensible lessons, while 3.4% strongly disagreed, and 32% stated they had no knowledge.

Table 6 (see Appendix A) shows that many respondents, 88.7%, strongly agreed that cooperative learning is effective with ELL’s, giving them frequent opportunities to speak and practice what they have learned, while only 0.3% strongly disagreed, and 11% did not know.

Table 7 (see Appendix A) shows that 76.1% of respondents strongly agreed that Academic Language Scaffolding describes the step-by-step process of building students’ ability to complete tasks on their own, while 3.4% strongly disagreed, and 20.5% had no knowledge.

Table 8 (see Appendix A) shows that 68.8% of respondents strongly agreed, when possible, students should be provided with academic support in their native language (Native Language support), which validates the students and their culture, while 9.6% strongly disagreed, and 31.2% had no knowledge.

Table 9 (see Appendix A) shows that most respondents, ranging from 89.8% to 97.6% strongly agreed that strategies such as enunciating clearly and at a slow pace of speech to presenting information in a variety of ways and providing frequent summations of main points of a lesson, always emphasizing key vocabulary words could improve mainstream instruction for ELL students. Respondents who strongly disagreed these strategies improved mainstream ELL instruction ranged from 6.5% to 0.3%, while 3.8% to 2.0%, responded they had no knowledge.

**Summary and Conclusions**

Three hundred twenty-four Master’s degree candidates in online programs for Educational Leadership, Educational Technology Leadership, Teacher Leadership, or Counseling programs in a southwest state responded to an online survey identifying their knowledge of selected ELL teaching models and evidence-based teaching strategies.

Most respondents to this survey were Caucasian females, between the ages of 31-40 with 4-7 years experience, employed in general education, who taught grades 9-12 (high school). Almost all respondents were familiar with the term English language learner (ELL). Twenty-one percent of respondents (21%) were ESL or bilingual teachers.

Most respondents (88.7%) were aware that cooperative learning is effective with ELLs. Most respondents (89.8%-97.6%) were aware mainstream teachers can improve ELL instruction by enunciating clearly and using a slow pace of speech, writing clearly, legibly, and in print, repeating information and reviewing frequently. Other effective teaching strategies included avoiding idioms and slang words, presenting new information in the context of known information, announcing the lesson’s objectives and activities, listing instructions step-by-step, providing frequent summations of the main points of a lesson. Most respondents agreed that always emphasizing key vocabulary words, and recognizing student success openly and frequently were effective teaching strategies that provided successful learning for English language learners.

The researchers noted these strategies are appropriate for English speaking students, as well. This may indicate the respondents had, through experience or training, been made aware of the effectiveness of the selected strategies; however, many respondents (35.4%) had no knowledge of or disagreed the Sheltered Instruction Observation Protocol (SIOP) model was recommended as an effective instruction strategy for ELL students. This may suggest that explicit professional development in that specially designed academic instructional model for ELL students had not occurred.
Recommendations

Results of the study indicated that many respondents are unfamiliar with specific teaching models and strategies shown to be effective with teaching English language learning students. A survey of literature indicated a growing ELL population and increasing Federal and state accountability standards for students with English language learning needs. Results of this study indicates that professional development needs of educators provided includes teaching strategies explicitly designed to support English language learners. Specially designed academic instruction in English (SDAIE) methodology, also referred to as sheltered instruction, is a specific training model that ensures teachers ‘consciously and purposefully’ employ strategies and techniques effective for not only learning English, but also, learning subject material. Ensuring that school leaders, support staff, and teachers have on-going professional development training and support to provide for all students, including the growing English language learner population, is imperative in this time of increasing accountability. This study supports the imperative need to provide professional development to educators in research-based teaching techniques and models that are known to be effective in teaching the exploding population of English language learning students in our schools.

References


Appendix A

Table 1
**Participant Characteristics Gender (N=324)**

<table>
<thead>
<tr>
<th>Gender</th>
<th>% responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>80.0%</td>
</tr>
<tr>
<td>Male</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Table 2
**Participant Characteristics Ethnic Group (N=324)**

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>% responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>71.0%</td>
</tr>
<tr>
<td>African American</td>
<td>6.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>17.0%</td>
</tr>
<tr>
<td>Asian</td>
<td>1.0%</td>
</tr>
<tr>
<td>Native American</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Table 3
**Participant Characteristics Area of Employment (N=324)**

<table>
<thead>
<tr>
<th>Area of Employment</th>
<th>% responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>74.0%</td>
</tr>
<tr>
<td>ELL/ESL</td>
<td>21.0%</td>
</tr>
<tr>
<td>Special Education</td>
<td>11.0%</td>
</tr>
<tr>
<td>Counselors</td>
<td>6.0%</td>
</tr>
</tbody>
</table>
Table 4
**Participant Characteristics Grade Level Taught (N=324)**

<table>
<thead>
<tr>
<th>Grade Level Taught</th>
<th>% responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK-1st grade</td>
<td>18.0%</td>
</tr>
<tr>
<td>2nd-3rd grade</td>
<td>22.0%</td>
</tr>
<tr>
<td>4th-5th grade</td>
<td>23.0%</td>
</tr>
<tr>
<td>6th-7th</td>
<td>23.0%</td>
</tr>
<tr>
<td>8th grade</td>
<td>20.0%</td>
</tr>
<tr>
<td>9th-10th</td>
<td>31.0%</td>
</tr>
<tr>
<td>11th-12th</td>
<td>34.0%</td>
</tr>
</tbody>
</table>

*Note.* Multiple grade levels were accepted

Table 5
**Practicing Teachers’ Knowledge of ELL Evidence-based Delivery Models (N=324)**

<table>
<thead>
<tr>
<th>Knowledge area</th>
<th>% Yes</th>
<th>% No</th>
<th>% No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Every student who has a home language other than English and who is identified as LEP shall be provided a full opportunity to participate in a bilingual education or ESL program.</td>
<td>91.0%</td>
<td>3.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2. In bilingual education classes, content area instruction is provided in both the student’s primary language and English.</td>
<td>75.8%</td>
<td>12.6%</td>
<td>11.6%</td>
</tr>
<tr>
<td>3. Sheltered Instruction Observation Protocol (SIOP) is a recommended training for content area teachers wherein teachers learn to prepare and deliver comprehensible lessons.</td>
<td>64.6%</td>
<td>3.4%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Table 6
**Practicing Teachers’ Knowledge of ELL Evidence-based Teaching Strategies (N=324)**

<table>
<thead>
<tr>
<th>Knowledge area</th>
<th>% Yes</th>
<th>% No</th>
<th>% No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative learning is effective with ELL’s because all students are given frequent opportunities to speak and practice what they have learned.</td>
<td>88.7%</td>
<td>0.3%</td>
<td>11%</td>
</tr>
</tbody>
</table>
**Table 7**  
*Practicing Teachers’ Knowledge of ELL Evidence-based Teaching Strategies (N=324)*

<table>
<thead>
<tr>
<th>Knowledge area</th>
<th>% Yes</th>
<th>% No</th>
<th>% No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Language Scaffolding describes the step-by-step process of building students’ ability to complete tasks on their own.</td>
<td>76.1%</td>
<td>3.4%</td>
<td>20.5%</td>
</tr>
</tbody>
</table>

**Table 8**  
*Practicing Teachers’ Knowledge of ELL Evidence-based Teaching Strategies (N=324)*

<table>
<thead>
<tr>
<th>Knowledge area</th>
<th>% Yes</th>
<th>% No</th>
<th>% No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>When possible, students should be provided with academic support in their native language which validates the students and their culture.</td>
<td>68.8%</td>
<td>9.6%</td>
<td>31.2%</td>
</tr>
</tbody>
</table>

**Table 9**  
*Practicing Teachers’ Knowledge of ELL Evidence-based Teaching Strategies (N=324)*

<table>
<thead>
<tr>
<th>Knowledge area</th>
<th>% Yes</th>
<th>% No</th>
<th>% No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainstream teachers can improve ELL instruction by: Enunciating clearly and at a slow pace of speech</td>
<td>89.8%</td>
<td>6.5%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Writing clearly, legibly, and in print</td>
<td>94.5%</td>
<td>1.7%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Repeating information and reviewing frequently</td>
<td>96.9%</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Avoiding idioms and slang words</td>
<td>91.8%</td>
<td>5.5%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Presenting new information in the context of known information</td>
<td>97.3%</td>
<td>0.3%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Announcing the lesson’s objectives and activities</td>
<td>94.8%</td>
<td>1.7%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Listing instructions step-by-step</td>
<td>96.9%</td>
<td>0.7%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Presenting information in a variety of ways</td>
<td>97.6%</td>
<td>0.3%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Providing frequent summations of the main points of a lesson, always emphasizing key vocabulary words.</td>
<td>97.6%</td>
<td>0.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Recognizing student success openly and frequently.</td>
<td>96.6%</td>
<td>0.7%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
African American Pastors’ Actions:
In Cases Of Incest In The African American Community

Dwane Allen
Tesia D. Wells
Texas Woman’s University
Abstract

This quantitative study sought to explore African American Pastor’s actions regarding childhood incest in the African American community. The study also explored whether pastor’s education about incest would influence their providing of pastoral care for the families, victims, survivors, and perpetrators/offenders. This study was exploratory in order to draw public and researchers’ attention to the understudied incest phenomenon in the African American community.

The participants for this study were recruited using a convenience sampling technique. The sample consisted of 52 African American male pastors with a minimum of one year as a pastor. The participants were pastors of predominately African American congregations in the state of Texas. These African American pastors are affiliated with the Church of God in Christ. The participants completed Jackson Incest Blame Scale (JIBS) and Personal Background Questionnaire (PBQ). Data was analyzed using descriptive and inferential statistics.

The results of this study indicated that African American pastors believe that childhood incest exist in the African American community. The exploration of actions regarding childhood incest in the African American community is that both victim’s behavior and offender characteristics are important in reporting childhood incest to the proper authorities. Significant results indicate that the educational level of pastors is essential in understanding childhood incest in the African American family and community.

Introduction and Problem

The sexual interaction among family members known as incest is a phenomenon of great perplexity (Kult, 2005), particularly in the African American family (Robinson, 2000). Historically, in times of crisis in the African American family, the African American church and especially the pastor serve as buffers to life stressors (Ellison, Vaaler, Flannelly, & Weaver, 2006). Few studies have examined the role of the church and the African American pastor as an important resource for families involved in mental and emotional crisis, which may include childhood incest. Rudolfson and Tidefors (2009) found that ministers refer less than 10% of individuals who seek help from them with mental and emotional issues to mental health professionals, which show the importance of ministers trusting other professionals (especially mental health) and the importance of knowing whom to contact for help outside the ministry.

Individuals who had a childhood sexual abuse experience often lack self-confidence and display an overwhelming complex in trusting people (Browne & Winkelman, 2007; Hall, 2008). “Incest Survivor Syndrome” is a set of behaviors or symptoms that most victims of incest display. These behaviors include chronic and latent depression, sexual problems, anxiety, sleep disturbances, self-mutilation, substance abuse, promiscuity, unstable-interpersonal relationships, eating disorders, and compulsive self-abuse (Kirschner, Kirschner, & Rappaport, 1983, Yusksel, 2008). Reckless behavior, substance abuse, eating disorders, self-destructiveness, compulsive sexual behavior and compulsive risk-taking are only a few of the problems faced by victims of sexual abuse as children (Finkelhor & Browne, 1985; Finkelhor, 1993).

Robinson (2000) noted that an incest incident threatens to haunt the adult survivor in later life without appropriately addressing childhood victimization. Likewise, Davis and Frawley (1994) noted that the adult survivors of childhood incest might exhibit obsessive thinking, dissociation, suicidal thought, guilt, and destructive perception of self (Turrell & Armsworth, 2003). Additionally, results from a study by Leifer, Kilbane, Jacobsen, and Grossman (2004) established that mothers of sexually abused children reported in their own childhood a severe history of abuse, neglect, serious problems in their family of origin, and as adults less positive
relationships with their mothers. Lastly, Hattery (2009) noted that African American women who are sexually abused as girls seemingly have less access to treatment that is successful in producing healing.

Male victims of childhood sexual abuse may have the same symptoms, but males express these differently. Fields, Malabranche, and Feist-Price’s (2008) research on the prevalence of childhood sexual abuse found that African American men who experienced childhood sexual abuse linked their adult problems with verbal communication, interaction with people and overall comfort with self to the trauma of childhood sexual abuse. Wilson (2004) notes that when boys are victimized, it is significantly more likely to be at the hands of a family member. Valente (2005) notes that information about male victims has come primarily from incarcerated pedophiles and that the experiences of the young male victims have remained relatively unexamined. These individuals have problems related to a lack of trust, anger, hostility, anxiety, depression, isolation, and loss of power, along with psychological symptomatology.

**Review of Literature – Theoretical Perspectives**

This research study is guided by the attribution theory, which was developed by Fritz Heider, Harold Kelly, Edward E. Jones and Bernard Weiner. Attribution theory seeks to explain or make sense of human behavior through three elements (sometime called three-stage of attribution). The elements of attribution are locus, stability, and controllability. Locus is the cause, which can be internal (dispositional) or external (situational). Stability is whether the cause is constant or changing. Controllability is the person’s ability to manipulate the cause. Attribution theory recognizes that a person comprehends their circumstances where a positive self-image is conserved (Weiner, 1974, 1980, 1986). Jackson and Ferguson (1983) noted that a person attributes blame of incest based on an aspect of their attitudes toward incest. This may be true for African American pastors who are seen as a positive image in the African American family/community. The way the pastor attributes his understanding of childhood incest can help the victim and their family cope with the experience of childhood incest in the African American community. The pastors’ attributions will also explain how the pastors interact with individuals and families who have and are going through the experience of childhood incest. Thus, it is vital to explore attribution of pastors in cases of childhood incest and how the pastors’ internal or external attributions guide the techniques used by pastors in responding to childhood incest in the African American family/community.

Within the African American population, to admit that the childhood incest event happened is to rebel against family teaching and culture: therefore, reality is denied (Robinson, 2000). Consequently, communicating about the experience of childhood incest is considered taboo. Robinson (2000) stated that time does not cure the effects of childhood incest, and for the African American family/community, getting help is connected to being inadequate, deficient, or lacking faith. Mattis (2002) noted that the memory and experience of the abuse is still in the thoughts of adult childhood incest survivors.

Sims (2002) explored African American Christian faith ministers’ attitudes and beliefs in a qualitative study about incest and sexual abuse in the African American community. Results revealed that 75% of the ministers did not know that they were obligated to report suspected child sexual abuse and mentioned needing proof to report members of their congregation to the authorities. The researcher found that participating ministers expected the children in the study to willingly and honestly discuss their sexual abuse experience. Furthermore, the findings indicated that the ministers’ behaviors were greatly influenced by their beliefs and attitudes and thus,
inform their behaviors and expectations in the area of childhood sexual abuse/incest (Sims, 2002).

Leifer, Kilbane, Jacobsen, and Grossman (2004) explored the transmission risk of sexual abuse among three-generations within African American families. Study results indicated that mothers of sexually abused children reported a severe history of childhood abuse, neglect, serious problems in their family of origin, and less positive relationships with their mothers. In addition, they noted that mothers of sexually abused children reported serious problems in their intimate relationships and psychological functioning. These mothers also reported conflict filled relationships with their mothers.

Barrett’s (2009) study explored African American female parents that were sexually abused as children. Findings suggest that childhood sexual abuse impacts parents’ ability to be warm and caring. Findings indicate that mothers’ ages of 19 to 51 have adversity in other areas of their parenting life and may overly identify parenting struggles, economic and social hardship, with the trauma of childhood sexual abuse.

Lastly, Fields, Malabranche, and Feist-Price’s (2008) research on the prevalence of childhood sexual abuse found that African American men who experienced childhood sexual abuse linked their adult problems with verbal communication, interaction with people and overall comfort with self to the trauma they experienced as a victim of child sexual abuse. One important finding is that many of the participants in this study viewed their current same-sex desire as a result of the childhood sexual abuse.

Rudolfson and Tidefors (2009) research states that Christians around the world often turn to their pastors, ministers, and congregations for support and comfort to help understand what happened to them during times of personal distress and crises. Support for the claim that African Americans utilized their pastors as a resource is documented by research from the National Comorbidity Survey (Molnar, Buka, & Kessler 2001). Specifically this survey indicated that many adults in the United States sought therapy/counseling for mental illness from their pastors and that several of those individuals seeking therapy/counseling from pastors had a severe mental disorder (Molar, et. al 2001). Most of these individuals with severe mental illness did not seek treatment from mental health professionals (Wang, Berglund, & Kessler, 2003). Ellison, et al. (2006) noted that pastors are seen as resilient by the congregation and are perceived to possess the ability to treat mental illnesses, addictions, family dysfunction, and other issues that affect the family. This study also stressed that African American Christians look for emotional, spiritual, and resource assistance from other church members at all times, but especially during tragedies, pastoral care becomes essential (Ellison, et al. 2006).

Robison (2004) noted that the relationship between pastor and African American church member must be careful attended to because of the culturally competent pastoral care provided. People in general must also pay careful attention to the hierarchical power dynamics that are inherent in the pastor and member relationship. Additionally when providing pastoral care pastors must be accountable for interactions with church members.

Rudolfson Tidefors and Stromwall (2001) noted that a spiritual connection is found to be vital as a coping mechanism against negative life events and has a unique impact in providing a foundation through which painful experience may be eased. Also noted by Rudolfson and Tidefors (2009) is that faith can enhance a person’s ability to cope with negative life events, and negative life events can enhance religious faith. Fogue and Glachan (2000) noted that pastors and ministers might be familiar with and even have an ongoing relationship with the victim, which is unlike other therapeutic and helping professions. This relationship may likely lead to a situation
where the pastor or minister is the first person the victim of childhood sexual abuse is able to trust and disclose.

Rudolfson Tidefors and Stromwall (2011) study revealed that knowledge and preparation on dealing with issues of incest was not a part of the ministerial educational studies provided of ministries or pastors. Therefore the thought of asking existential questions associated with abuse was not considered. Pastors and ministers noted that pastoral caregiving involved meeting victims of sexual abuse, their ability to offer pastoral care and knowledge about other organizations to contact for further help is lower for male victims than female victims. Pastors also noted that the likelihood of previously knowing the perpetrator and sexually abuse individual telling about the abuse causes a stressful situation. Fogue and Glachan (2000) noted that Pastoral counseling, Christian biblical counseling, and non-Christian counseling, all differ in many aspects of techniques used in aiding of childhood sexual abuse. Many clergy, counselors and leaders may make insensitive, and sometimes damaging, interpretations to Christian survivors of sexual abuse, and that many biblical counselors may work outside their competence area without adequate training or appropriate supervision (Fouque & Glachan, 2000).

**Purpose of Paper**

The purpose of this paper was to present the results of a study that examines the beliefs of African American pastors regarding the prevalence of child incest within the African American community, their decision to inform the proper authorities, and their ability and beliefs about providing pastoral care for the families, victims, survivors, and perpetrators/offenders.

**Methods**

Topics covered in the Methods section include instrumentation, the sample and data collection, analysis and results, conclusion, recommendation, and limitations.

**The Instruments**

The Jackson Incest Blame Scale (JIBS) instrument was adapted from the Attribution of Rape Blame Scale (ARBS). The items on the JIBS and the ARBS are synonymous with only the word “rape” replaced with ‘incest,’” except to reflect the hypothesis situational differences between rape and incest; specific situational factor items of context required change. The JIBS measures attribution of blame in incest cases; there are four areas which are equally represented on the JIBS. They are Situational factors, Societal values, Victims behavior, and Offender characteristics. These four variables identify sources of blame attribution and offer and explanation for the cause of incest. Participants answered 20 statements in which the blame of incest is attributed. The statements were answered on a 6-point Likert scale from “Strongly Disagree” to “Strongly Agree” where 1 indicates Strongly Disagree and 6 indicates Strongly Agree. The JIBS has a coefficient alpha of .71 for the total score. The validity for the JIBS was established by Jackson and Ferguson (1983). A significant sex difference was found only in factor II: Victim Blame. In the original sample males blamed the victim more than females did. The JIBS is a 20-items, self-administered questionnaire that requires 10 minutes to complete and 19 of the statements propose a reason for the cause of incest.

The Personal Background Questionnaire (PBQ) is a questionnaire that was designed by the researcher to obtain demographic information, which including age, gender, relationship status, congregation size, years in pastoral and ministry professions, educational level, annual salary, and known incest cases within the congregation.

**Sample and Data Collection**

One hundred and twenty-five survey packets were mailed to African American pastors affiliated with the Church of God in Christ from the state of Texas. Participants had experience
in the ministry as pastors in the Church of God in Christ with a predominantly African American congregation. The survey packet contained two data collection measurements that were mailed to participants’ addresses as listed in the directory utilized in this study. The packet included instructions for completion of the data collection measures and how to mail completed questionnaires back to the researcher using an enclosed self-addressed envelope and took the participant no longer than 40 minutes. Participation in this study was voluntary and consent was included in the demographic survey. The consent informed participants that the survey was anonymous and that the researcher would not collect any identifying data. The final sample consisted of 52 African American male pastors.

**Sample Characteristics**

The demographic information for pastors was 88% percent of participants were married, 5.8% were single, 3.8% had a significant other and 1.8% was divorced. The majority (88.5%) of pastors in this study had some form of secondary education (college/university). Pastors with a bachelor’s degree accounted for 33.7% and pastors with a graduate and post-graduate degrees account for 21.2%. The participants’ ages ranged from 37 to 75, participants’ years as a pastor range from 1 to 38; years in the ministry ranged from 6 to 48; and their congregation sizes ranged from were 15 to 70. The pastors report that incest cases within their congregation range from 0 to 7.

Table 1 displays the range, means and standard deviation of pastors’ education levels. Of the 52 pastors in the study six had an education level of eighth grade to high school diplomat and 18 had some college or an associate’s degree. Seventeen pastors held a bachelor’s degree, and 11 pastors held a graduate and/or post-graduate degree.

Table 2 displays multiple comparisons between education levels and societal values. The statistical significance between education was determined by one-way analysis of variance (ANOVA) followed by inspection of all differences between pairs. For each measure, post hoc multiple comparisons were conducted using Tukey HSD method to identify significant differences among education levels of pastors. A significant positive correlation was found for societal values between pastors with high school and some college/associate’s degrees (r = 1.07, p < 0.05). A significant negative correlation of was found for societal values between pastors with some college/associate’s degrees and bachelor’s degrees (r = -1.07, p > 0.05).

Table 3 displays a nonparametric correlation between Personal Background Questionnaire and education of pastors in the study. A Spearman’s rho was used to find the relationship between independent and dependent variables. A correlation was revealed between education and behavior of the childhood incest victim (r = .403, p <0.01), which indicates that as participants increase their education as pastors, there is also an increase in their beliefs that the childhood incest victim’s behavior attributes toward childhood incest phenomenon in the African American family and community. A second correlation was revealed between offender’s characteristics and education (r = .399, p <0.01) which also indicates that as participants increase their education as pastors, again there is an increase in their beliefs, but this time it is about the offender’s characteristics for attributes toward childhood incest phenomenon in the African American family and community. A third correlation was revealed between offender’s characteristics and pastor’s oath (r = 444, p < 0.01). This indicates that participating pastors believe offender’s characteristics attribute to childhood incest in the African American family and community. A fourth correlation was revealed between pastor’s oath and behavior of childhood incest victim (r = .420, p <0.01). This indicates that participating pastors believe the victim’s behavior also attributes to childhood incest in the African American family and community.
community. The fifth and final correlation was between the offender’s characteristics and behavior of the childhood incest victim ($r = .793, p <0.01$). This suggests that participating pastors believe that both the childhood incest victim’s behavior and the offender’s characteristics attribute to childhood incest in the African American family and community.

Conclusions and Recommendations

Childhood incest is an understudied phenomenon in the African American community. This study identified a need for African American male pastors to become educated about childhood incest in the African American family, community and especially within their church congregation. Additionally, that a course is offered in their educational pursuit about childhood incest and how to handle the matter, what to do in case of childhood incest and who to talk to about childhood incest. Furthermore, African American pastors should work with resources outside of the church including mental health professionals to aide individuals who have experienced childhood incest with any mental, emotional, physical, and psychological problems that may have occurred as a result of the childhood incest incident. It is vital that, all professionals working with the childhood incest victim, perpetrator, and family must understand the relationship between African American church member and the African American pastor in regards to communication about the childhood incest incident. Results of this study also indicates that pastors be educated and understand the state mandate to report childhood incest and sexual abuse.

Limitations of the Study

The sample was not randomly selected so findings cannot be generalized to all African American pastors. Only pastors whose addresses were in directory received a mailed survey packet. Participants answered the survey at their convenience and answers may be different within a face-to-face data collection format.

References


### Table 1

**Pastor’s Education levels, Percent, Mean, and Standard Deviation**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency (N=52)</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tr>
<td>8&lt;sup&gt;th&lt;/sup&gt; – High School</td>
<td>6</td>
<td>11.5</td>
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<td>Grad degree – post graduate degree</td>
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<td>21.2</td>
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<td>.73</td>
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### Table 2

**Multiple Comparisons of Pastor’s Education and Societal Value Factor of JIBS**

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<th>Education Revised</th>
<th>Means</th>
<th>SD</th>
<th>Sig</th>
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<td>.266</td>
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<td></td>
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<td>1.0</td>
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<td></td>
<td>Grad Degree – Post Grad</td>
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<td>.445</td>
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<td>.044</td>
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Table 3
Correlation of Personal Background Questionnaire (PBQ) Questions and Education

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<tr>
<th></th>
<th>Edu.</th>
<th>Incest</th>
<th>P. O</th>
<th>V. B.</th>
<th>O. C.</th>
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<td></td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td><strong>Behavior of Child Incest Victim</strong></td>
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Using Technology to Infuse and Evaluate Gero-Educational Curriculum Content

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The University of Texas at Arlington

Suk-Young Kang
Binghamton University: SUNY
Abstract
Among social service providers, there is a critical shortage of professionals trained in the provision of much needed social and health services for the elderly. Indeed, among those entering these professions, there is often limited interest, or available and structured higher educational training programs, focused in gerontology. These are not sufficient to meet the anticipated and proliferating need for services over the next few decades in the United States and in other developed countries with similar aging demographic trends. This paper will describe, the implementation of a three year project and training program funded by the John A. Hartford Foundation entitled: A Planned Change Model: Preparing Gerontologically-Competent Graduates, Council on Social Work Education (CSWE): Gero-Ed Center, Curriculum Development and Implementation Training Course. The curricular project at the University of Texas at Arlington, in the United States, included overcoming barriers to change, the infusion of foundation or other curricula, technological and training innovations for infusion and delivery of curriculum content and of the project evaluation and subsequent lessons learned.

Introduction
The current project of infusing Gerontological Competency content into foundation coursework and syllabi for undergraduate and graduate social work students across at least three of four possible subject content areas began with a successfully funded proposal to the John A. Hartford foundation. The proposal was funded during the second funding cycle of the Council on Social Work Education: Curriculum Development Institute (CDI-2) entitled; A Planned Change Model: Preparing Gerontologically-Competent Graduates, Council on Social Work Education (CSWE): Gero-Ed Center, Curriculum Development and Implementation Training Course. The program itself is the benefactor of an earlier pilot project entitled: The CSWE Geriatric Enrichment in Social Work Education Project of which Dr. Nancy R. Hooyman (2006) served as the principal investigator and Suzanne St. Peter served as Project Director and a number of personnel and faculty from the original study.

The graying of civilization, especially in developed countries has become a well established phenomenon over the past few years (Basham, 2009). The lack of available care providers from professional and para-professional ranks, to provide needed social and health care services has also been established, as well as serious limitations on training, and educational specialty resources to produce adequate numbers of these providers, with technologies sought to bridge the widening service gap (Basham & Kang, 2010). The John A. Hartford Foundation in collaboration with leaders in gerontology education affiliated with the Council on Social Work Education (CSWE), have initiated a major United States based national effort in higher education to begin to remedy this problem in part by training and identifying leaders in gerontology.
focused education and to infuse foundation professional courses and develop advanced or specialty curricula in Aging (Hooyman, 2006).

**Project Description**

The University of Texas at Arlington, School of Social Work, was competitively selected to participate in a mentored training and foundation curriculum gerontology infusion program, from 2008 until 2011. The program included initial online and annual competency building training in “a planned change model” for curriculum development and monthly telephone mentoring and conference calls, along with other successful funded project recipients and peers. Additionally, email and web based consultation and resource archives contributed to progression of project goals and sharing of best practices. Annual and final progress and evaluation summaries, derived from web based curriculum sharing and survey data collection, were required during implementation. Grantees committed to attending and participating in CSWE and Hartford day long faculty development training workshops along with special meetings on networking, tips on filing grant applications for more extensive projects, referral to web based resources both publicly and privately accessible to improve curricular and gerontological, or aging, knowledge. During the implementation phase, course syllabi and other resources were submitted for competitive posting of best practices in curriculum development and shared with the aggregate of gerontology training cohorts and amiable for use by other programs seeking model curriculum and assignments for training students in gerontology.

Over the three year funding cycle both undergraduate social work foundation coursework and entry level graduate foundational coursework syllabi were infused with gerontological focused educational content. Furthermore, the grant and project required infusion into course syllabi across at least three of the four traditional education core content areas of social work; direct practice in social work, human behavior in the social environment; social welfare policy and social work research. Specialty or advanced gerontological coursework development was not a requirement for this project.

**Barriers to Infusion**

Among the barriers to infusion of gerontological course content were concerns that time commitments would detract from resources needed by the faculty member to achieve success in their own non-aging substantive area of research and scholarship, or teaching. In some instances there were financial incentives to resist change among faculty whom had had their texts adopted for foundation course use, of which the gerontology content focus was absent or was not as substantial as other texts written by subject experts, or aging specialists. In a number of instances faculty also cited competing demands and lack of administrative support as reasons for limited interest or commitment to developing or teaching gerontological content. Student resistance was due to selective lack of interest among some students who lacked experience, held stereotyped and negative views of the elderly and those who had invested into other areas of social work interest and training.

**Technological Project Infusion**

Technological infusion occurred as part of the cohort training process as well as in dissemination of progress on the project and in the instructional resources and syllabi created to infuse gerontology content. Internet and communication technologies (ICT) played an important role in conducting the projects gaining valued mentoring and experience and sharing best practices. Here are some of the common technology elements of project infusion for this project.

*General online program resources archive*
The Council on Social Work Education Gero-Ed Center or National Center for gerontological Social Work Training provides a general web resource available to Social Workers and other professions involved in training of gerontological service providers. The resource may be accessed on line at: http://www.cswe.org/CentersInitiatives/GeroEdCenter.aspx. The site contains resources on the various programs operated by the Gero-Ed Center including news and events, teaching tools, publications and student support initiatives.

**Project web platform and online training**

Additionally separate segments of this site disseminate web based project guidelines, schedules, and posted updates. The project reported in this paper fell within Cycle 2, of which a general description and list of funded projects and associated project mentors is located online at: http://www.cswe.org/CentersInitiatives/GeroEdCenter/Programs/CDI/CDI-2.aspx. Throughout the three year project, participating faculty were provided schedules, reporting forms, templates, announcements and other resources though a secured web. Online training course or webinars were also accessible and offered through an external participating educational institution, though time limited, to prepare all participants at the outset of the project.

**Conference calls**

Conference calls were scheduled monthly by a cohort mentor, to clarify tasks, timelines for completion and general project management information. Problem solving discussions were facilitated relative to member academic programs strategies to accomplish project goals. At times one member from each funded dyad of co-principle investigators could be available consistently to assure continuity of progress toward the completion of specified goals. Conference calls were the mechanism of process evaluation throughout the projects and provided numerous insights on how to sustain change efforts. A number of free and available conference calling programs exist online such as: http://www.freeconferencecall.com/index.asp though cohort’s calls were arranged by the assigned mentor and may vary, across groups.

**Distribution lists**

A project administrator was assigned to the aggregate of cohorts or all funded participants. Distribution lists were used frequently to update information and provide documents relative to opportunities, and management functions. Though each online email service has the capacity to build distribution lists, the project administrator used a campus Microsoft Exchange application for dissemination to participants.

**Document sharing**

Most frequently document sharing was accomplished by sending the document to a project cohort by email in a format that would permit group editing by using the Track Changes function of document review available in Microsoft Word. Some team member also option to use out of network document sharing application such as: Google Documents available at: https://docs.google.com/, or Dropbox, available at: www.dropbox.com/

**Encryption**

Though every attempt was made to disseminate developed curricular resources for use by other educators, some sensitive financial and business related information could be encrypted by those funded participants as needed. Most universities have made this option generally available and requires little more than inserting the word “encrypt” into the subject header of the electronic conveyed mail or document. All emails may be encrypted in outlook for off campus use using some simple setting changes available at: http://office.microsoft.com/en-us/outlook-help/encrypt-e-mail-messages-HP001230536.aspx though several free or inexpensive downloadable applications are also available, for selective single files encryption.
**Group scheduling**

Though many campuses have group scheduling options through shared schedules, some project participant’s opted to meet online using external resources. Perhaps one of the better known of the group scheduling applications is Google Calendar available at: https://www.google.com/

Though several others are reviewed through C-Net at: http://news.cnet.com/8301-17939_109-10255636-2.html. Many of the group or cohort events were centrally scheduled and managed by the project administrative team, or the cohort mentor.

**Joint papers and presentations**

Papers and presentations were arranged by the faculty grantees, or cohorts depending on individual academic interests. However, at least one faculty investigator was invited and required to attend and annual training (full day) held by the CSWE, Curriculum Development Institute and the John A. Hartford foundation to demonstrate project advances in curriculum development relative to gerontological content infusion and to also review progress and project specific barriers. These use various technical means from data analysis to video narratives, to show best practices in curriculum development.

**Online video conferencing**

Videoconferencing was used selectively by some participant who preferred more of a face to face experience across distance and from those universities who had the available technology infrastructure to hold video conferences. Skype can handle online conferencing of two parties as individuals or as two groups (available at: www.skype.com/), but has limitations when more participants are preferred. Some included campus had distance education video conferencing such as Adobe Connect (available for purchase at www.adobe.com/ConnectWebConference) which can accommodate multiple members across locations and times.

**Social networking**

Facebook (available at: www.facebook.com/) and LinkedIn (available at: www.linkedin.com/) were also common networks which participants used informally and off project to improve collaborations and develop larger interest networks among other interested professionals not included in the funded cohort. These resources were also used to locate potential subject experts for curriculum development, education training of students and informal communication within the professional community at large relative to gerontology interest areas.

**Technological Project Evaluation**

Evaluation of the curriculum, included pedagogical approach, project status and success, acceptance by students and peer colleagues and compliance with the requirements of project funders also included some technological focused methods.

**Student feedback surveys**

Student surveys were administered in paper or online relative to each campus included in the project. Courses offered with infused gerontology content were reviewed as offered and feedback utilized to improve the infusion of content, or assignments, over the duration of the project. In some instances the results were also incorporated into the annual presentations of those attending the training day to demonstrate gains made and best practices at the CSWE, CDI-cycle-2 development event.

**Cohort consensus seeking**

Cohorts used conference calls and email and distribution lists to identify the group’s assessment of the best methods to achieve goals that seemed problematic. Some cohorts achieved successes more rapidly that others in selected goal areas and were able to share their strategies.
and experiences. Informal consultation between monthly conference call also occurred to reinforce ideas discussed.

**Faculty interests surveys**

Faculty members were surveyed directly in faculty assemblies or large faculty meeting to gauge commitment and resistance to infusing gerontological content into various foundation courses. However, during annual report differing faculty project teams used more formalized survey methods to assess student, or often faculty opinion and perception to determine some measure of organization change in terms of support for curricular change. A common online survey application used was Survey Monkey (available at: [www.surveymonkey.com](http://www.surveymonkey.com)).

**Annual project evaluation reports**

Annual report templates were circulated to all cohort members with final due dates and information on consultation resources should problems arise in the evaluation or reporting of grant progress and results at the third year annual evaluation report. The report information called for input from all content areas of the infused curriculum and from all constituent groups.

Data analysis ranged from commonly available desktop applications such as Microsoft Excel to more complex approaches to data analysis using SPSS (Statistical Package for the Social Sciences) software.

**Technology and Gero-Ed Content Evaluation**

The final project evaluation and student survey was administered at the beginning of the summer semester of coursework in June 2011. Given reduced student enrollment as available course sections offered including Gero-Ed infused courses. In addition to field placements or internships which specified gerontological content, foundation courses in direct practice and human behavior in the social environment were infused with reading and assignments on gerontology and the foundation research classes were inclusive of an alternate gerontology research assignment for those interested in gerontology. An online project evaluation survey was administered to assess from among respondent students their level of interest in working with the elderly at the conclusion of the Gero-ed infusion effort (See table 1 below). Survey results suggest that students had become more interested in pursuing gerontology oriented Social Work careers and were more aware of career options in working with the elderly, in part through the technology focused project, online resources and survey evaluative methods of the project.

An additional portion of the online assessment focused on perceptions of curriculum infusion and preparation to work with the elderly at the completion of the Gero-ed infusion project (See table 2 below). A larger portion of respondents generally felt that they had been exposed to some content in working in gerontological careers in part due to the infusion effort. However, rates were higher for the direct practice content areas and human behavior in the social environment areas of content than for either research or policy, though nonetheless respondent expressed feeling more prepared for gerontology careers.

**Implications**

This continuing effort to generate interest in service delivery careers in gerontology is hoped to begin the process of creating a cohort of professionals who are prepared to provide needed services and health care for older members of our society. The goals of this effort would be to sustain elderly functioning and contributions and quality of life over the next several decades.

A number of barriers to developing a Gero-ed foundation curriculum infusion program were overcome by networking with peer colleagues and mentors in an intensive training and development program heavily oriented toward using technological means in both the infusion and project evaluation phases. Infusion efforts increased both interest in aging careers for Social
Workers in training and also improved perceptions of exposure to aging content and confidence in foundations gerontological skills.

**Discussion**

However, some advanced coursework developed synergistically, as a result of the project effort along with the co-occurring emergence of interest among students and faculty to develop a specialized gerontological certificate program. Faculty interest was sufficiently raised, that another funded project was funded to in fuse gerontological content into an advanced mental health curriculum, another faculty applied for funding to develop gerontological content into other advanced direct practice coursework to create an advanced specialty in gerontological practice in Social Work. Though the application was unsuccessful and unfunded, the senior faculty member altered authorship of several Social Work texts to include greater portion of content on working with the elderly and families of the elderly. The academic Dean personal and increased professional interest sufficiently to apply for a professional development grant from the Hartford foundation to mentor top academic administrators to become leaders in Social Work educational programs focused on gerontological content and development.
References
**Table 1:**

*Online survey: Interest in working with the elderly (n = 132)*

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware that many available social work jobs now and in the future involve working with elders?</td>
<td>Yes</td>
<td>90.2%</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>9.8%</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Do you feel that learning about elders would be a helpful part of your social work education whether or not you presently plan to work with that population?</td>
<td>Yes</td>
<td>89.4%</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Not Sure</td>
<td>10.6%</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>After graduation, would you consider taking a job that involved all or part of the time working with older adults?</td>
<td>Yes</td>
<td>65.2%</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>10.6%</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Not Sure</td>
<td>24.2%</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>To date, have you ever had a job or volunteer position which involved working with elders?</td>
<td>Yes</td>
<td>58.3%</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>41.7%</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Do you now or have you in the past had a sustained meaningful relationship with an older adult(s)?</td>
<td>Yes</td>
<td>36.9%</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>8.5%</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>If yes, was the person(s) a relative? (Please specify) 54.6%</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>In your education to date at UTA SSW would you say that information about aging has been included in your social work courses?</td>
<td>Yes</td>
<td>71.0%</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>29.0%</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>answered question</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skipped question</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 2:  
*Online survey: Assessment of curriculum infusion and preparation (n = 132)*

<table>
<thead>
<tr>
<th>Have the practice courses you’ve taken included aging content?</th>
<th>No content</th>
<th>Some content</th>
<th>A lot of content</th>
<th>N/A</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>have not had any content</td>
<td>12</td>
<td>102</td>
<td>9</td>
<td>7</td>
<td>1.98</td>
<td>130</td>
</tr>
<tr>
<td>answered question</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skipped question</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Think about the courses you have had and the content on aging that they have had whether it was in the form of theories, examples, skills or information. With this in mind, please respond to the following questions.

Have the policy courses you’ve taken included aging content?

<table>
<thead>
<tr>
<th>Have the policy courses you’ve taken included aging content?</th>
<th>No content</th>
<th>Some content</th>
<th>A lot of content</th>
<th>N/A</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>have not had any content</td>
<td>27</td>
<td>75</td>
<td>10</td>
<td>19</td>
<td>1.85</td>
<td>131</td>
</tr>
<tr>
<td>answered question</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skipped question</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Think about the courses you have had and the content on aging that they have had whether it was in the form of theories, examples, skills or information. With this in mind, please respond to the following questions.

Have the human behavior courses you’ve taken included aging content?

<table>
<thead>
<tr>
<th>Have the human behavior courses you’ve taken included aging content?</th>
<th>No content</th>
<th>Some content</th>
<th>A lot of content</th>
<th>N/A</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>have not had any content</td>
<td>11</td>
<td>89</td>
<td>24</td>
<td>7</td>
<td>2.10</td>
<td>131</td>
</tr>
<tr>
<td>answered question</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skipped question</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Think about the courses you have had and the content on aging that they have had whether it was in the form of theories, examples, skills or information. With this in mind, please respond to the following questions.

Have the research courses you’ve taken included aging content?

<table>
<thead>
<tr>
<th>Have the research courses you’ve taken included aging content?</th>
<th>No content</th>
<th>Some content</th>
<th>A lot of content</th>
<th>N/A</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
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<tr>
<td>have not had any content</td>
<td>51</td>
<td>39</td>
<td>7</td>
<td>32</td>
<td>1.55</td>
<td>129</td>
</tr>
<tr>
<td>answered question</td>
<td>129</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skipped question</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Think about the courses you have had and the content on aging that they have had whether it was in the form of theories, examples, skills or information. With this in mind, please respond to the following questions.

How well do you feel you are prepared to practice with older adults in your area of interest?

<table>
<thead>
<tr>
<th>How well do you feel you are prepared to practice with older adults in your area of interest?</th>
<th>Well</th>
<th>Somewhat</th>
<th>Little</th>
<th>None</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>have not had any content</td>
<td>15</td>
<td>58</td>
<td>46</td>
<td>11</td>
<td>2.41</td>
<td>130</td>
</tr>
<tr>
<td>answered question</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skipped question</td>
<td>2</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Promoting Positive Learning Communities: University and School Collaboration on Research

Paul Edward Carlson
Diane Elizabeth Prince
Teresa LeSage Clements
Barba Aldis Patton
University of Houston-Victoria
University and School Collaboration on Research

Educational research often depends on a complex relationship between school personnel and university faculty. There are potential advantages and disadvantages to the school personnel, to the researchers and to the research results that need to be considered by all parties.

Although educational researchers understand that access to schools, classrooms, teachers and students is essential for meaningful studies, the question of gaining that access and the usefulness of field studies must be addressed. What Wanat referred to as “access and cooperation” might summarize the researcher’s dilemma when wishing to do field studies (Wanat 2008). This presentation touched upon both of these by presenting a recent survey of Texas universities’ Deans and Directors of Education that addressed access, and a case study of recent school/university research that highlights the issue of cooperation by a school district and the participants.

Education Deans and Director’s Survey: School Access to Conduct Research

Texas Education Deans and Directors were surveyed to assess their observations of whether their university faculty members were given access to public schools for research. The question of whether there is collaborative research being conducted under the present pressures effecting school districts and increasing pressures on university faculty to publish was addressed in the survey.

Fifty-five individuals were sent five questions with opportunities to comment on each. Ten responded to the survey. One question of particular importance to the survey was, “If there are barriers within public schools that prevent active research, which of the following apply?” Of those who responded, 89% reported that “High Stakes testing in the schools,” presented a barrier. Also, in additional comments to this question, participants referred to “accountability pressures in schools,” and that, (Research and Evaluation) department resistance (in schools) and burdensome application procedures … mostly yield denials.” Additional data gleaned from the survey were presented.

School Cooperation: Validity Issues

Educational researchers at the University of Houston-Victoria sought to investigate the local characteristics of student disengagement. Following their review of recent research, they concluded that the schools and school districts could only respond adequately to disengagement when local realities such as family, school, peer and individual factors were studied.

The researchers met with administrators in the central district office and discussed the research questions and general qualitative methodology that they believed would uncover important local factors. Following an initial meeting a planning session was scheduled and the principal of a district alternative school appeared. She reviewed the research plan and indicated that she would enlist some faculty to help her in the selection of 12 students for the study. Following this meeting, a Memorandum of Understanding was developed that described, in general terms, the participation of the University and the School District.

In this case, the following school-related factors threatened the credibility of the research:

- Once the administrators agreed to the initial proposal to investigate student disengagement, they selected the school in which they would conduct their research and its principal.
- The principal selected the three teachers and the teachers and the principal selected the twelve student subjects. The seven family members who participated were related to some of the twelve students.
Since the researchers were approved by the school administration and since some of the investigation occurred on campus, the subjects (students, teachers and family members) may have provided “filtered” responses. The researchers’ desire to keep the option for continued research open may have influenced their comportment during interviews and thus may have limited both their objectivity and their willingness to explore difficult topics in more depth.

Although the researchers found a high degree of agreement among and between the students, teachers and family members regarding disengagement factors reported in this presentation, significant questions arise as to the internal validity of the research due to the selection process and to the location in which some of the interviews were conducted. The researchers recognize that their subjects represented a small “convenience” sample and make no claim to external validity. However a number of local disengagement factors were uncovered that might be productively addressed by changes in school procedures and policies.

The insights obtained through interviews with students, educators, and family members offer locally-relevant descriptions of student disengagement and identified important factors that support student achievement. However the sample size and the limitations linked to the selection process limits the study and can only provide suggestions regarding policy and procedural changes in the school district.

A partnership between university-based researchers and public school authorities is complex. Motives, intentions, and the existential perspectives of each participant are often tangled in such a way that the quality of the research can easily be compromised. The common ground, however, is significant. Schools as agents of the public and researchers guided by professional motives and their particular skills can address the threats together in order to enhance the quality of both the investigations and the quality of public education.

References
When Communities Know Better They Do Better

Patti Cost
Weber State University
“An education that teaches you to understand something about the world has done only half of the assignment. The other half is to teach you to do something about making the world a better place.”

Author unknown.

**Introduction**

Studies show that college students who take part in Service Learning (SL) / Community Based Learning (CBL) classes report that they are more likely to have a positive college experience thanks in part to a better understanding of their course material, more frequent interactions with faculty, and stronger connections to the community. Instructors that teach SL / CBL courses have a responsibility to help their students become morally and civically responsible individuals. In doing so, students can begin to recognize themselves as members of a larger social network and therefore are more likely to consider social problems to be partly his or her own.

The inclusion of a well thought out, implemented Community Based Learning (CBL) experience is sure to bring a new kind of excitement to the classroom and a deeper level of intellectual engagement. If the design of the course is sound students will have the opportunity to apply the majority of the skills they have learned in the traditional classroom and now apply them to real issues in any community. Initially, most participants will be apprehensive and often afraid to go into the “real world.” Students of this author have created an analogy of the CBL course they take from her as being baby birds in a nest and momma bird is pushing them out of the nest to fly. The baby birds must feel afraid and are extremely apprehensive, but momma bird is confident that they can and will fly off because she has taught them the skills they need to be successful. The traditional class rooms where most students have spent three to four years are often viewed as “safe” i.e. “the birds nest.” Anytime an educator challenges a student to do something out of their comfort zone, i.e., “momma bird pushing them out of the nest to fly” they are often faced with resistance. Most students don’t like change but once they realize that they are capable of “walking the walk and talking the talk” their confidence begins to build and they begin to believe in themselves. Based on experience I am confident that when students are civically engaged they:

- are more likely to recognize and appreciate human diversity and commonality.
- learn to behave and work through controversy.
- learn how to solve “real” problems and realize they are part of the solution rather than the problem.
- tend to be more “proactive” instead of “reactive.”
- assume leadership and membership roles in professional organizations.
- develop empathy, ethics, values, and a sense of social responsibility.
- have the chance to become better people.
- develop effective communication skills.

**Community Based Learning Defined**

“Community Based Learning,” “Service Learning,” and “Experiential Learning” are terms that are often used interchangeably. For the purpose of this paper the concepts and experiences will be referred to as Community Based Learning (CBL). According to the Office of Community Based Learning – Center for Teaching and Learning at Stonehill College in Easton, MA, defines CBL as ”when students perform service learning projects or conduct community based research that not only benefits local needs but is designed collaboratively between community based organizations and campus faculty and students.”
The Graduate School of Education and Information Studies (GSEIS) office at the University of California Los Angeles (UCLA) defines CBL as “the broad set of teaching/learning strategies that enable participants to learn what they want to learn from any segment of the community. It may also be defined as experiential learning where students and lecturers collaborate with communities to address problems and issues. Simultaneously both are gaining knowledge and skills and advancing personal development. There is an equal emphasis on helping communities and providing valid learning experiences to students.”

The National Commission on Service Learning defines Service Learning as “it’s a teaching and learning strategy that integrates community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.”

Goals of Community Based Learning

Based on the literature review there are many goals of CBL. In 2004, according to Florida International University (FIU) a list of 20 Goals of Community Based Learning was released. Florida International University believes that CBL is designed:

1. To enhance student learning by joining theory with experience and thought with action.
2. To fill unmet needs in the community through direct service which is meaningful and necessary.
3. To enable students to help others, give of themselves, and enter into caring relationships with others.
4. To assist students in integrating theory and practice.
5. To enhance the self-esteem and self-confidence of students.
6. To develop an environment of collegial participation among students, lecturers, and the community.
7. To give students the opportunity to do important and necessary work.
8. To increase the civic and citizenship skills of students.
9. To assist agencies to better serve their clients and benefit from the infusion of enthusiastic volunteers.
10. To expose students to societal inadequacies and injustices and empower students to remedy them.
11. To develop a richer context for student learning.
12. To provide cross-cultural diversity experiences for students.
13. To better prepare students for their careers / continuing education.
14. To foster a re-affirmation of students’ career choices.
15. To keep students in class and serve as a tool for retention.
16. To give students greater responsibility for their learning.
17. To help students know how to get things done.
18. To impact on local issues and needs.
19. To have the opportunity to build leadership skills.
20. To allow students to learn and develop problem solving and critical thinking skills.

Common Characteristics of Community Based / Service Learning Projects

According to Eyler and Giles, Where’s the Learning in Service Learning (1999), they
write that authentic Service Learning (SL) / Community Based Learning (CBL) projects, while endlessly diverse, have some common characteristics.

- Participants usually view the projects as positive, meaningful, and real.
- A valid CBL experience involves cooperative rather than competitive experiences and thus promotes skills associated with teamwork, community involvement, and citizenship.
- A CBL experience addresses complex problems in complex settings rather than simplified problems in isolation.
- These types of projects offer opportunities to engage in problem-solving by requiring students to gain knowledge of the specific context of their CBL activity and community challenges, rather than only to draw upon generalized or abstract knowledge such as might come from a textbook. As a result, CBL offers powerful opportunities to acquire the habits of critical thinking; i.e. the ability to identify the most important questions or issues within a real-world situation.
- CBL or SL projects promote deeper learning because the results are immediate and uncontrived. There are no “right answers” in the back of the book.
- As a consequence of this immediacy of experiences, CBL is more likely to be personally meaningful to participants and to generate emotional consequences, to challenge values as well as ideas, and hence support social, emotional, and cognitive learning and development.

**Service learning / Community Based Learning ARE NOT:**

- An episodic volunteer program.
- An add-on to an existing school or college curriculum.
- Logging a set number of community service hours in order to graduate.
- Compensatory service assigned as a form of punishment by the courts or by school administrators.
- Only for high school or college students.
- One-sided: benefitting only students or only the community.


**University Centers Devoted to Community Based Learning**

Universities across the United States are now devoting office space and personnel to manage CBL or SL Centers. Weber State University (WSU) has a Community Involvement Center (CIC) and once students are registered with the center they can help students with any of the following:

1. If a student needs help finding an appropriate site they can utilize the CIC’s Service Opportunity Directory [http://www.weber.edu/CommunityInvolvement](http://www.weber.edu/CommunityInvolvement). There are over 100 sites listed.

2. Students can have the CIC record and track their service learning hours. **Why would a student want the CIC to track their hours?**
   - The CIC will send the professor monthly reports summarizing the hours that have been completed.
   - The CIC can write letters for future employers or graduate programs on a student’s behalf.
   - Students become eligible for recognition opportunities for the service they provided in the community.
The CIC can verify a student’s contributions to the community if they apply for scholarships requiring community involvement.

Touch screen monitors are located in some of the community organizations and they act as check-in/check-out stations for recording service hours. If a student serves at any of the organizations that have monitors in place they can record their hours with the touch of a finger. That means no paperwork for them!

3. If a student has special needs related to CBL or SL the CIC will provide one-on-one assistance to address their needs.

HLTH 4150: A Senior Capstone Class Offered at WSU with CBL Designation

The author of this paper teaches a senior level capstone class at Weber State University (WSU) in the Department of Health Promotion and Human Performance titled HLTH 4150: Needs Assessment and Planning of Health Promotion Programs. This class is worth four credit hours and in the past four years enrollment of this class has tripled in size. Students can work alone or in groups of no more than four, then they are encouraged to choose a community partner (preferably a nonprofit organization) that will welcome them to plan, implement, and evaluate four interventions or one big one (like a Health Fair). Students are encouraged to work in small teams because planning, implementing, and evaluating one program is too labor intensive for the author as well as for the student or students. The final program plan is formatted like a Master’s thesis and it is difficult for one person to proof all projects alone. However, if a student has a special circumstance and decides that working alone is what he/she needs to do I will work with them. Fall 2011 and spring 2012 combined, 64 students successfully completed the course. In these two semesters alone 20 different projects were planned, implemented, and evaluated.

Getting Started

Once the student or team of students has met with and interviewed their chosen community partner and the partner has agreed to let us help them, let the fun begin. Before the students get the opportunity to work with their community partners they must do some research.

Before they start Chapter One they need to create a section called the Abstract. I usually have them write this at the tail end of their project and it consists of 250 words or less that fully describes their project. Following the Abstract is a section called Acknowledgements and this is where they get to thank anyone they choose that helped them bring this project to fruition. Following Acknowledgements is their Table of Contents (TOC). I provide them with the TOC and the order in which their program plan must be in.

The first half of Chapter One consists of an Introduction and it must include the who, what, when, where, and how of the project. Then the team creates a brief Biography of themselves and they must also note what their Roles and Responsibilities were in the team. They then research and report on the definitions, benefits, advantages, and disadvantages of Community Based Learning (CBL) and Community Based Research (CBR). The team then defines what a Community Partner is, and they are required to note the advantages and disadvantages of having a Community Partner. Last but certainly not least they describe the Process of Building a Community Partner. The second half of Chapter One consists of the team:

- Writing a Description of their Community Partner. Students must look at census data and any other current and relevant data that will help them describe their partner and the city in which they live and provide their services. I refer to this as “painting a picture of the community partner.” Since there are so many projects going on in one semester and as a class we can’t visit each one, therefore; this comprehensive description will allow the class to create a mental image of all projects.
Then they develop a *Statement of the Problem*.

Next is the *Need for the Intervention*.

The next step is the development of a *Mission Statement* specific to the students’ program.

A *Program Philosophy* is also developed.

The student or students then develop a *Timeline* so everyone can see where they were and what they were doing.

The next to the last section of Chapter One is called *Definition of Terms*. I ask them to identify specific terms that all readers might not fully understand. For example, spring semester 2012 we worked with a counseling center that provides resources for young people who have left or have been exiled from the Fundamentalist Church of Jesus Christ of Latter Day Saints (FLDS) when their leader Warren Jeff’s was arrested and sent to prison. The first group of young men this counseling center helped are referred to in the media as “The Lost Boys.” I do trainings on Sexual Health and my students plan, implement, and evaluate sessions on Communication, Substance Use and Abuse, and Coping Skills to name a few.

Chapter One ends with a *Summary*.

**Chapter Two is the Literature Review** and they must report on Healthy People 2010 (HP 2010) and identify objectives noted in HP 2010 that match objectives for their program. The team then researches and reports on what Health Promotion Programs are, what their program is, including identifying foreseen Benefits and Challenges. The team then researches Planning Models typically used in health promotion. They must describe the different Type of Models, Purposes, Value, Advantages, and Disadvantages, and then they describe in detail the Planning Model they have chosen to use for their program. They must Define the Model, do a Historical Perspective, and then describe the Application of the model specific to their program. Planning models provide a framework in which the students can work and models provide a structured outline that has been field tested. If every step of the planning model is done correctly it will assist the planner or students in this case to make sure they dotted all their I’s and crossed all their T’s. The next part of the literature review is on Qualitative and Quantitative Research. They must define each one, describe how to develop questions specific to the type of research, and then explain how Qualitative and Quantitative data is analyzed. This leads them into Developing a Survey, Reliability, Validity, and SMOG.

All teams are required to create a one page survey so they can do a needs assessment. A program shouldn’t be developed if the planner hasn’t identified the needs of the target population. Weber State is located in Ogden, Utah and large portions of the population that my students and I serve are Hispanic. It is not unusual to also have to translate surveys or marketing materials into Spanish to assure that all materials can be read by the target population. Once the survey has been developed students must run a SMOG Readability Test to determine the reading level. SMOG is an acronym that stands for Simplified Measure of Gobbledygook. Based on the analysis of the needs assessment data they plan, implement, and evaluate four interventions or one “big” one like a Health Fair. Upon completion of the intervention(s) the students write a comprehensive program plan. Most of which has been described here, then the team secures an out processing meeting with their community partner and at that time they discuss what worked and what didn’t. Students report over and over again that they loved facilitating all of the meetings with their community partners because these meetings allowed them to truly feel like an employee not a student. At the conclusion of the final meeting the community partner is given
a bound copy of the comprehensive program plan. It is our hope that community partners will utilize the program plan to sustain the program for years to come.

Chapter Three is dedicated to the Goals and Objectives specific to each program. Chapter Four is the Methods Section and in this chapter teams get to describe in detail every step they took to bring their program to the end. Chapter Four will allow the community partner to duplicate the interventions because everything my students did can be found in this program plan. I encourage the students to recall every step so anyone can pick up their program plan and duplicate their efforts. There are so few funding sources that community partners need to be able to pick up where my students ended so the programs we develop can become sustainable.

Chapter Five is titled Results and in this chapter the students describe the results of their Needs Assessment Survey and the Exit Survey’s or Interviews they did at the end of their program. In this chapter students often put in graphs or pie charts so community partners can understand the results better. Chapter Six includes the Summary, Discussion, Conclusions, and Recommendations. This is another very valuable chapter for our community partners because the Conclusions and Recommendations need to be taken to heart so future programs can work. Many students report that this is a difficult chapter to write because they are afraid they might hurt their community partner’s feelings. I always just say that constructive criticism is valuable and when given with the best of intentions no one’s feelings will be hurt. The program plan ends with a section titled References, and then Appendices. Students must include everything in the Appendices. Examples include but are not limited to, Letters to Vendors, Flyers developed to market the interventions, Surveys, Thank you Letters, all Lesson Plans, etc. Again, these materials can be duplicated by community partners if and when they run the program again. The final program plan must be bound and have protective covers on the front and the back. The title page should POP and it must include the name of the program, the team member’s names, the semester the project was done, and pictures if they are appropriate.

Conclusion

Building a class that has Community Based Learning as its major component might be the hardest thing you will ever do but I assure you it will be the most rewarding thing you will ever do. To watch “your baby birds” fly out of the nest knowing that it was you that taught them “how to fly” is the best feeling in the world. Time and time again I have former community partners calling me asking when my students and I will be back. When I open up the Sunday paper or watch the five o’clock news and see media coverage on the things my students are doing I almost fall to my knees. If you refer back to the title of my paper, “When Communities Know Better They Do Better” I can and should apply these very words to my students. When they know better they do better too. I challenge you to incorporate CBL into your capstone projects class. Read all you can and talk to as many people as you can about this very important concept so you will feel empowered and comfortable teaching a CBL class. Just know that at the end of the day when you finally put your head on your pillow to rest, that if you have given your students the skills to go out into the “real world” and apply all that you have taught them then you have done your job as an educator. Benjamin Franklin said it best:

“Tell me and I forget.
Teach me and I may remember.
Involve me and I will learn.”

REFERENCES
Mentoring Pre-Service Teachers in an Online Environment

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Eastern New Mexico University (ENMU) was established in 1934 in Portales, New Mexico, a rural community in southeastern New Mexico. The university is a federally designated Hispanic-serving institution whose population reflects the diversity of both the state of New Mexico and the nation. The university consists of four colleges and a graduate school. The College of Education and Technology within ENMU maintains a premier leadership role in providing school districts with quality new teachers prepared to meet the needs of an increasingly diverse population. The bulk of the Teacher Education Program (TEP) has traditionally been delivered in a face-to-face format for prospective teachers that has been coined "pre-service" education.

As pre-service teachers, students enter the TEP at the beginning of their junior year of academic studies. Along with learning educational theory, students slowly begin to learn the art of classroom teaching. Students are given increasing responsibilities for developing and implementing instruction, moving from the responsibility of developing single "lessons" in their initial TEP coursework to complete responsibility for teaching lengthy units of instruction as they reach their senior year. Student teaching is the culmination or capstone experience for these pre-service teachers.

Student teaching has traditionally consisted of sixteen weeks of supervised experience in an elementary or secondary classroom under the tutelage of both a local teacher and a university faculty member. Student teachers are observed and evaluated three times across the semester. In addition, student teachers compile a notebook designed to document and assess mastery of essential competencies for pre-service teachers. While this method of preparation has produced thousands of effective teachers since the inception of the College of Education and Technology, continuation of this method alone may not be an effective practice as the university attempts to meet the needs of an increasingly mobile student population.

The availability of online coursework has increased the presence of Eastern New Mexico University from simply meeting the needs of adjacent school districts to providing teachers across the state of New Mexico and the nation. A recent review of student teacher placements made during the 2011-2012 school year indicated placements made in 26 communities across the state, as well as placements in Arizona, Texas, and Ohio. Given that New Mexico is ranked as the fifth largest state in terms of area, the supervision of pre-service teachers scattered across the state-and indeed across the region--poses an increasingly obvious issue: how can a limited number of university supervisors successfully prepare student teachers who may be located 300 miles or more from the university? The answer to that essential question may be tied to two paired components: mentoring and technology.

"While mentoring has been associated with many different purposes-emotional support, occupational socialization, and pedagogical guidance, for example-the practice of mentoring is well suited to helping novices learn the practice of teaching" (Schwille, 2008, p. 140). Drake, Drake, and Ewing (2010, p.343 noted that "students who are the happiest and academically the most successful have developed a solid relationship with a faculty member who can help them navigate the academic and social shoals".

The relatively easy access to technology offers an interesting and generationally effective methodology for mentoring from a distance. The 2011 Sloan Survey of Online Learning conducted among 2,500 colleges and universities nationwide found that approximately 5.6 million students were enrolled in at least one online course. In addition, as long ago as 2005, Michael Arrington of "Facebook" noted that 85% of all college students were engaged in this particular form of social media. In addition, Orland-Barak and Rachamim (2009) viewed...
technology, particularly the use of video, as a tool for mentoring student teachers, as both a trigger for reflection and a valuable addition to the university supervisor "tool box".

This contribution is representative of research that investigates the possibility and the promise of pairing mentorship and technology within teacher education preparation programs. Frequent contact has been identified as an essential element of the mentoring relationship (Washburn-Moses, 2010). Research on teacher education and preparation notes that "high quality research in mentoring remains scarce" (Washburn-Moses, 2010). While little has been written on the topic of distance based mentorship, research consistently points to the necessity and benefits of mentorship within the initial years of entrance into the teaching profession (Gardiner & Robinson, 2009; Orland-Barak & Rachamim, 2009; Parker, Ndoye, & Imig, 2009; Ingwalson, 2006; George & Robinson, 2011; Alger & Kopcha, 2011; Washburn-Moses, 2010). "Statistics indicate that although teaching is a relatively stable occupational category, 18%-50% of teachers choose to leave their positions after the first 3 to 5 years" (George & Robins, 2011, p. 24). George and Robins further note that twenty-five percent of all students graduating from a teacher education program never enter the teaching profession and that there is a thirty-three percent probability that a first year teacher will leave the profession. Concurrently, Ingwalson (2006) predicted a shortage of teachers within the educational system due to both the number of projected vacancies associated with the retirement of baby boomers coupled with the attrition rate of new teachers. Research focusing upon quality mentorship at the point of entry into the field, using technology enhanced tools most familiar to students, may prevent these highly trained novices from prematurely exiting the profession and concurrently contributing to the lack of availability of highly qualified teachers to educate our nation's children.

**Methodology**

This study is an example of an instrumental case study (Stake, 1994) where the case itself is of secondary interest (Campbell, 1975). The particular case is examined in order to pursue and facilitate an understanding of teacher perceptions and the degree to which perception influences collaboration between general and special education teachers. A solid understanding of content is central to this study because it helps the reader to better understand the motives of the individuals involved in the events described herein, and leads directly to implications that make findings relevant to contemporary practice.

This study originated in the spring of 2001 as university supervisors/researchers initially began to consider the possibility of mentoring pre-service "student teachers" using camcorders to supplement face-to-face observations of student performance. Two students in northern New Mexico agreed to participate, recording video of one of the three required formal teacher evaluations.

Following a period of research and reflection, researchers applied for a Distance Education Grant sponsored by Eastern New Mexico University. Upon receipt of funding, researchers expanded the study to include eleven teachers in the fall of 2011 and five teachers in the spring of 2012. Researchers wanted to examine the use of additional tools for mentoring students via distance learning, the efficacy of mentoring from a distance, and the perceptions of pre-service teachers following distance-based mentorship.

Students in the fall semester of 2011 and the spring semester of 2012 were mentored using the Blackboard Learning Management System, an online learning platform. Researchers established an online course that included use of the discussion board, email, instructional units, and electronic portfolios (E-folios). Each pre-service teacher was enrolled in the Blackboard class that could be accessed from any location with internet access. The class contained lesson
modules, opportunities for conversation via posted discussion board topics, a direct email link to
the researchers, and a virtual classroom where students could have synchronous face to face
contact with both the researchers and other pre-service students participating in the research. In
addition, pre-service teachers were advised that they could use a group “SKYPE” account to
conference with all participants.

Students were also given camcorders for videoing and recording classroom instruction. Each
student was asked to record himself/herself delivering a unit of instruction consisting of at least
one hour of direct instruction. Students were then asked to watch the video and to write a
reflective critique of their individual performances. Recordings were also emailed to the
researchers for additional review and critique. Both the student and researcher observations were
included as documentation of student teacher performance.

The subjects in this longitudinal study were the general and special pre-service educators
engaged in online mentoring and the “cooperating teachers” in whose classrooms they were
placed. Interviews were chosen as the preferred method of data collection because they provided
a focused method that directed the participants to concentrate on the topic of interest and allowed
the researcher to gain insight from the participants’ perspectives of the situation (Yin, 1994).
Pseudonyms were used in reporting data in order to preserve individual differences.

Data was analyzed across individual characteristics, utilizing an atomistic approach reflecting
the intent to present useful and accurate generalizations rather than articulate a narrative (Husen,
1979; Willis & Jost, 1999). Data analysis began with the use of open coding in an issue-related
framework (Malinoski, 1984) to identify interactions that pertained to instructional collaboration.
Significant elements were separated from the surrounding texts and organized into a new data-
driven context of a generalized nature (Malinowski, 1984) that was descriptive of how student
teachers were mentored via distance learning. Validation of findings was provided by
triangulation involving multiple researchers in order to combine several lines of sight for
analysis and interpretation of the data (Denzin, 2000).

Results

Interviews with pre-service teachers in the spring 2011, fall 2011, and spring 2012 semesters
were recorded and transcribed. Review and analysis of the transcribed interviews revealed two
recurrent themes associated with the distance based supervision: the recruitment and willingness
of pre-service and cooperating classroom teachers to mentor and be mentored via technology and
issues related to the insertion of technology into the mentoring process.

Recruitment and Willingness to Participate

Not all pre-service teachers were comfortable with mentoring via distance education.
Consistent with research related to effective undergraduate pedagogy (Morgan & Keitz, 2010;
Chen, 2011; Vroni, 2011) some students expressed a preference for face to face contact with the
university supervisor, rejecting the ease of communication via video conferencing.

I really don’t like videoing myself. I don’t want to do it and I don’t like to do
it. I would much rather have you come and observe me so that we can talk about
things while they are happening. (Lake)

I will if I have to-but can’t I just come out and see you? Or can’t you just
come over and see me? (Jones)

I didn’t like seeing myself: I need to go on a diet. (Robinson)

In addition, one student indicated that he felt that the additional responsibility of videotaping
and video conferencing was an added burden and was reluctant to participate if participation
was, as the university supervisors stated, “voluntary”.

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I don’t mind doing this if you want me to, but this seems like another thing for me to do and I don’t have time to do this. I would rather have you come and visit in my classroom (Smith).

Similarly, one cooperating teacher expressed some reluctance to video recording pre-service teachers as they conducted instruction within the public school classroom. Despite the fact that parents of all school-aged students within the classroom had given permission for videotaping, she expressed concern related to the possible violation of privacy. It should also be noted that cooperating teacher expressed concerns regarding the additional time that might be required.

I am not sure if the parents would approve of having us tape the students. I know that the camera is supposed to be focused upon the student teacher but we always manage to get at least one student into the frame. Is that a violation of their privacy? I don’t know if I want to spend the time doing this and then have parents say that we can’t use the video for anything. (Cunningham)

The Insertion of Technology

While most of the subjects and their cooperating teachers were willing to fully participate in the study, the addition of technology into the mentoring process added additional dimensions of both challenge and support. Challenges associated with the insertion of technology into the mentoring process were related to user unfamiliarity with web-based technology, internet connectivity, the operational use of the equipment, and difficulties associated with accurate portrayal of pre-service teacher performance.

Difficulty with Using Distance Learning/Blackboard Tools

Although all pre-service teachers reported that they had taken at least one online class and were frequent users of social media, none had previously created a video that would be used as an assessment of academic performance. Consequently, subjects reported difficulty associated with recording and submitting videos that were to supplement face to face observations.

I tried to upload the video. I don’t know what I was doing wrong but it just wouldn’t upload. I had to just take the camera out to my university supervisor. (Garza)

I upload pictures to Facebook all the time but I just can’t seem to figure out how to get the video of my teaching a lesson to upload to Blackboard. (Wilson)

I called the “IT” department and they tried to help me upload my video but I just couldn’t get it to go through. (Guzman)

I finally got my video loaded. I don’t know what I did and I don’t know if I could do it again. (Black)

Internet Connectivity

New Mexico, while the fifth largest state in size, remains one of the most underdeveloped in regard to internet connectivity and access. Many rural areas have limited access and continue to use outdated “dial-up” technology. Consequently, some subjects in the study experienced technical difficulty that might best be attributed to the lack of availability of high speed connections.

I was o.k. as long as I stayed in town and tried to access everything but when I went home, I was unable to do anything. My internet is just too slow out there. (Jones)

The only place that I can go to try to look at my class or load my video is the library in town. There I have a 30 minute limit on how long I can stay on the internet since everyone wants to use it. (Garza)
Operational Use of Camcorders

All students were provided with identical camcorders that they could use to record themselves delivering instruction. The camcorders were designed to interface with any computer with a USB port. Operation of the camcorders could be characterized as “point and record” within minimal opportunities for deviation. Despite the ease of operation envisioned by the researchers, some pre-service teachers had difficulties operating the camcorders.

I just couldn’t make the camera work. I tried. Finally I just recorded my lesson on my cell phone. Then I couldn’t figure out how to transfer the video from my phone to you. (Black)

My camera worked and then it didn’t work. It is just like the other cameras and they all work. It just looks “dead” to me. (Johnson)

My cooperating teacher tried to help me to record myself. She held the camera as long as she could and then another teacher came in and took over. It took three people to record my video. (Robertson)

Portrayal of Performance

Researchers initially considered videotaping of student performance to be an equivalent to direct observation. Assuming that students would video and submit a “routine” lesson consistent with their developing levels of instructional competencies, researchers asked each participant to submit a “typical” lesson consisting of at least thirty minutes of instruction. However, participating students attempted to achieve perfection.

I wanted everything to be perfect. So I videotaped myself teaching the same lesson over and over until I thought it looked o.k. (Jackson)

I taped the lesson at least three times. The first time I didn’t like how the kids acted. They usually act better when they know I am taping. The second time I made some mistakes and we had some interruptions. (Anderson)

The kids don’t always act like themselves. I want my mentor teacher from the university to get a real picture of what is happening in the classroom. (Delgado)

In addition to submitting videotaped lessons to the researchers, subjects were also asked to view the taped lesson and to write a performance critique. Although acknowledging the difficulties associated with the practice, pre-service teachers also noted several benefits associated with videotaping their daily instruction.

I could see what I was doing. Sometimes I looked mad when I really wasn’t mad. I really do need to work on my body language. (Arreola)

I saw how easily my students could get me to go off topic. This was like watching somebody else. It made it much easier to critique myself. (Robinson)

Sometimes the students act nicer when they know that I am videotaping my lessons. I probably should video every day. (Black)

I like this better than having someone watch me and then tell me what I did well or what I needed to work towards. I can see this for myself. (Andrews)

Implications

Analysis of transcribed interviews confirms research examining the complex interactions of pedagogy and technology that have come to characterize this research (Washburn-Moses, 2010; Vroni, 2011; Schwille, 2008; Oland-Barak & Rachamim, 2009; Ingwalson, 2006; Gardiner & Robinson, 2009).

The original “Mentor” first appeared in Greek mythology. Mentor was the name of a trusted friend and wise advisor to Odysseus. When he later left to fight
in the Trojan War, Odysseus entrusted the teaching of his son Telemachus to Mentor. In modern times the word “mentor” is usually used in reference to “a friend and role model, an able advisor, a person who lends support in many different ways to one pursuing specific goals…sometimes the mentor must be a story teller; at other times an empathetic listener, occasionally it’s a coach’s pep talk that is needed. (Peddy, 1998, p. 24-25)

This study offers an opportunity to examine the impact of distance-based mentoring upon the preparation of pre-service teachers and attempts to answer the question “can pre-service student teachers be successfully mentored if university supervisor contact is supported through distance-based technology. Although preliminary results uncover additional questions that must be answered, as is often the case in uncharted territory, the efficacy of distance-based mentoring in teacher education programs remains unknown. The continuation of this longitudinal study across the coming academic year may offer further insight into the process, as well as introducing additional tools that may better meet the needs of all stakeholders.

Chen noted that student learning was maximized by “developing a sense that we are all in this together” (2011, p. 26). Mentoring has been identified as one of the most promising opportunities for sustaining new teachers and preventing the slow, yet steady, exodus from the profession (Hoffmeyer, Milliren, & Eckstein, 2005). It remains to be seen if the addition of technology offers tools that can successfully supplement the process.

I can’t say if I am totally confident that you (supervisors) get a picture of “the real world when we communicate from a distance. I know that I need more than just critique-I need the support too. I think that I would benefit from mentoring in my first year of teaching and would like to be able to continue these conversations with my university teachers. Technology can make that happen. We just have to work out some of the “bugs”. (Arreola)
References
Strategies for Stress and Life Management

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Introduction

Stress is a topic of great interest in American culture today (Seaward, 2004). This interest stems from people trying to balance multiple roles (e.g., wife, mother, homemaker), to cope with multiple pressures (e.g., finances, work demands), and to alleviate symptoms of so-called lifestyle diseases (e.g., colds, headaches, insomnia) that have direct links to the stress response. Although stress is an inevitable part of human existence and a commonly referred to topic, it is also one of the least understood health problems in the United States (American Psychological Association, 2012). As such, the purpose of this paper is to provide a succinct overview of (a) the significance of stress in the United States, (b) the basic stress process, and (c) the essential elements of stress management. The hope is that the material presented will be useful both personally and professionally to health and social scientists: that is, to assist readers to manage their personal stress, and also to provide professionals with a greater understanding of stress to assist others with stress and life management.

Stress in America

The results of multiple, large-scale surveys have found that nearly one-third of adults in the United States are living with extreme stress, and approximately half of those surveyed believe stress is damaging their health (American Psychological Association, 2007, 2009, 2012; Cohen & Janicki-Deverts, 2012). National, probability-based surveys conducted by the American Psychological Association (APA) have demonstrated repeatedly that three quarters of Americans experience symptoms related to stress in a given month, and approximately 40 percent of Americans feel stressed each day (APA, 2007, 2009, 2012). Furthermore, about half of Americans report that their stress levels have increased over the last five years (APA, 2007), and that stress has a negative impact on both their personal and professional lives (APA, 2007; Cohen & Janicki-Deverts, 2012). To compound matters, the same research suggests that people do not know how to take action to prevent or manage stress: For instance, 39 percent of those surveyed reported being poor at managing or reducing stress, and 44 percent felt unable to prevent themselves from becoming stressed (APA, 2012). Given such alarming statistics, health and social scientists need to understand the stress phenomenon so they are equipped to help themselves and others to manage stress.

What is Stress?

Despite the fact that stress research has been conducted for decades, there is no universally-accepted definition or conceptualization of stress (for a review, see Cohen, Kessler, & Gordon, 1995). Some researchers have used the term stress to refer to external events or stressors (e.g., Holmes & Rahe, 1967); others to the physiological effects of exposure to stressors (e.g., Cannon, 1932; Selye, 1956); and still others to individuals’ subjective evaluation of their abilities to cope with the demands posed by specific events (e.g., Lazarus & Folkman, 1984). These varying definitions of stress represent three broad traditions, or distinct theoretical perspectives, evident in the stress literature: biological, environmental, and psychological. The following sections provide an orientation to these perspectives and attempt to identify the central assumptions of each.

Biological Perspective of Stress: The Stress Response

The biological perspective, based on the pioneering work of Cannon (1932) and Selye (1956), focuses on the stress response, or the physiological reactions that occur in response to threatening conditions (for reviews, see Cohen et al., 1995; Greenberg, 2002). Detailed descriptions of the stress response are beyond the scope of this paper, but common bodily reactions include such things as increased blood pressure, heart rate, sweating, and muscular
tension. These reactions have been found to occur in response to wide variety of psychologically- and environmentally-threatening conditions (Cohen et al., 1995). Evidence also exists to support the claim that excessive, prolonged, or repeated stress responses over time place individuals at risk for the development of both physical and psychological disorders (Cohen, Janicki-Deverts, & Miller, 2007). For example, research suggests stress is a risk factor in depression (Hammen, 2005), respiratory-tract infections (Miller & Cohen, 2005), cardiovascular disease (Krantz & McCeney, 2002), and total mortality (Neilsen, Kristensen, Schnohr, & Gronbaek, 2008).

Environmental Perspective of Stress: Life Demands, Events, and Hassles

The environmental perspective of stress focuses on the assessment of environmental demands that are normatively, or objectively, associated with adaptive outcomes (e.g., illness). The basic premise of this tradition is that stressful life events activate the stress response and, consequently, play an important role in the etiology of disease. Based largely on the work of Holmes and Rahe (1967), a very large literature emerged to suggest that increased levels of environmental demands (e.g., major life events, daily hassles) predispose individuals to a wide variety of physical and psychological health problems (for reviews, see Aneshensel, 1992; McLean & Link, 1994). These findings were consistent with the early biological theories on stress (e.g., Selye, 1956) and suggest that life events necessitate some form of stress response.

Psychological Perspective of Stress: Assessment and Appraisal of Demands

The psychological perspective suggests that the experience of stress hinges on individuals’ subjective assessments, or appraisals, of their abilities to cope with demands. According to this tradition, stress occurs when demands, either external or internal, are appraised by an individual as taxing or exceeding his or her coping resources and, consequently, influencing his or her well-being (Lazarus, 1993; Lazarus & Folkman, 1984). Evident from this definition, the psychological perspective is compatible with both environmental and biological stress traditions: that is, the relation between antecedents (i.e., environmental perspective) and outcomes (i.e., biological perspective) is accounted for by individual appraisal (i.e., psychological perspective).

An Integration of Stress Perspectives

The aforementioned perspectives on stress (i.e., environmental, psychological, biological) highlight relevant aspects of the stress experience but, in isolation, do not fully describe the rich complexity of the stress experience. The collective insights from each perspective, however, suggest that the stress phenomenon unfolds as a process: (a) an individual encounters stressful demands (e.g., assignment deadlines) commonly referred to as stressors (i.e., the environmental perspective); (b) he or she evaluates these demands, a cognitive process called appraisal, to determine whether they tax or exceed his or her available resources to deal with the demands (i.e., the psychological perspective); and, subsequently, (c) the stress response (e.g., increased heart rate, muscular tension, etc.) is assumed to accompany events appraised as troublesome and this may influence the pathogenesis of disease (i.e., the biological perspective). There are more detailed and comprehensive renderings of the stress process (for a review, see Glanz & Schwartz, 2008), but the basic process outlined here (demands→appraisal→response) is a simple schematic to categorize key items within the stress universe, and to identify focal points for stress management.

What is Stress Management?

Given that stress is a multidimensional phenomenon with environmental (e.g., demands), psychological (e.g., appraisal), and biological (e.g., bodily responses) elements, stress management should target each of these levels for maximum effectiveness. In other words, to
manage stress effectively individuals need (a) to “reduce” their exposure to environmental demands, (b) to “rethink” their appraised stress, and (c) to “relax” or ameliorate their symptoms of the stress response (Blonna, 2012). These concepts of “reduce,” “rethink,” and “relax” are summarized by Blonna (2012) as different and useful lines of defense against stress. The limitations of this paper preclude a full discussion of intervention strategies (for reviews, see Olpin & Hesson, 2013; Seaward, 2004), but a variety of methods using Blonna’s (2012) conceptualization of stress management (i.e., reduce, rethink, relax) are outlined below.

Environmental Approaches to “Reduce” Stress

Given that excessive environmental demands are associated with maladaptive outcomes (e.g., disease and illness), people often need to reduce the amount of stressors in their lives. People sometimes become involved in too many activities (even enjoyable and desirable ones) that they reach a point of overload and no longer feel capable of coping with the multiple demands. As such, the concept of “reduce” suggests that people need to identify their optimal level of stimulation by cutting back on the overall volume of potential stressors (Blonna, 2012). Although there are many different ways to reduce the amount of demands people experience (for reviews, see Olpin & Hesson, 2013; Seaward, 2004), Blonna (2012) provides a number of simple suggestions such as downsampling (i.e., voluntarily cutting back on activities to reduce stress), time management (i.e., prioritizing activities to utilize time more efficiently), and building communication skills (i.e., to reduce conflicts within interpersonal relationships). The basic premise with “reduce” strategies is for people to take stock of their lives, to evaluate whether they have too much going on and, subsequently, to abolish (i.e., eliminate specific events) and avoid (i.e., minimize exposure to certain people, places, etc.) those stressors that present more harm than good to their lives. Of course, learning to “reduce” demands requires that people also “rethink” their priorities and values—a line of defense detailed in the next section.

Psychological Strategies to “Rethink” Stress

Arguably the most important line of defense against stress is for individuals to become aware of and, often times, change how they interpret and evaluate situations: that is, to “rethink” the way they view the world and specific events (Blonna, 2012). Researchers agree that in nearly all cases, events and circumstances do not cause people to feel stress: rather, it is individuals’ appraisal and evaluation of events that causes them to feel stress (Olpin & Hesson, 2013). As such, “rethink” strategies are designed to help individuals minimize cognitive (and subsequent physiological) arousal through techniques such as cognitive restructuring, rational emotive behavior therapy, value clarification, and acceptance training (for reviews, see Blonna, 2012; Seaward, 2004). These cognitive-based strategies work by helping people to examine their thoughts and illogical beliefs about life events and, subsequently, to replace irrational beliefs with more rational and realistic ones. The gist of this line of defense, then, is the need for people to remember to “rethink” their beliefs, attitudes, and values to prevent potential stressors from becoming actual stressors and leading to physiological stress responses.

Biological Strategies to “Relax” Stress

Despite our best efforts to “reduce” and “rethink” potential stressors, inevitably, many of us often experience the biological symptoms of stress (e.g., increased heart rate, blood pressure, muscular tension, etc.). The concept of “relax” is aligned with the biological perspective of stress and is focused on decreasing the neuromuscular arousal that accompanies the stress response. Relaxation is the opposite of the stress response and is characterized by decreased muscle tension, heart rate, and respiration. A great variety of relaxation techniques exist (for reviews, see Olpin & Hesson, 2013; Seaward, 2004) but common methods to combat the stress response
involve diaphragmatic breathing (i.e., deep breathing that focuses on filing the lungs from the bottom up), meditation (i.e., increased attention and awareness by focusing on one thing), visualization (i.e., mental creation of relaxing images), and progressive muscle relaxation (i.e., practice initiating and turning off muscle tension). Most forms of relaxation can be learned very quickly and, when practiced regularly, can allow people to combat the stress response and put their bodies in a relaxed state.

The aforementioned approaches to stress management (i.e., reduce, rethink, relax) are broad categories that can be used to combat the relevant aspects of the stress experience (i.e., environmental demands, psychological appraisal, biological response). Each level of intervention by itself (e.g., rethink) is a different and useful line of defense against stress, but combined with others (e.g., reduce and rethink) a synergistic effect is likely to occur. In day-to-day practice with stress-related disorders, researchers have found that the impact of one intervention by itself (e.g., relax) yields only a marginal treatment effect (Stoyva & Carlson, 1993). If, however, two or three intervention strategies are used in combination (e.g., reduce, rethink, and relax), there may occur a summated effect large enough to be quite significant. Overall, combinations of intervention strategies are likely to prove more effective than one technique by itself.

Summary and Conclusion

Stress is a pervasive and often detrimental part of human existence. There is no consensus on a definition for the term stress, but relevant aspects of the stress experience highlighted in this paper include external events such as daily hassles (i.e., the environmental perspective), subjective qualities of appraisal (i.e., the psychological perspective), and physiological responses such as increased heart rate and muscular tension (i.e., the biological perspective). Given that the phenomenon of stress can take on many forms, stress and life management must take varied forms too. This paper provided a parsimonious look at assorted methods to “reduce” (e.g., downscaling), “rethink” (e.g., cognitive restructuring), and “relax” (e.g., diaphragmatic breathing) stress that were aligned, respectively, with the environmental, psychological, and biological perspectives of stress. The synthesis of knowledge presented in this paper provides a conceptual basis for both the understanding and management of stress. The overall take home message is this: stress is life, and stress management necessitates that we “reduce” the volume of stressors in our lives, “rethink” the way we view life events, and “relax” our minds and bodies to offset the effects of life stress.

References


Memorization Techniques:
Using Mnemonics to Learn Fifth Grade Science Terms

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ABSTRACT

This article presents an analysis of data extracted from the dissertation Memorization Techniques: Using Mnemonics to Learn Fifth Grade Science Terms (Garcia, 2009). The research was prompted by the author’s interest in a series of studies by Aaron S. Richmond, et al. (2006). The Richmond studies focused on effect of the method of Loci, Pegword, and Keyword Method in the eighth-grade classroom. This study was quantitative using a quasi-experimental research design with a non-equivalent control group pretest, post-test, and a 4 X 4 factorial comparison, with random assignment of intact groups. The problem is that fifth-grade students are not successful in science achievement as measured by Texas state level accountability exam. The results determine whether mnemonic instruction can assist students in learning fifth-grade science terms more effectively than traditional-study methods of recall now in practice and remember them over a span of time.

Theoretical Framework

In 2007, the National Center for Education Statistics reported that 2005 national science achievement levels indicated that 32 % of fourth grade students scored below the Basic rank as noted by the National Assessment of Educational Progress (NAEP) standards. Only sixty-eight percent of fourth grade students were able to meet the NAEP Basic science level, which actually shows only partial mastery of prerequisite knowledge as prescribed by national science standards. The data also illustrated that only 29% of the students were able to meet or surpass the Proficient stage as set by NAEP science measures with 71% of the students not meeting the proficiency level.

If this was not alarming enough, the 2005 NAEP science performance at the state level demonstrated that the fourth grade students in Texas had an average scale score of 150. The NAEP science achievement levels indicated that 34% of the students were below Basic, 41% were at Basic, and only 23% were able to meet or exceed the Proficient level. These statistics show that there is a highly disproportionate achievement gap between those students who meet or exceed the Proficient level (23%) and those who do not meet (77%) the NAEP science standards.

In observing the 2008 state science standard results in Texas, the Texas Education Agency (TEA) reported that of 345,631 students in fifth grade who tested on the Texas Assessment of Knowledge and Skills (TAKS) required English version science test, only 82% met the passing performance standard. The report also showed students who took the Spanish version science test achieve a 37% passing standard. While the data demonstrates that state 5th grade science scores were lower compared to the other tested subjects, science scores were even lower in south Texas in general and in the Region One Education Service Center area in particular. The data indicated that of the 27,755 fifth graders who took the English version of the science TAKS, 81% met the passing standard while only 42% of the students who took the Spanish version met the passing standard.

A review of the demographic data of the Region One Education Service Center (RESC1) schools in South Texas showed that most of the students were Hispanic (Table 1). In fact, of the more than 371,893 total students, 359,818 (96.8%) were Hispanic, and of these students, 149,730 or 39% were of Limited English Proficiency (LEP). Of the LEP students, 105,121 or 27.4% participated in the Bilingual Program (Texas Education Agency, 2006-07). According to the RESC1 data, there were over 19,989 or 5.2% migrant students and 15,592 (4.1%) who were recent immigrants. Compared to the rest of the State, the RESC1 had the highest proportion of
bilingual students and the highest number of migrant students in the state of Texas (Region One Education Service Center, 2007-08).

This study focused on the use of memorization techniques or more specifically mnemonic methods as a means of increasing student knowledge in science at the fifth grade level. A mnemonic device is a memory and/or learning aid. Commonly used mnemonics are often verbal; it could be a very short poem or a special word used to help a person remember something, particularly lists. But the device may be visual, kinesthetic or auditory. Bruning, Schraw, Normby, & Ronning (2004) explain that mnemonics usually “involve pairing of to-be-learned information with well-learned information in order to make the new information more memorable” (p. 69).

Mnemonics depend on associations between easy-to-remember constructs which can be related back to the data that is to be remembered. Memorization techniques also include the use of rhymes, sayings, gestures, and imagery. This is based on the belief that the human mind can more easily remember spatial, personal, surprising, sexual or humorous or otherwise meaningful information than less meaningful information (Bruning et al., 2004).

In an effort to demonstrate improved student performance, the three memorization techniques or mnemonics that were addressed in this study included: a) the method of loci, b) pegword method, and c) the keyword method. The three memorization techniques were compared to the traditional-study method which was used as the control group.

**Statement of the Problem**

In general, elementary school students are not being successful in science achievement at the fifth grade level (National Center for Education Statistics, 2007). If student science performance is improved at the elementary level, especially at the fifth-grade level, it is likely that students will be successful when tested on the 8th and 10th grade Texas science TAKS tests in the future. This is especially important because in Texas, students are required to pass the Exit-Level TAKS subject tests which include science. If not successful, students will not receive a high school diploma.

Current data indicated poor student performance in science both on the 4th grade National Assessment of Educational Progress (NAEP) and the Texas TAKS 5th grade tests at the state level. In particular, data also demonstrated unacceptable student performance at the South Texas regional level. In view of this problem, the focal point for this study was the enhancement of science academic performance at the fifth grade level. Emphasis was placed on the learning of a memorization technique and using it initially to remember science vocabulary and then using the mnemonic to remember science vocabulary over a period of time.

Without the benefit of any known research similar to this study in this specific geographic area relative to the particular student population found in Dissertations & Theses (Table 2), the study examined two approaches to science learning. First, it examined the work of fifth-grade students and compared the method of loci, pegword method, and keyword method, to the traditional-study method in learning fifth-grade science vocabulary and concepts. Second, the study investigated whether fifth-grade students could learn science vocabulary acquired via a memorization technique and be able to retain the learning over a period of time.

**Purpose of the Study**

The purpose of this study was to determine whether mnemonic instruction could assist students in learning fifth-grade science terminology more effectively than traditional-study methods of recall currently in practice. The task was to examine if fifth-grade students were able to learn a mnemonic and then use it to understand science vocabulary; subsequently, to
determine if students were able to remember the science terms after a period of time. The study compared fifth-grade students’ use of memorization techniques such as method of loci, pegword, and keyword, to student’s use of traditional-study methods. The intent was to determine which method was most useful in acquiring and recalling science vocabulary.

Need for the Study
In 2001, the Elementary and Secondary Education Act of 1965 was reauthorized by the No Child Left Behind Act which became law in 2002. The Act was based on four main principles which included 1) accountability, 2) local control, 3) scientifically-based teaching methods, and 4) greater parental choice, (Littleton, 2005). The NCLB holds states accountable for closing the achievement gap for all students to ensure that they reach academic proficiency. The Act also provides greater flexibility in the use of its local, state, and federal funds in employing new teachers or improving teacher preparation and professional staff development. The NCLB relies on proven education methods grounded in scientific research in deciding which programs to support in improving student knowledge and success. Last, but not least, the NCLB gives parents options in selecting and transferring their children to better performing schools within their districts and requires that schools provide supplemental educational services when they fail to meet state standards (U. S. Department of Education, 2008).

Significance of the Study
Presently, for state accountability purposes, besides other core subjects, science is required to be tested at the fifth, eighth, tenth, and eleventh grades in the Texas Assessment of Knowledge and Skills (TAKS). This measurement standard is used to determine whether schools are meeting state education objectives not only in reading and math, but also in science starting at the fifth grade level. In addition, in order to graduate and receive a high school diploma, students must also pass English language arts, math, and social studies at the Exit Level TAKS (Texas Education Agency, 2007). The demand to pass science begins at the fifth-grade level.

METHODOLOGICAL DESIGN
This study was based on a quasi-experimental research design that utilized the nonequivalent control group design which would “still provide adequate control of sources of invalidity” (Gay & Airasian, 2003, p. 378). This type of design lends itself to random assignment of intact groups to treatment as opposed to random assignment of individuals to treatment. Campbell & Stanley (1963) surmised that “one of the most widespread experimental designs in educational research involves an experimental group and a control group both given a pretest and posttest, but in which the control group and experimental group do not have a pre-experimental sampling equivalence” (p. 47). The assumption is that the assignment of X to one group or the other is to be random and in the experimenter’s control. The four comparison groups included in this design consisted of the 1) method of loci, 2) pegword method, 3) keyword method, and 4) traditional-study method (control group).

Research Questions
To address the intent of the study, two research questions were posed as follows:

1. Is there a difference in recall achievement when a mnemonic such as method of loci, pegword method, or keyword method is used in learning fifth grade science vocabulary as compared to the traditional-study method?
2. If using a mnemonic in learning fifth-grade science vocabulary was effective on recall achievement, would this achievement be maintained over a span of time?

Sample
School District A was selected because it met the general demographics of the south Texas region. Also, since the target population for this district of fifth-grade science students tested was 861, the particular campus was chosen because it had 83 students or 10% of the total fifth-grade student population and would be a good representative sample. However, only 78 students volunteered for the study. Furthermore, this campus had similar demographics as all other campuses and had four classrooms that could randomly be assigned each of the three mnemonics and the traditional-study method.

The data was collected from students enrolled in four 5th self-contained classes who volunteered for the study. The sample was composed of ten to eleven year old students with similar student group demographics such as gender, ethnicity, and ages. The makeup of the sample group consisted of 77 (99.9%) Hispanics, 1 (.01%) Whites, 41 males and 37 females, 99.9 % Economically Disadvantaged, and 53 (68%) Limited English Proficient (LEP) students.

Since the four 5th grade classes were semi-departmentalized at this campus, the 78 students participated during the period of time they were studying science. Given that each classroom had about the same number of students, each classroom was randomly assigned to one of the three mnemonic conditions which consisted of method of loci, pegword method, and keyword method and the traditional-study condition (control group). This process ensured that all groups were about the same size and also confirmed consistency throughout.

**Instrumentation**

*Prior Knowledge Test.* In following a similar path to Richmond’s (2006) research study, this test was created and employed in a similar fashion and adapted for this study. To determine whether matching had been successful, it was essential to provide a pretest to the experimental and control groups. The science vocabulary plus definitions and the science vocabulary plus examples that were taught in the initial mnemonic training were combined in the pretest. The pretest, which was given on testing day 1, consisted of two parts and included ten science vocabulary words with ten matching definitions and ten matching examples.

*Science Vocabulary Plus Definition Test.* This test was created and employed in a similar fashion as was used in a research study by Richmond (2006) and adapted for this study. This test consisted of ten science vocabulary words dealing with physical matters and had associated definitions (e.g., periodic table - a chart that classifies elements by their properties). The ten vocabulary words and definitions were each randomly distributed in each of the divided columns.

*Science Vocabulary Plus Example Test.* This test was created and employed in a similar fashion as used in a research study by Richmond (2006) but adapted for this study. This test, which was administered on testing days 1, 2, and 3, consisted of ten science vocabulary words dealing with physical matters and had associated examples (e.g., periodic table - Mendeleev’s chart).

*Distractor Test.* The ability that facilitates people to encode, store and retrieve information is memory. Therefore, in order to control for short-term memory effects whereby students may be able to rehearse the latest information at the end of the study session prior to the testing time, a distractor test similar to one used in Richmond’s study was developed and administered on testing day 1 only. The name of the distractor test developed was School Word Search.

**Treatment**

The treatment process used in this research study was similar to the one used by Richmond (2006) in his study for eighth-grade students in science classes; however, this treatment was adapted for use with students in fifth-grade science classrooms. Each of the students in the four
treatment groups received a training information guide on the use of their respective memorization technique or traditional-study method. The three experimental groups were presented with information on the use of mnemonics for their corresponding condition while the control group received information on traditional-study methods. The science vocabulary words, definitions, and examples were taken from the Texas state adopted fifth grade science textbook by Cooney, DiSpezio, Foots, Matamoros, Nyquist, & Ostlund (2000). The science vocabulary words dealt mainly with physical matters and had associated definitions (e.g., periodic table - a chart that classifies elements by their properties) or examples (e.g., periodic table - Mendeleev’s chart). The listing for information used in this study is illustrated by Table 3.

Table 4 depicts the ten individual science vocabulary words that were given a mnemonic prompt characterized by a graphic image of loci, pegword, or keyword correspondingly. Besides the mnemonic prompt, the ten science vocabulary words were moreover assigned interactive sentences as seen in Table 5. As in Richmond’s (2006) study, but adapted for fifth-grade students, for every one of the three experimental conditions, mnemonic pictures were drawn “free-hand” in black ink with a white background and made to the same 6 X 4 inch size. All of the complete drawings used in the three experimental conditions (method of loci, pegword, and keyword) can be found in Appendix F, G, and H, in that order. As an example for each of the conditions, the mnemonic images were hand-drawn in black ink (see Figure 1, 2, and 3).

Data Analysis Procedures

A two-way factorial analysis of variance (4 X 4) was used to analyze the obtained data. The first factor was between groups or treatment conditions and the second factor was within subjects or trials, that is, repeated measures. The null hypotheses for the present study were tested with an F distribution at the .05 level of significance. The effect size included eta squared and Cohen’s d.

Exploratory data analysis (Tukey, 1974) was used side by side with the above confirmatory analysis.

Data Collection Procedures

Conditions. This study included the following four condition groups: 1) method of loci, 2) pegword, 3) keyword, and 4) traditional-study (control group). A booklet adapted and modified from the research study performed by Richmond (2006) was used for each of the treatments. His booklet for 8th grade science students was based on and adapted from a study done with undergraduate students by Carney, Levin, & Morrison (1988) for use in learning 30 painting/artist associations in art appreciation classes. The booklets for this study were comprised of five major components: 1) introduction, 2) method description, 3) response learning and guided practice study, 4) actual study, and 5) testing. The introduction section included explanatory information about the study. As an example, the students were informed that they would learn a memory technique; they would practice it, and then be tested on the science vocabulary they received.

In the method description component, the students in each of the treatment groups were given a short explanation and synopsis of their given strategy. The next section included a learning response or guided practice training segment. The students learned how to utilize their particular method and its application to real examples. After this section, the students were involved in the actual study portion in which they attempted to learn the science vocabulary given to them. The last segment was the testing part in which the students in fact were tested on the material given.

The difference in this study compared to Richmond’s (2006) was that class-wide instruction was used to present all the needed information in regards to the condition presented to students as opposed to his study in which students read the information on their own. However, the same
amount of time to read and gather the general impression of each section was given transversely to all treatments. For example, if students in the pegword treatment had two minutes to read the introduction, then all students in each of the other treatments receive the same benefit. Consequently, for each treatment group, students were given exposure to the following timed segments: 1) introduction - two minutes, 2) method description - five minutes, 3) response learning and guided practice study – eight minutes, 4) actual study – twenty minutes, and 5) testing – fifteen minutes (six minutes devoted to each matching test and three minutes to the distractor test). The total amount of time for the five segments was 50 minutes and was similar to the time used in Richmond’s (2006) study.

**Method of loci condition**

The process and presentation of instructional material for this condition was based on and adapted from the study depicted by Richmond (2006). His procedures were based on studies by Wang and Thomas (2000) on work with university introductory psychology classes and the investigation of three issues with respect to long-term serial recall of adults.

Initially, the students were given the booklet with the five components explained above. The introduction included what they would experience in learning their memorization technique and then how to apply the particular technique to the new science information being presented. Under the method description section, the students were given a concise explanation of the method of loci and how it was employed. They were also presented with two demonstrations (e.g., evaporation and condensation developed by Richmond, 2006) on how to create loci and link these locations with the science vocabulary being presented.

The response learning component included a three step process. In the initial step, students were requested to memorize ten loci from their classroom (e.g., table, desk, and computer). In the second step, the students practiced with three vocabulary words and corresponding definitions (e.g., heat of fusion, heat of vaporization, and Boyles Law used in Richmond, 2006). After this, it was requested that the learners provide the loci to the science vocabulary such as (e.g., heat of fusion melting a crayon on the computer). In the third step, students were asked to construct and put in writing their personal account of the loci and vocabulary word interconnection.

The actual study component consisted of giving students ten mnemonic drawings generated by the researcher. For each of the mnemonic drawings, the student found: 1) a science vocabulary word and definition, 2) science vocabulary word and example, 3) loci word, and 4) an interrelated sentence illustrating the science term and loci (Figure 1). The testing component for this treatment and as in all treatments consisted of a distractor test given after the mnemonic training and before the immediate test on Day 1 only. A science vocabulary plus definition matching test and a science vocabulary plus example matching test were given on Day 1 (immediate day), Day 2 (2-day delay), and Day 3 (10-day delay).

**Pegword condition.**

The booklet given to students in this condition group consisted of five sections that were based and adapted from the study by Richmond (2006). Richmond’s (2006) research was based on work done by Carney, Levin, & Morrison (1988) for use in learning 30 painting/artist associations in art appreciation classes. The adaptation came from the study booklets procedures found in Carney et al.’s (1988) work which consisted of three conditions: 1) control group, 2) pictorial mnemonic, and 3) verbal mnemonic.

A concise summary of the condition was presented in the introduction component of the booklet. The pegword method was explained in the method description booklet component by
Students were provided with two demonstrated examples on how to use the pegword method (e.g., evaporation and condensation used in Richmond, 2006). For each example, there was a science vocabulary word definition, a drawing of the pegword interrelating with the vocabulary word, and the depiction of the interaction between the pegword and vocabulary word in a sentence.

Students needed to finish two steps in the response learning component of the booklet. First, they were requested to memorize the ten pegwords with their particular numbers and drawings (e.g., one is bun with a drawing of a bun, Richmond, 2006). Second, they were requested to apply the memorized pegwords to three vocabulary words (e.g., heat of fusion, heat of vaporization, and Boyles Law as used in Richmond, 2006). Then students were asked to depict the interaction between the pegword and the vocabulary word.

The actual study component consisted of giving students ten mnemonic drawings generated by the researcher. In each of the mnemonic drawings, the student found: 1) a science vocabulary word and definition, 2) science vocabulary word and example, 3) the pegword, and 4) an interrelated sentence illustrating the science term and pegword (Figure 2). The testing component for this treatment and as in all treatments consisted of a distractor test given after the mnemonic training and before the immediate test on Day 1 only. Students were then requested to finish the testing component of the booklet, as in all treatments. A science vocabulary plus definition matching test and a science vocabulary plus example matching test were given on Day 1 (immediate day), Day 2 (2-day delay), and Day 3 (10-day delay).

**Keyword condition.**

The booklet given to students in this treatment group consisted of five sections that were based and adapted from a research study by Richmond (2006). Richmond (2006) developed and adapted keyword procedures based on research by Veit, Scruggs, & Mastropieri(1986) that included learning disabled students in 6th-8th grade.

A concise summary of the study was presented in the introduction component of the booklet. The keyword method was clarified in the method description booklet component by presenting students with its meaning and explanation on how to apply it. Two illustrated examples on how to generate keywords and how to create interactive mental images between the keyword and vocabulary word (e.g., evaporation and condensation found in Richmond, 2006) were given to students in this section.

The response learning consisted of giving students three science vocabulary words for practice (e.g., heat of fusion, heat of vaporization, and Boyles Law as created in Richmond, 2006). In addition, they were required to generate their own keywords for every example (e.g., Boyles Law = gargoyle). They were required to describe in their own words the interfacing between the keyword and the science vocabulary word.

The actual study component consisted of giving students ten mnemonic drawings generated by the researcher. For each of the mnemonic drawings, the student found: 1) a science vocabulary word and definition, 2) science vocabulary word and example, 3) the keyword, and 4) an interrelated sentence illustrating the science term and keyword (Figure 3). Students were then requested to finish the testing component of the booklet, as in all treatments.

**The Traditional-study condition.**

A booklet was also created for the traditional-study condition (control group) as in all other three mnemonic conditions. The booklet that was given to students consisted of five sections based and adapted from the study by Richmond (2006). Richmond’s (2006) study in this
condition was adapted on work by Hwang & Levin (2002) who conducted their research with a 2-experiment study of 118 7th grade students.

A short explanation of the study was given in the introduction section of the booklet. The method description entailed a concise summary of the traditional-study method and the varied study techniques used in elementary schools such as taking good notes and relating similar information to new information. Levin, Morrison, McGivern, Mastropieri, & Scruggs (1986) indicated to the students in their study “that the key to efficient learning is to maintain a positive attitude while applying whatever study method that has seemed to work well in the past (‘your own best method’)” (p. 493). The students were also provided with ideas on how to take notes, connect ideas by means of repetition of key words and phrases, picture description, and the process of summarization with new information. Two examples were given to students in displaying these methods (e.g., evaporation and condensation used in Richmond, 2006).

In the response learning, students were given a choice of studying with their own best method or use one of strategies presented to them in learning three vocabulary words (e.g., heat of fusion, heat of vaporization, and Boyles Law as formed in Richmond, 2006). Students were given an opportunity to see the list of science vocabulary words and examples in the actual study component. They were permitted to use note-taking, summarization, elaboration or incorporation of other tactics they normally used to help them learn best when studying. Students were then requested to finish the testing component of the booklet, as in all other conditions.

**Summary of Procedures**

**Testing: Day 1.**

The prior knowledge pretest was given at the beginning of the class period (10 minutes). The students were given mnemonic training for the next 15 minutes and then they were able to study the informational material for the following 20 minutes. This process was created and adapted based on previous research employed by Richmond (2006). He used the process based on work by Carney and Levin (2000b) and cited them as follows, “to control for short-term memory effects, following the mnemonic training or free study training, students will be given a distractor test or filler task for 3 minutes” (p. 64). After the distractor test, the students were given the first post-test of the science vocabulary plus definition and science vocabulary plus example tests over material originally studied that took six minutes each for a total of 12 minutes.

**Testing: Day 2.**

The testing procedures that were used by students on Day 2 were based and adapted from Richmond’s (2006) research. He developed and adapted the procedures from Thomas and Wang’s (1996) study on mnemonic retention “whereby 2 days after testing day 1, students were given a brief reminder of how their respective mnemonic device was used (3 minutes)” (p. 64). Subsequent to the brief review, the students were given the second post-test of the science vocabulary plus definition and science vocabulary plus example tests of the material studied originally (12 minutes).

**Testing: Day 3.**

The format and procedures for Day 3 testing were established and adapted on the study followed by Richmond (2006). His course of action was developed and adapted on a study by Mastropieri et al. (1997) which indicated that two weeks after testing day 1, students would be given a short review of the mnemonic they originally studied for 3 minutes. After this review, they were given their third post-test on the science vocabulary plus definition and science vocabulary example tests which took 12 minutes. The 2-week delay could not be worked out before the end of the school year at this particular school district. Nevertheless, a 10-day delay
was created and adopted so students could complete the final post-test. Once they completed the post-tests, they were given the Student Demographic and Memory Technique Attitude Questionnaire (see Appendix E) which took 5 minutes.

**STATISTICAL FINDINGS**

**Prior Knowledge Pretest**

Two separate one-way analysis of variance (ANOVAs) were used to identify possible differences in the amount of prior knowledge (baseline) data among students in each of the four conditions. There was no difference among the four treatment conditions on both the *Science Vocabulary Plus Definition Pretest*, \( F(3, 74) = 0.57, \ p > .05 \) and *Science Vocabulary Plus Example Pretest*, \( F(3, 74) = 2.28, \ p > .05 \) which indicated that the amount of familiarity with the particular science vocabulary was about the same for all students. Figure 4 presents the mean score comparisons for the four conditions in prior knowledge on the science vocabulary plus definition test and the science vocabulary plus example test.

**Research Question One**

**Science Vocabulary Plus Definition Test.**

A two-way factorial analysis of variance (4 X 4) with one between subjects factor and one within or repeated measures factor was used to analyze obtained results. Repeated measures were used on the science vocabulary plus definition test to determine if there were any differences among trials. The interaction effect was obtained for between groups and trials. The data in Table 6 indicates that the third null hypothesis predicting no difference among cell means for treatment groups and trials was not rejected \( F(3,74) = 0.79, \ p > .05 \). Thus, there was no interaction/cell effect between mean treatment groups and trials.

**Science Vocabulary Plus Example Test.**

A two-way factorial analysis of variance (4 X 4) with one between subjects factor and one within or repeated measures factor was used to analyze obtained results. Repeated measures were used on the science vocabulary plus example test to determine if there were any differences among trials. The interaction effect was obtained for between groups and trials. The data in Table 7 indicates that the third null hypothesis predicting no difference among cell means for treatment groups and trials was not rejected \( F(3, 74) = 0.59, \ p > .05 \). Thus, there was no interaction/cell effect between mean treatment groups and trials.

**Research Question Two**

Data analysis procedures were applied to examine if using a mnemonic or memorization technique in learning fifth-grade science vocabulary was effective on recall achievement; would this achievement be maintained over a span of time as compared to the traditional-study method. The following explanations address the science vocabulary plus definition test and the science vocabulary example test trials results. The test trials included the trial 1 or Baseline (pretest), trial 2 (immediate day test), trial 3 (2-day delay test), and trial 4 (10-day delay test).

**Science Vocabulary Plus Definition Test Trials Results.**

The data indicated that there was an effect for the four trials (Table 8). This signified that there were differences in the mean number of science vocabulary definitions recognized over the four testing days. The second null hypothesis which predicted no difference among the four trials, was rejected \( F(3, 222) = 16.51, \ p < .05 \). Thus, there were differences in the mean number of science vocabulary definitions recognized over the four testing days or for trials 1, 2, 3, and 4.

Post hoc analyses were performed to determine which trials recognized the most science vocabulary definitions. A Holm’s Sequential Bonferroni method was used to control for Type I
Errors on all pairwise comparisons. The Holm's Sequential Bonferroni adjustment for multiple comparisons showed that there was a significant difference ($p < .05$) among trial 1 (Baseline) and trial 2 (immediate day); trial 1 (Baseline) and trial 3 (2-day delay); and trial 1 (Baseline) and trial 4 (10-day delay). The data also showed that there was a significant difference ($p < .05$) among trial 2 (immediate day) and trial 1 (Baseline) and trial 2 (immediate day) and trial 3 (2-day delay). There was also a significant difference ($p < .05$) among trial 3 (2-day delay) and trial 1 (Baseline) and trial 3 (2-day delay) and trial 2 (immediate day). Lastly, there was also a significant difference ($p < .05$) between trial 4 (10-day delay) and trial 1 (Baseline).

**Science Vocabulary Plus Example Test Trials Results.**

Additionally, the data indicated that for the four trials (Table 9) there was an effect, which signified that there were differences in the mean number of science vocabulary examples recognized over the four testing days. The second null hypothesis predicting no difference among the four trials was rejected ($F(3, 222) = 56.61, p < .05$). Thus, there are differences in the mean number of science vocabulary examples recognized over the four testing days or for trials 1, 2, 3, and 4.

Post hoc analyses were performed to determine which trials recognized the most science vocabulary examples (Figure 5). A Holm’s Sequential Bonferroni method was used to control for Type I Errors on all pairwise comparisons. The Holm’s Sequential Bonferroni adjustment for multiple comparisons showed that there was a difference ($p < .05$) among trial 1 (Baseline) and trial 2 (immediate day); trial 1 (Baseline) and trial 3 (2-day delay); and trial 1 (Baseline) and trial 4 (10-day delay). The data also showed that there was a difference ($p < .05$) among trial 2 (immediate day) and trial 1 (Baseline). There was also a significant difference ($p < .05$) among trial 3 (2-day delay) and trial 1 (Baseline). Lastly, there was also a significant difference ($p < .05$) between trial 4 (10-day delay) and trial 1 (Baseline).

**Summary of Statistical Results**

Data analysis results demonstrated that there were no difference in the amount of prior knowledge among students in each of the four conditions for the science vocabulary plus definition test and the science vocabulary plus example test. This was important to establish because if the students’ learning curve increased on posttest measures, the augmentation was due to the memorization technique, rather than to prior knowledge information.

Regarding **Research Question One**, data analysis results determined that there were no significant differences in recall achievement among the student groups who used one of the conditions to study fifth-grade science vocabulary definitions, including the traditional-study group. The data analysis results also established that there were no significant differences in recall achievement among the student groups who used one of the conditions to study fifth-grade science vocabulary examples, including the traditional-study group. The findings proposed that all students learned very well in all of the conditions.

In regards to **Research Question Two**, the data analysis indicated that for the four trials, there was an effect, which signified that there was a difference in the mean number of science vocabulary definitions recognized over the four testing days. Post hoc analyses were performed to determine which trials recognized the most science vocabulary definitions. A Holm’s Sequential Bonferroni method was used to control for Type I Errors on all pairwise comparisons. The Holm’s Sequential Bonferroni adjustment for multiple comparisons showed that there was a significant difference ($p < .05$) among the four trials.

Moreover, in reference to Research Question Two, the data also confirmed that for the four trials there was an effect, which signified that there was a difference, in the mean number of
science vocabulary examples recognized over the four testing days. Post hoc analyses were performed to determine which trials recognized the most science vocabulary examples. A Holm’s Sequential Bonferroni method was used to control for Type I Errors on all pairwise comparisons. The Holm’s Sequential Bonferroni adjustment for multiple comparisons showed that there was a significant difference ($p < .05$) among the four trials.

**CONCLUSIONS AND RECOMMENDATIONS**

This study determined whether fifth-grade students were able to learn a memorization technique, apply it in learning science vocabulary and then conclude if its effectiveness maintained this knowledge over span of time. The results of the study indicate that all memorization techniques and the traditional-study method were equally effective in studying science vocabulary. This study also shows that class-wide instruction on the study of mnemonics may be a useful tool not only in the learning of memorization techniques, but also in the long-term memory of the learned material. If elementary school teachers are trained appropriately in the teaching of memorization techniques on a class-wide basis, there may be a significant improvement in the learning of science information.

**Prior Knowledge Pretest Conclusions.** The outcome of the data analysis showed that before teaching the students the use of their particular mnemonic or traditional study method, the amount of understanding about the science vocabulary plus definitions and science vocabulary plus examples by all students in all of the conditions was found to be the same. Because of these conclusions, the indication was that when the students’ achievement increased on the posttest assessments, the improvement was due to the memorization technique or traditional study method instead of the prior knowledge information.

**Research Question One**

**Conclusions of the Science Vocabulary Plus Definition Test.** The data demonstrates that there were no differences among any of the four conditions used in recognizing more science vocabulary plus definitions. All mnemonic methods plus the traditional-study method proved to be equally effective. While there was no difference in the mean recognition of science definitions among all groups, the findings suggest an inclination that students can learn a memorization technique and use it very successfully if given more time to learn it and to use it consistently.

**Conclusions of the Science Vocabulary Plus Example Test.** As in the science vocabulary plus definition test, there were no differences among any of the four conditions used in recognizing more science vocabulary plus examples. All mnemonic methods plus the traditional study method proved to be equally effective. While there was no difference in the mean recognition of science examples among all groups, the results suggest an inclination that students can learn a mnemonic and use it very successfully if given more time to learn it and to use it consistently. The data also showed that in this test, the students in each of the groups initially had lower mean scores when compared to the mean scores of the science vocabulary definition test mean scores. The researcher concluded that this was due to the students’ limited exposure to vocabulary examples as opposed to vocabulary definitions.

**Research Question Two**

**Conclusions of the Science Vocabulary Plus Definition Test.** For all four trials, there were differences in the mean number of science vocabulary definitions recognized over the four testing days. The trial differences were found among the prior knowledge pretest and the immediate day test; the prior knowledge pretest and the 2-day delay test; the prior knowledge pretest and the 10-day delay test. The results also showed that there was a difference among the immediate day test and prior knowledge pretest and the immediate day test and the 2-day delay
test. There was also a difference among the 2-day delay test and the prior knowledge pretest and the 2-day delay test and the immediate day test. Lastly, there was also a difference between the 10-day delay test and prior knowledge pretest.

**Conclusions of the Science Vocabulary Plus Example Test.** For all four trials, there were differences in the mean number of science vocabulary definitions recognized over the four testing days. The trial differences were found among the prior knowledge pretest and the immediate day test; the prior knowledge pretest and the 2-day delay test; the prior knowledge pretest and the 10-day delay test. The results also showed that there was a difference among the immediate day test and prior knowledge pretest and a difference among the 2-day delay test and the prior knowledge pretest. Lastly, there was also a difference between the 10-day delay test and prior knowledge pretest.

**References**


**Author Note**

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<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographic Profile: Region One Education Service Center (2007-08)</th>
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<tr>
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</tr>
<tr>
<td>Migrant</td>
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<table>
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<tr>
<th>Table 2</th>
<th>Doctoral dissertations on mnemonic methods in 5th grade science (1960-2008)</th>
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<tr>
<td>Year</td>
<td>Number</td>
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<td>1960-1970</td>
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<td>1970-1980</td>
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<td>1980-1990</td>
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<td>1990-2000</td>
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<td>2000-2008</td>
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<td>Total</td>
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</tr>
<tr>
<td>Science Vocabulary and Definition</td>
<td>Example</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Matter</strong> is everything that takes up space and has mass.</td>
<td>A soccer ball</td>
</tr>
<tr>
<td><strong>Mass</strong> refers to the amount of matter in an object.</td>
<td>One gram paper clip</td>
</tr>
<tr>
<td><strong>Periodic Table</strong> is a chart that classifies elements by their properties.</td>
<td>Mendeleev’s Chart</td>
</tr>
<tr>
<td><strong>Molecule</strong> has two or more atoms joined together; the smallest unit of many substances.</td>
<td>Water</td>
</tr>
<tr>
<td><strong>Physical state</strong> refers to the state of matter (solid, liquid, or gas).</td>
<td>Ice as solid form of water</td>
</tr>
<tr>
<td><strong>Mixture</strong> has two or more substances that are mixed together, but can be separated out because their atoms are not combined.</td>
<td>Fruit salad</td>
</tr>
<tr>
<td><strong>Solution</strong> is a mixture in which substances break up into their most basic particles, too small to be seen, and spread evenly through another substance.</td>
<td>Lemonade</td>
</tr>
<tr>
<td><strong>Physical property</strong> is a way of describing an object using traits that can be observed or measured without changing the substance into something else.</td>
<td>An orange</td>
</tr>
<tr>
<td><strong>Physical change</strong> refers to a change in one or more physical properties.</td>
<td>Melting ice</td>
</tr>
<tr>
<td><strong>Chemical change</strong> refers to a change that produces new substances with new properties.</td>
<td>Batter baked into a cake</td>
</tr>
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*Note.* The science vocabulary information is from Cooney, DiSpezio, Foots, Matamoros, Nyquist, & Ostlund (2000).
Table 4
Science vocabulary and mnemonic prompts.

<table>
<thead>
<tr>
<th>Science Vocabulary</th>
<th>Loci</th>
<th>Pegword</th>
<th>Keyword</th>
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<td>Table</td>
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<td>Ladder</td>
</tr>
<tr>
<td>Mass</td>
<td>AV Cart</td>
<td>2-Shoe</td>
<td>Bass</td>
</tr>
<tr>
<td>Periodic Table</td>
<td>Projection Screen</td>
<td>7-Heaven</td>
<td>Picnic</td>
</tr>
<tr>
<td>Molecule</td>
<td>Cubbies</td>
<td>4-Door</td>
<td>Mr. Mole-frijoles</td>
</tr>
<tr>
<td>Physical State</td>
<td>Chair</td>
<td>6-Sticks</td>
<td>Captain Condition</td>
</tr>
<tr>
<td>Mixture</td>
<td>File Cabinet</td>
<td>1-Bun</td>
<td>Spatula</td>
</tr>
<tr>
<td>Solution</td>
<td>Trash Can</td>
<td>5-Hive</td>
<td>Light Bulb</td>
</tr>
<tr>
<td>Physical Property</td>
<td>Desk</td>
<td>3-Tree</td>
<td>Mr. Elastic</td>
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<tr>
<td>Physical Change</td>
<td>TV</td>
<td>10-Hen</td>
<td>Peacock</td>
</tr>
<tr>
<td>Chemical Change</td>
<td>Door</td>
<td>8-Gate</td>
<td>Ms. New</td>
</tr>
<tr>
<td>Intended Vocabulary</td>
<td>Interactive Sentence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------</td>
<td></td>
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</tr>
</tbody>
</table>
| Matter              | Loci: A soccer ball on the table.  
  Pegword: Soccer balls growing on a vine. 
  Keyword: Soccer ball bouncing down a ladder. |
| Mass                | Loci: A giant paper clip on the AV cart.  
  Pegword: A ballet shoe with giant paper clip. 
  Keyword: A bass with paper clip on its nose. |
| Periodic Table      | Loci: Mendeleev’s chart shown on projection screen.  
  Pegword: An angel with Mendeleev’s chart in heaven. 
  Keyword: Having a picnic on Mendeleev’s chart. |
| Molecule            | Loci: Water coming out of the cubbies.  
  Pegword: Water cascading down on the door. 
  Keyword: Mr. Mole-frijoles, the clown, with water gun. |
| Physical State      | Loci: Solid ice cubes on a chair.  
  Pegword: Popsicles with wooden sticks. 
  Keyword: Captain Condition breaking giant block of ice. |
| Mixture             | Loci: Fruit salad bowl on top of the file cabinet.  
  Pegword: Fruit salad inside a bun. 
  Keyword: Spatula in a fruit salad bowl. |
| Solution            | Loci: A trash can full of lemonade.  
  Pegword: A hive on a lemonade pitcher. 
  Keyword: A light bulb floating in a lemonade pitcher. |
| Physical Property   | Loci: An orange on top of the desk.  
  Pegword: An orange tree full of oranges. 
  Keyword: Mr. Elastic wrapped around an orange. |
| Physical Change     | Loci: Melting ice dripping over the TV.  
  Pegword: A hen stepping on melting ice. 
  Keyword: A peacock sitting on block of melting ice. |
| Chemical Change     | Loci: Pieces of cake with candles falling from top of door.  
  Pegword: Different types of cakes attached to a gate. 
  Keyword: Ms. New with a cake for a hat. |
Table 6
Summary table for science vocabulary plus definition test results.

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<tr>
<th>Source of Variation</th>
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<th>MS</th>
<th>F</th>
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<tr>
<td>Bet Subjects</td>
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<td></td>
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<tr>
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<td>47.46</td>
<td>3</td>
<td>15.82</td>
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<tr>
<td>error b</td>
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<td>74</td>
<td>19.96</td>
<td></td>
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<td>3.36</td>
<td>1.14</td>
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<td>“error” w</td>
<td>653.85</td>
<td>222</td>
<td>2.95</td>
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<tr>
<td>Total</td>
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<td>311</td>
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* p > .05

Table 7
Summary table for the science vocabulary plus example test results.

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<td>74</td>
<td>12.81</td>
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<td>97.25</td>
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<td>3.27</td>
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<td>733.14</td>
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*p > .05
Table 8  
**Summary table for science vocabulary plus definition test trials results.**

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<td>9</td>
<td>3.36</td>
<td>1.14</td>
</tr>
<tr>
<td>“error” w</td>
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<td>Total</td>
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</table>

*p < .05

Table 9  
**Summary table for the science vocabulary plus example test trials results.**

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<td>Bet Groups</td>
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<tr>
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<tr>
<td>Total</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Molecule has two or more atoms joined together; the smallest unit of many substances.  
Example of Molecule: Every water molecule has two hydrogen atoms and one oxygen atom (H₂O).  
Loci = cubbies  
A Cue to Remember this Science Word: Picture water coming out of the cubbies.

Molecule has two or more atoms joined together; the smallest unit of many substances.  
Example of Molecule: Every water molecule has two hydrogen atoms and one oxygen atom (H₂O).  
Pegword = 4-door  
A Cue to Remember this Science Word: Picture water cascading down on the door.
Molecule has two or more atoms joined together; the smallest unit of many substances. 
Example of Molecule: Every water molecule has two hydrogen atoms and one oxygen atom (H₂O).

Keyword = Mr. Mole-frijoles
A Cue to Remember this Science Word: Picture Mr. Mole-frijoles, the clown, with a water gun.

Figure 4. Prior knowledge means recognition pretest results.
Figure 5. Definition Test Results for Trials.

![Definition Test Results - Trials](image)

Figure 6. Example Test Results for Trials.

![Example Test Results - Trials](image)
Effective Citizens for the Future:  
Social Studies Needs More Time in Schools

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Effective Citizens for the Future: Social Studies Needs More Time in Schools

An obvious question for elementary education social studies teacher educators would be *how is social studies surviving in schools in the age of No Child Left Behind (NCLB)*. It seems unfortunate that student test scores in the areas of literacy and math on Adequate Yearly Progress Reports determine whether teachers are successful meeting the required basic educational criteria. Literacy and math are important but so are the other areas of the required school curriculum. In fact, not too long ago, teachers were required to teach all subjects for a certain amount of instructional time each week and all subjects were deemed as necessary for a good education.

Risinger (2009) accurately summarizes what has happened to social studies since the implementation of NCLB with the following four points: NCLB does not look at social studies or civic education; most states do not require any statewide assessments for social studies; the instructional hours at the K-6th grade level has declined; and social studies is considered less relevant than English/language arts, mathematics, and science. This current practice and way of thinking does not provide students with a well-rounded education or a complete view of the world in which they live. Duncan (2011) also agrees that reading and math are essential subjects; but the focus needs to include other important disciplines, including social studies. Duncan was also bold and intelligent enough to write that marginalizing social studies for reading and writing is not only misguided but also educational neglect.

For teachers who still include lessons in social studies and science on a consistent basis; it may be completed on a surface level of learning with no depth to any one topic. The method of instruction for this format usually involves reading the basal text, completing study guides, finishing with one traditional paper and pencil test for all students. This format leaves no time for creativity, inquiry, questioning, or problem-solving. By using a repetitive read and test method, how can teachers expect students to be independent, innovative thinkers of the future, or even excited to read the next chapter in the textbook? Teachers should be creating an environment in their classrooms to foster creativity, decision-making, problem-solving, and critical thinking.

Involving the students in these types of experiences makes the difference between memorizing and recalling facts for a test to a deeper understanding by helping students to problem-solve, ask questions, and use critical thinking skills to get answers. According to Ormrod (2012) critical thinking involves “evaluating the accuracy, credibility, and worth of information and lines of reasoning. Critical thinking is reflective, logical, evidenced-based, and has a purposeful quality to it—that is, the learner thinks critically in order to achieve a particular goal” (p. 421).

The Purpose of the Study

Social studies teacher educators should be concerned about the long-term effects of sacrificing civics, economics, and history instructional time in schools for more literacy and math time. The purpose of this study was to ascertain our teacher candidates’ knowledge of social studies, specifically civic education, after the completion of high school and three years at the university level.

Methodology

For five years, senior-level teacher candidates, majoring in Early Childhood and Elementary Education, were given a social studies survey during their Social Studies in Elementary Schools instructional methods course. This course instructs the teacher candidates on teaching methods for social studies in elementary schools; content is included but not the primary focus. The purpose of the survey was to determine students’ content knowledge on a social studies topic,
specifically civic education. The survey consisted of thirteen open-ended questions which have been completed by two hundred students over a five year period. The researchers analyzed the surveys and reported the nine most commonly reported answers to each question.

**Social Studies Survey:**
Questions are numbered; Student answers are bulleted and italicized

1. What are the rights and responsibilities of citizens?
   - Freedom of Speech, Bare Arms
   - Life, love, liberty, and the pursuit of happiness
   - To respect and honor others
   - Help the community
   - Obey laws and recycling
   - To do the right thing, be involved and be educated citizens
   - Bill of Rights- Basically do what you want in respect of others
   - Freedom of speech, from the press, religion, own property, vote
   - To be heard and to follow the laws created for our safety

2. What are your rights and responsibilities at home?
   - To respect and honor your family
   - To keep people safe
   - To keep things in order
   - To respect and to love
   - Shovel your sidewalk and keep the noise level down because it is the law
   - Do your part
   - Do the household chores
   - Your rights are determined by your behavior
   - To be kind to my neighbors and to maintain the outside appearance of my home

3. What are your rights and responsibilities at school?
   - To respect and honor your teachers and peers
   - To do your homework
   - To learn, socialize, and to have fun while treating others with respect
   - To follow the rules, to learn, and to be responsible
   - Respect others
   - Show up, do homework, participate and contribute in class
   - Do your best, don’t be afraid to state opinions
   - The right to an education
   - To be safe and treat equal

4. What are your rights and responsibilities as members of a community?
   - To respect and honor others
   - To vote
   - Stay active and follow laws and expectations
   - Keep the community clean
   - Pay State taxes and keep the community clean, no littering
   - Contribute to society, recycle and volunteer
   - Help others, follow rules, respect other, treat property as your own
   - To be safe and be protected
5. Why do we have or need laws?
   - To keep laws
   - To ensure safety and keep things common to follow
   - To keep order
   - To guide in appropriate behaviors and to keep justice and fairness alive
   - To keep us safe and keep our society functioning as a cohesive unit
   - People are created equal and laws are there to keep us equal
   - To keep us from having complete chaos
   - If we didn’t have laws people could do whatever they wanted without fear of consequences
   - To keep peace even though people complain about them, we need them

6. What are the 3 branches of the national government? Who are the officials from each branch and what are the functions of each branch?
   - Judiciary, Supreme Court, Legislative, President
   - Legislative- Make laws, Judicial- Enforce Laws, Executive- Don’t know
   - House Republicans, Congress Democrats
   - Democrat, Republican, Third Party
   - Executive-President
   - Legislative-Congress-Make Laws
   - Judicial-Judges-Enforce Laws
   - Senate and Congress
   - Judicial- Senate, Executive- President

7. How do current events affect political decisions?
   - Affect it greatly, what areas we need to focus on
   - Government officials have to make decisions about events that affect our country, sometimes it is making laws, and sometimes it is going to war
   - Tons, a lot of people want change (End Wars)
   - How they react to present issues, and knowledge of the current world
   - Find out what is going wrong in our country and fix it
   - Current events change the world as they happen, so obviously political decisions must change to reflect those decisions
   - The events affect how our political systems decide what to do in regards to the economy, justice systems, etc.
   - Based on the events political views may change. Democrats and Republican will handle the events in different manners which may change political decisions
   - Many political decisions are made because of current events and there are many factors that go into those decisions

8. What is the purpose of the Constitution and its Amendments?
   - To keep the government and citizens on track and safe
   - For people to abide by as it outlines the rights and responsibilities to US citizens
   - It states the rights and responsibilities of the people of the United States
   - To make common laws and to keep order, help citizens, and keep and uphold the rights of the people
To help guide our country in the right direction so every citizen is given an equal opportunity
To keep order and to state people beliefs about the United States
To give its citizens rights and protection under the law
To keep citizens aware of their rights as they live in the US of A
The Constitution is the document we founded our country on that describes how we are to live in a Democratic society. The Amendments keep the constitution current.

9. What is the Bill of Rights and how do these relate to the Amendments? How many of these can you name?

- First 10 Amendments Bear false witness, freedom of speech, bear false arms, speedy trial
- Bill of Rights is part of the Amendments
- Speedy trial, Separate of Church and State
- None but if I saw or heard I’d remember
- It also states our rights as US citizens and I could probably name ten.
- No idea- None : (  
- 13, Free slaves, End Prohibition, Bear Arms, Free Speech, Plead the Fifth, Search and Seizure, Women’s Vote, Blacks’ freedom to vote, Power to the States, Name on Ballot, Elected for 2 terms
- Ten
- The Bill of Rights is the basic set of freedoms we have as Americans: Right to free speech, right to bear arms, right to vote, right to practice religion

10. What developments led up to the Revolutionary War?

- I don’t know
- Colonies didn’t want to be taxed for things in England
- People leaving Europe and wanting to have their own country here
- Independence from Britain, British rule, and King overtaking
- French Revolution and Stamp Act
- US free from France
- Boston Tea Party, Rebels threw tea into the ocean
- Taxing of the Colonists without representation
- Tax on goods from England, Freedom of Religion

11. Do you believe that there is an injustice in the American system, with particular attention to race, gender, and social injustice? Why or Why not?

- Yes, social class and race, still too much racism
- Yes, because there are no white only scholarships
- Yes, most laws make it so the down stay down- It doesn’t allow for much change in our bias system
- Yes, we are not all treated equally as much as we would like to say we are, but we aren’t
- Yes, I believe America bends to all who claim they are being treated unfairly. Certain Americans play this card knowing they will get what they want.
- Yes, minorities (race, gender, sexual orientation) still do not have equal rights and are not treated fairly as white males.
• Yes, but I believe it is a work in progress and nothing will make everyone happy
• Yes, people are always judging even within the system
• Yes, for people with disabilities, race, gender and social justice

12. Name as many American historical heroes as you can and explain what they are known for in history.

• George Washington- 1st President and wood teeth, Abe Lincoln- 16th President and Assassinated
• MLK Jr. Free rights, JFK- Assassinated
• Teddy Roosevelt: Expand the West, Lincoln: Abolish Slavery
• Betsy Ross- Black women on bus
• I feel dumb :(
• Harriet Tubman- Underground Railroad, Paul Revere- Notifying others about the British coming in the Revolutionary War, Custard’s Last Stance
• Jefferson- Wrote the Declaration of Independence, Robert E. Lee-General, Columbus found America
• Adams and Jefferson- Creating and signing the Declaration of Independence
• Custer- General was killed in battle, Sitting Bull- Indian Chief, Crazy Horse- Indian Warrior, Betsy Ross- Sewed the flag
• I can name to many to write, I love history

13. Who is the President of the United States? Who is the Vice President of the United States?

• Every student knew the President, but received a variety of responses for the Vice President of the United States.

Preliminary Implications

There is clear evidence that the reduced time for social studies instruction in schools has impacted teacher candidates’ knowledge on the subject in a negative manner. Specifically, the data indicates a decrease over time in the grasp of the subject. One significant theme that has emerged is an increase in the number of questions left blank on the surveys and more questions are answered with brevity. There is also an increase in the number of students who make comments about their lack of confidence in social studies subject matter. In the field of social studies, it is imperative that changes need to occur that stress the importance of returning social studies to equal prominence in the curriculum. The National Assessment of Educational Progress (NAEP) on Civics (2010) also shows that students are not well versed in the knowledge of our political systems. The report also identifies one of the main reasons for the low test scores to be from a lack of instructional time for social studies. Another item from the report identifies math and reading as receiving ten times more instructional time than social studies.

Conclusion

Teacher educators need to reinforce to their teacher candidates the importance on the teaching social studies in schools but they also need to help them to develop effective strategies for teaching social studies instruction. An obvious method would be to start integrating social studies with the other subjects. With the lack of understanding on specific social studies content knowledge, will the younger generations of the future be able to make informed decisions for the world? A constant mission of school’s today should still be to prepare competent and responsible citizens who are prepared to face the challenges of an unknown future. They need to be able to solve the unimaginable problems of tomorrow. No one has the answers to what the future holds, but we need to teach our students how to problem solve, think critically; and to ask the right...
questions to get the best answers. To end the cycle of teacher candidates arriving at universities with inadequate social studies knowledge there will need to be a strong commitment in schools to return social studies to the forefront with other subject areas.

References
Aging Stereotypes: An Analysis of Pre and Post Student and Elder Comments Regarding Elders

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Introduction

The country is experiencing an increase in the number of senior citizens or elders. According to the U.S. Census (2005-2009), there are over 52 million citizens 60 years of age and older. Projections for growth amongst elders include centenarians (persons age 100 and older) and an increase in supercentenarians (persons age 110 and older) with women largely represented in both of these groups (Morgan & Kunkel, 2011). The purpose of this study is to enhance both student and instructor learning and reflection in a class focused on older adults or elders. Students enrolled in a Family Studies course on aging were asked to identify stereotypes regarding elders at two different time intervals, the pre-tests and post-tests, in the class during Spring semester 2011. In between the pre-test and post-tests, students were required to conduct and record the life stories of an elder in their family or an elder from the local community. Similar projects have occurred across the country. Research shows that projects pairing younger and older generations offer multiple and bidirectional benefits. These intergenerational interactions provide each generation the opportunity to improve communication skills, address stereotypes, examine historical events, and to improve relations.

Literature Review

The student researchers were asked to complete life stories of the elders by allowing a free-form narrative to develop prompted by questions from the student. The story of the elder’s life was guided by the elder’s memory and willingness to share certain aspects of their life. The students were encouraged to listen for important events as defined by the elder. Life stories differ from other forms of documenting biographical information. Life reviews are structured around one or more life themes (Haber, 2006). Life reviews are done for educational and therapeutic purposes and can be used for evaluative processes to examine how memories contribute to life’s meaning. Reminiscence is the recall of memories through a passive and spontaneous process (Haber, 2006).

Little research exists to connect student and instructor reflection as part of the scholarship of learning and the scholarship of teaching. The scholarship of teaching must include both student and instructor in the reflection of learning (Trigwell & Shale, 2004). Both the student and instructor must be engaged in the scholarship process. The elder life stories project included both the student and the instructor in the process of improving scholarship for both. Researchers have identified three higher order components central to the scholarship of teaching that being scholarship is public property, it is open to critique and evaluation, and lastly it is in a form that others can build on (Trigwell & Shale, 2004). The elder life stories projects were public through student presentations and instructor publications. Both presentations and publications were open to critique and evaluation. And, the elder life stories project is part of continued research. The students in the aging course were asked to provide written comments about the stereotypes they possess or were aware of regarding elders. This study examined the changes in student comments over the semester at two different times, week one and week fourteen in the class. In between providing pre-test and post-test written stereotype comments, the students completed course work, site visits, and multiple elder interviews.

Research has shown it is difficult to assess student attitude changes in general education courses (Anderson et al., 2007). Thus, this preliminary study does not attempt to draw conclusions about student attitude shifts. This study is used as a baseline for future examinations of attitude changes or shifts.

Research has shown the elder life stories benefit both the elders interviewed and those that interview them. The elder life stories enable interviewers to examine and possibly dispel aging stereotypes and the interview process enables elders to feel “personalized” or valued (Koch, Turner,
Smith, & Hutnik, 2010).

Process

For this preliminary study, the instructor reviewed only the written comments from students enrolled in an aging course for one semester. Students provided two sets of written comments of stereotypes of elders. The instructor compared the number and frequency of comments across the time intervals, week one and week fourteen in the semester. The instructor also completed individual and group review of the type of comments the students provided across to two time intervals.

The instructor will collect the written comments from students enrolled in an adult aging course in the Spring 2012 semester and comments from the elders they interview. Both students and elders will be asked to provide comments related to stereotypes of elders. The instructor will compare the number and frequency of comments across the time intervals, at the beginning of class and at the end of class. The instructor will also complete individual and group analysis of the type of comments the students provided across to two time intervals. Comments will also be analyzed across groups comparing students’ comments to elders’ comments. Analysis will be conducted seeking common themes within and across cases or life stories.

Intergenerational issues

Research has shown that many non-elders hold negative views about elders and specifically the physical aspects of aging. Studies show that children begin developing negative views about the elderly before age 10 years (Lynott & Merola, 2007). Intergenerational research is important to inform. This project engaged university students, many of them pre-professionals, in an effort to influence their views towards elders before they entered the workforce. Cross disciplinary research shows that interpersonal contact can positively impact attitudes. Research on interracial biases and prejudices has demonstrated changes in behaviors and attitudes.

Students

As part of their coursework, the university students enrolled in an aging course were asked to explore a variety of issues related to aging. Students engaged in class lectures and class exercises. Additionally, students were engaged in experiential learning activities. Students participated in several site visits to facilities providing senior recreational activities, assisted living and full medical residential care. Presentations from local service providers supplemented student learning. The primary student project involved several interviews conducted with elders. The stipulation was that students identify an elder in their family or in the local community who was, at least, two generations older. The majority of students interviewed their grandparents. Efforts were made to assess student attitudes towards elders. Students were asked to provide a written list of stereotypes about elders at two different intervals, at the beginning of the course and again at the end of the course. The information collected at the beginning of the course would serve as a baseline of information about the stereotypes students reported. The students are again asked to complete the stereotype exercise at the end of class following nearly three months of course lectures and exercises, site visits, and several interviews with elders.

Consent

University students enrolled in the aging course and the elders they interviewed were asked to voluntarily participate in the study. Each participant was informed of the purpose of the study and provided a written explanation of the study. The consent form and research protocols were approved by the university’s Institutional Review Board.

Stereotypes

Students enrolled in the aging course were asked to provide written stereotypes about elders. The
comments received at the beginning of the course, week one, were majority negative stereotypes. Very few positive stereotypes were noted by the students and very few were neutral comments, neither positive nor negative. The students were not directed to provide negative stereotypes but the majority of the comments were negative. There were common critical comments identifying elders as poor drivers, having multiple health problems, and lacking decent social skills as identified with words like grumpy or crabby or cranky.

At the end of the course, students reported more positive stereotypes or stereotypes which the instructor identified as neutral. There were more positive stereotypes recorded by students during time two. Elders were identified as kind, caring, insightful, and loving to family and friends. Neutral comments included references to social contact (e.g., lonely without visitor) or economic issues (e.g., thrifty).

Additional Projects

This preliminary study has provided a baseline of information from both students and elders. Future studies will include the examination of biases or stereotypes bi-directionally by gathering information from both the student and elder. For future studies, the perceptions of both the elders and the students will be collected and analyzed. Students will be asked to complete an aging exercise developed by Masters and Holley (2006) designed to facilitate learning about individual aging. As part of the exercise students will be asked to visualize their own aging experience and to develop supporting graphic images addressing the areas of physical, environmental/residence, social world, financial support, and psychological/spiritual support. The life stories project has become a part of the aging course curriculum, and there is hope that the information collected will become part of a growing data base of intergenerational relationship information.

References


ELL Teacher Informal Collaboration within Their Occupational Communities: A Qualitative Study

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Introduction

As English Language Learner (ELL) teachers have entered into a new era, both an electronic age and a time of increased accountability, the importance of our knowledge base increases as well (Arcaro, 1995). In order to better understand what we need to know and how we may acquire this knowledge, a qualitative study of informal collaboration was conducted to answer the question, how do k-12 ELL teachers informally collaborate.

Background

Arcaro (1995) exemplifies the shift which has transpired in education in the United States. We have seen a change from the regionally determined criteria for education to the nationally driven curriculum. Among this transformation are global ELL standards and state sanctioned ELL assessments (Iowa Department of Education, 2007, Missouri Department of Elementary and Secondary Education, 2009). These assessments illustrate to the state how the school ELL teacher and program are progressing.

With these increased mandates comes a need to further our knowledge of ELL related issues. As Nonaka (1994) illustrates in his idea of knowledge creation, ELL teachers need to share the knowledge that they have with other ELL teachers who can in turn share what knowledge they have, as a way of creating a knowledge spiral. Through this knowledge sharing model ELL teachers can further their understanding of current ELL issues, pedagogy, and related issues. This type of sharing can be difficult for content specific teachers, such as ELL teachers, who may be geographically bound and the sole ELL teacher in the building or district (Little, 2007).

Collaboration

Little (2007) identifies collaboration as a method by which teachers can grow professionally. Collaboration is described by many researchers, with varying definitions (Yukl, 2006; Mezirow, 2000). The overarching idea of collaboration is the sharing of knowledge with others in the same field. Steele (2008) clarifies our understanding of the idea of others in the same field as members of an occupational communities. Hu (2005) further refines our idea of collaboration to be delineated between formal and informal collaboration, or collaboration which is imposed or driven by the district versus that which is self-sought.

The Study

This qualitative study aimed to answer the overarching question:

How do ELL teachers develop professionally through informal collaboration within their occupational communities?

Research Methods

This study was designed to be a qualitative study to help understand how ELL teachers informally collaborate. The study location was bound in two mid-western states within a 20 county area. All schools within this bound area were rural, under 3,000 student population and employed less than two full time ELL teachers. The participants were selected based on their employment within these pre-selected schools. The participants were invited to participate in interviews about their experiences informally collaborating within their occupational community.

Interviews

The interview process began with two open-ended interview questions. Through the process of constant comparative method, further questioning ensued. At the completion of the interview process, the transcripts were reviewed and coded to allow emergence of common threads.

Findings

Through the coding system employed, three common threads emerged. The first included the methods of informal collaboration used by the ELL teachers. The second thread emerged as the
issues about which the ELL teachers informally collaborated. The third and final thread was the motivation of the ELL teachers to informally collaborate.

**Informal Collaboration Methods**

ELL teachers noted that they utilized various methods by which to informally collaborate.

*Asynchronous.* Due to their geographically isolated areas and the ability to communicate only when they had time, the participants’ discussion illuminated utilizing the asynchronous Internet method. Most participants also noted utilizing email. One teacher stated, “I go to chat boards daily,” due to the on-demand availability of the communication tool. He said that he visits the chat rooms/blogs, “…sometimes more than once a day” noting, “It’s pretty addictive.”

*Synchronous.*

Use of the telephone was reported when immediate questions needed answering or explanation. However, the method utilized by all participants to informally collaborate within their occupational community was face-to-face. Each participant noted they had collaborated face-to-face, mainly via attending workshops or conferences.

**Informal Collaboration Issues**

Informal collaboration issues emerged as a thread through the participant discussions. These included high stakes testing and accommodations questions.

*Testing.*

As testing protocols have changed in both states where the participants resided, updated information and specific protocols were issues about which the four of the seven participants had collaborated. One of the participants noted that he chose to informally collaborate in order to “keep up with” the changing testing regulations.

*Accommodations.*

The ELL teacher participants noted that they informally collaborate about best practices and strategies of working with mainstream teachers about “accommodation ideas.”

**Motivation for Informal Collaboration**

“I am an island” best reflected the common participant responses regarding why they informally collaborated within their occupational communities. While one participant made this statement, all of the participants conveyed this idea. Another participant said, “It was so nice to have similar people talk about similar issues” which was his rationale for seeking out informal collaboration opportunities.

**Making Meaning through Metaphors**

As a way to begin making meaning and to better understand how they felt about their informal collaboration experience, the participants were asked to create a metaphor for how they felt about their informal collaboration experiences. Based on these discussions, unique metaphors were created.

**Surviving Whitewater Rapids.**

ELL teachers are whitewater rafters thrown overboard. They must select their methods to collaborate in similar ways as people who have just been thrown overboard in the whitewater rapids select their form of floatation: when the need arises. They look for the best method at hand and use it. ELL teachers use the most efficient methods of informal collaboration given the situations in which they find themselves. At times, this includes face-to-face informal collaboration. For example, when the teacher is at an ELL conference, workshop, or class, it is more prudent to turn to another ELL teacher and ask a colleague questions and/or share ideas. The asynchronous Internet application of email is selected when the ELL teacher is at school, where no other ELL teachers are geographically available to informally collaborate via face-to-
face methods. In similar types of situations, telephone conversations can be used to informally collaborate. One ELL teacher participant said that he utilized the asynchronous Internet application of chat boards to informally collaborate with other ELL teachers. This offered him immediate and substantial informal collaboration opportunities when he was trying to grasp best practices in ELL situations, without any other ELL teachers geographically viable to him. The ELL teacher participants seemed to crave the informal collaboration opportunities, but were forced to select their methods of collaboration due to their remote geographical status.

Through review of collaboration literature, this metaphor is better understood. In general, within the vast and non-content-specific education world, collaboration has been widely studied and offers concurring references as to why the ELL teachers have chosen these forms of informal collaboration. Education collaboration researchers DuFour, DuFour, Eaker, and Many (2006) acknowledge that teacher collaborators should not limit themselves and their collaboration efforts to the rudimentary methods of face-to-face and telephone methods, but should collaborate through electronic means in order not to stifle collaboration opportunities. This thereby bolsters the idea that the ELL teachers in the study are utilizing a current method of collaborating and not utilizing only the antiquated and rudimentary tools available to them. One participant in the study, Alex, attested that he liked to utilize the asynchronous Internet application of chat boards “daily… [because] they are addictive.” Electronic collaboration researchers Chen, Chen, and Tsai (2009) have found the effectiveness of these platforms to serve as a method for teachers to collaborate as well.

**Selecting Items During a Hurricane.**

ELL teachers can also be seen as hurricane victims forced to decide what they need the most. Issues which are of the utmost importance to sustaining student success were about what ELL teachers were choosing to informally collaborate. Important issues such as ELL proficiency testing and making accommodations for the ELL students in the mainstream classroom were two themes which were embedded in the participants’ interviews. This resonated in the abundance of literature about ELL testing (Allison, 1999; Bachman & Palmer, 2009; Brown, 2004; McNamara, 2000) and about accommodations to be made for ELL students (Vacca-Rizopoulos & Nicoletti, 2009; Zigmond & Kloo, 2009; Willner, Rivera, & Acosta, 2009; Garcia & Tyler, 2010). This is due in part to the continual changes made to state-mandated ELL proficiency testing, and the ELL teachers’ need to stay current with the state expectations (Brainard, 1978; North, 1993; Chalhoub-Deville, 2009). Also, as the Center for Applied Linguistics (Jameson, 1998) maintained in their literature, mainstream teachers are expected to teach all of their students, including ELL students (Grognet, Jameson, Franco, & Derrick-Mescua, 2000; Jameson, 1998). Generally, the responsibility falls on the ELL teacher to provide assistance in making accommodations. For this reason, the participants said that there was frustration about how to best work with the mainstream teachers to meet the accommodation expectations.

Through the eyes of the ELL teacher participants, we have seen the issues about which they chose to collaborate, the issues of utmost importance to the success of their students, school, and self. Similar to the few items which a person selects to protect during a hurricane, these items are valuable to the ELL teachers.

**Living as an Island Castaway.**

ELL teachers are each a Robinson Crusoe, stranded on islands. Working in a school where there are fewer than two full time ELL teachers is like working on an island, stranded without other teachers to help with the workload or with whom to informally collaborate. This sentiment was expressed by one participant, Alex, who maintained he is “an island,” working as the sole
ELL teacher in his building and district. This resonated through numerous participant interviews. This need to learn by reflecting and discussing issues (Mezirow, 2000) was illustrated by all of the participants craving opportunities to share knowledge. The participants had thus found many methods in which to informally collaborate, in order to make them feel less of a teacher stranded without assistance.

With this sentiment and desire to collaborate being discussed, the participants maintained that they did not do enough collaboration. This feeling of a lack of informal collaboration was due to a lack of time. When a teacher is living as an island castaway, with no one to help with the workload, and then extra duties are layered on top, a feeling of inefficiency and frustration is bound to happen. Silva (2010) acknowledges a scheduling restriction in her review of the average teacher workday, stating that most schools do not offer teachers a schedule conducive to collaboration. According to Silva, “Most of a teacher’s schedule is committed to direct classroom instruction, little time remains for teachers to review standards and curriculum, craft new lessons, assess results, share knowledge and planning ideas with colleagues, and consult with students and parents” (p. 62).

**Implications**

This qualitative study has implications for those who work in various aspects of ELL education. The current study can serve as a platform for future studies, as well as serve as a foundation for collecting poignant organization-specific data. These can include institutions of higher education (IHE) and K-12 educational organizations.

**Implications for Institutions of Higher Education**

There are two areas where IHE could use this study for further exploration. IHE can utilize this study to better understand what questions to ask of ELL teachers when polling the stakeholders about what they are looking for in their own professional development opportunities. Also, this study can provide a platform from which to further faculty research opportunities related to content specific informal collaboration.

*Professional development coursework.*

Better understanding the motivation, issues, and methods used currently by geographically-isolated ELL teachers can offer an IHE key ideas for constructing professional development opportunities needs analysis for their ELL teacher stakeholders. This could include building more online components to assist in overcoming the remote locations of many of these geographically-isolated teachers. Another idea explored in the research was that of collaborating in face-to-face venues, such as ELL conferences and/or workshops, and working with local education agencies about high stakes issues. Given this information, if an IHE is located in a remote yet high-need ELL area, exploring the ability to provide such services would be imperative to meeting the geographically-isolated ELL teachers’ needs. As a result, teachers would be better prepared to meet the ever growing IHE need for augmenting student growth in this era of accountability.

*Further research opportunities.*

As research is mandated for most tenure-track university faculty, this study provides a platform from which to further delve into professional development through informal collaboration. As this study was conducted in the Midwest about geographically-isolated ELL teachers, further research is needed to better understand what all ELL teachers - rural and urban; elementary and secondary; higher education; national and international - are doing to further their professional development.
Implications for Administrators

Having insight regarding what current informal collaboration or professional development content-specific ELL teachers utilize offers administrators information from which they can build future professional development opportunities. This will help to better utilize the scarce resources our schools have.

Not only did these teacher-participants describe their need and desire to access discussions with other teachers, they also described a need to stay current in meeting state ELL mandates. Allowing this type of communication to be a core component of professional development opportunities for remote ELL teachers could help ensure that schools meet those high stakes expectations, and also ensure a highly informed professional development opportunity.

Implications for ELL Teachers

By offering knowledge about informal collaboration tendencies of some ELL teachers, all ELL teachers can have a better understanding of where and by what means others in their occupational community are turning in order to gain knowledge about high-stakes and big-issue problems. By offering this understanding, teachers can then tap into similar applications to become briefed on current trends and issues.

Asynchronous formats.

Based upon this study, ELL teachers can see that some of their colleagues are utilizing online asynchronous platforms such as blogs and chat rooms to exchange high-stakes ideas. With this knowledge, ELL teachers can understand how others within their occupational community are utilizing such tools, and that some have found them to be not only beneficial, but also to be a good use of their scarce resource, time. Also, given the push towards offering online professional development opportunities and informal collaboration venues at IHE, ELL teachers who want to pursue further coursework, degrees, or informal collaboration opportunities should explore their local or state university websites for such venues.

Synchronous exchanges.

In this study of ELL teachers within two states, the teachers discussed their local education agencies and their state-sanctioned ELL conferences. Both of these issues were brought to light by multiple participants to illuminate two opportunities when the participants utilized face-to-face informal collaboration. The teachers found the immediate feedback from collaboration involving these two entities to be extremely helpful in better understanding the high-stakes issues of accommodations and testing.

Given this understanding, ELL teachers could explore the availability of both state-operated local education agency offices and state conferences. Further research would need to be done to better understand the availability of such state-assistance opportunities. Knowing that they exist within the two states selected for this study, it is plausible that they exist in other states as well.

Conclusions

In closing, this qualitative study about informal collaboration has illuminated the issues, the methods, and the motivation about which ELL teachers chose to informally collaborate. These themes can assist IHE in planning to meet the existing needs of the K-12 ELL teacher. Additionally, this study offers a better understanding to other ELL teachers in geographically-isolated locations of the opportunities by which they can informally collaborate with others in their occupational communities. Finally, this study offers administrators an understanding of what their ELL teachers may already be pursuing independently as professional development, thereby allowing them to tap into the existing channels of professional development and to better utilize the scarce resources of their district.
References


A Global Longitudinal Study from 1990 to 2010 of Attitudes À Propos the “Other” in Society

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Abstract

This study investigates attitudes concerning sixteen research questions concerning the concept of the “other.” The sample includes 5,763 individuals, 374,595 data points, and offers trend analyses on how research subjects view changes in the world over one twenty-year generation. This international study compares respondents’ attitudes toward four different thought-eras from two different points in time, 1990/1 and 2009/10. The research model classifies the four thought-eras into one of the following categories of attitudes: traditional, nontraditional, modern, and postmodern. And, in turn, each of the thought-eras has four specific questions related to that thought-era. The geographic span of the sample includes the following states: California, Colorado, Illinois, Kansas, Louisiana, Nebraska, North Carolina, Oklahoma, South Carolina, Texas, Washington, and the following countries: Australia, Canada, Chile, England, Finland, Gaza Strip, Iraq, Mexico, Philippines, Romania, South Korea, Wales, and the Native American nation of Makah tribe.

Purpose and Methodology

This research has twin objectives: First, to examine college students’ view of living with others via four thought-eras: traditional, nontraditional, modern, and postmodern. Second, to compare and contrast how social factors, over the course of twenty years, have changed college students’ answers to the research questions.

In the 1990/91 school years, 2,562 college students in the United States and numerous foreign countries responded. In 2009/10 a total of 3,201 American and foreign college students answered the research instrument. The total of 5,763 respondents is a convenience sample. The states included in the sample include: California, Colorado, Illinois, Kansas, Louisiana, Nebraska, North Carolina, Oklahoma, South Carolina, Texas, and Washington. The countries included in the sample include: Australia, Canada, Chile, England, Finland, Gaza Strip, Iraq, Mexico, Philippines, Romania, South Korea, Wales, and the Native American nation of Makah tribe.

The research methodology, referred to as the Signification Model, is bi-dimensional (Ketcham et al., 2001, p.p. 4-7). The model traverses four “Value Clusters” by three “Existence Modes.” The value clusters represent four thought-eras: traditional, modern, postmodern, and nontraditional. Jean-Francois Lyotard suggested the thought-era taxonomy in his The Postmodern Condition: A Report on Knowledge

Review of the Literature

According to Ley (2003), “The first social science entries for postmodernism occurred in 1981. Double digit figures for postmodernism were not reached until 1987. By 2002, the trend of studying postmodernism was declining rapidly (p. 540).” Therefore, it must be noted that most of the research on postmodernism in the sociological literature occurred in the 1990s. Therefore, over 80 percent of the articles used for this research addressing postmodern theory are from the 1990s.

One of the defining characteristics of postmodernism is its concern with “discourse” and with “texts” (Wallace and Wolf, 1999). Postmodernists make the language of written texts their primary focus (Wallace & Wolf 1999). Jacques Derrida and Michel Foucault are perhaps two of the most famous authors of postmodernist theory. They differed in their approaches to studying postmodernism. The writer, Walker (1996), sees postmodern as “multiple realities the questioning of convention, a lack of unity or cultural centeredness, and emphasis on diversity, a fascination for innovation and change, mixing of styles, and a tolerance for fragmentation and ambiguity (p. 55).”
Walker (1996), states “Cultural postmodernism is defined by certain transformations of material structures of technology, communication, and global economies, which subsequently drive and govern other transformations. Included in these transformations are the rise of the computer, other digital technologies, and the proliferation of an all pervasive media (pp. 2-3).” She suggests that these transformations are especially common in societies such as the U.S., Europe, and Japan which are all “postindustrial” societies that have shifted from manufacturing to an information and services base.

*Description of “other-directedness”*

Our research focuses on how people respond to questions from four different thought-eras in the form of the “other.” The “other” or “other-directedness” was term coined by David Riesman in 1950. It refers to a personality type which seeks approval and acceptance from others—as opposed to inner-directedness, acting independently, and according to a personal moral code (Scott and Marshall 2005). Other-directedness is said to result from a bureaucratic society geared to consumption (Scott and Marshall 2005). Further, the term “other directedness” is an American characteristic that Riesman suggested was moving people from inner-directedness to other-directedness with the advance of industrialization and growth of population density.

After viewing how college students answered their questions, we believe Riesman was on target with the term “other-directedness” and how our society is shifting from more certainty to more ambiguity. Our sociological theory of choice in our researcher for best explaining this movement comes from postmodern theory in sociology. Perhaps Best and Kellner (1991) sum it up best and offer the best explanation as to why college students from all over the world seem to be uncertain about their values and the future and more “other-directed” as Riesman suggests: “Computers, media, new forms of knowledge, and changes in the socio-economic system are producing a postmodern social formation. Postmodern theory rejects modern assumptions of social coherence and notions of causality in favor of multiplicity, plurality, fragmentation, and indeterminacy (pp. 3-4).”

*Description of the four thought-era’s values*

Traditional values collect around the core of Western canons, long-established virtues and ancient principles. People that retain traditional values herald their bond with handed-down ideas of custom, religion and heritage. Often, this value cluster adheres to the “classical” Greco-Roman values.

“The nontraditional component is what Lyotard refers to as “antimodern.” The people that hold such values are the “againsters.” Other terms for this cluster could be avant-garde, beatnik, hippie, lost generation, etc.” (Ketcham et al. 2010).

The modern value cluster is grounded in the Enlightenment. “The 18th-century philosophical movement was predicated on reason, individualism, progress and science” (Ketcham et al. 2010). The framework of the United States is shaped by Enlightenment thinkers such as Locke and Montesquieu.

Lastly, postmodern values are built on “incredulity towards metanarratives.” (Lyotard 1979) Metanarratives are grand stories told to legitimize truths. Postmodernity holds to a profound skepticism concerning knowledge, therefore these grand stories have lost their power to convince people. This “incredulity towards metanarratives” reflects Nietzsche’s foretelling of the collapse of Metaphysics. As Lyotard (1979) states: “The obsolescence of the metanarrative apparatus of legitimation corresponds, most notably, [to] the crisis of metaphysical philosophy” (xxiv-xxv). This disbelief in certainty can find expression in the cynical and nihilistic Weltanschauungen that Nietzsche foretold.
Findings

The Traditional and the Other

Table 1 reflects a sufficient shift in the 2010 group. There is a massive move towards agreeing with the idea that children are not necessary for a happy life. The 1990 sample agreed 49% and disagreed 40.5%, with about 10% being uncertain. The change in attitude over twenty years is reflected in the 2010 sample. The 2010 sample agreed 57% and disagreed only 28.6%, with 14.1% being uncertain. Over 71% of the 2010 group does not think that children are necessary for a happy life.

Table 2 measures an egalitarian impulse which would favor a “disagree” answer to this statement. The 1990 sample disagrees with this statement the most. Interestingly, in the 1990 and 2010 samples, both agree exactly 41%. However, there is a shift from strongly to mildly agree in 2010, therefore, there is less certainty with the 2010 sample. There is an overall drop in disagree responses in 2010. The 1990 disagrees is 42.8% and the 2010 disagrees drops to 37.5%, with the largest decline in the strongly disagree. Uncertainty rises over 5% in 2010. So, in 2010, both the extreme answers dropped and the uncertainty response grew. Hence, we see less certain responses in 2010.

Table 3 measure the traditional attitude concerning the power of rituals. Traditional people tend to value and esteem rituals. The 2010 group moves away from both strongly answers. The mildly answers flip from disagree to agree. And there is a large shift into uncertainty in 2010. Overall, there is a move in the 2010 sample towards more uncertainty towards rituals.

The Nontraditional and the Other

Table 4’s pattern of responses is becoming familiar. There is a 2010 shift away from both the “strongly” answers. There is also a flip from mildly disagree to mildly agree. And, finally, there is a large increase in the uncertain response.

The Table 5 statement, “you can only depend on yourself…” shows a shift to a more cynical position with the 2010 group. Again, there is a move away from both of the “strongly” answers. Then there is a flip in responses from mildly disagree to mildly agree. And the greatest change is in increase in the uncertain answer in 2010. The agree answers in 1990 and 2010 are about the same. The 2010 mildly and strongly disagree answers move into the uncertain answer. Therefore, there is a less disagreeing and more uncertainty regarding this statement. The 2010 sample is more suspicious.

The nontraditional statement in Table 6 demonstrates a slight shift over twenty years. The disagrees in 2010 stay almost the same, but there is a move out of strongly into mildly disagree. The shift is that in 2010 the strongly agree drops the same amount as there is an increase in uncertainty.

The Modern and the Other

Table 7 assesses the modern meritocracy impulse. Moderns should be inclined to agree with statement, “merit should be the basis for the determining a person’s status in society.” This data set is out of the ordinary. In 1990, 46% agreed with this statement. In 2010 the agree percentage dropped to 38%. The disagrees stayed about the same over the twenty year period with 2010 dropping only a total of 1%. The largest change is the undecided category with an 8% increase in 2010 to 32.4%. Again, uncertainty shows up in the 2010 group.

The Table 8 statement suggests a predisposition towards Western traditions. In 1990 that predisposition was strong at nearly 50%. That attitude changed mightily over the twenty-year period. In 2010 the agrees feel to 34%. The disagrees stayed similar with a 3% jump in mildly
agree and with strongly agree staying the same. The greatest change is the 11% increase in uncertain responses in 2010.

Table 9’s statement reflects the modern sense of progress and optimism. The data shows a marked decline in this modern optimistic attitude with a less people disagreeing with the statement in 2010. The greatest change is in the uncertain category with an 8% increase in 2010.

The Postmodern and the Other

Table 10 is a postmodern egalitarian statement. It is clear that the 2010 group disagrees less with the statement that “my ideas are as good as those of an authority.” However, they also have reduced there strongly agree answers from 32.6% in 1990 to 24.6% in 2010. The 2010 group shifts towards mildly agree and undecided. The mildly agree moved up in 2010 by 12% points to 48%. And the undecided moved up by 6% to 19.2% in 2010. So, like the 1990 group, the 2010 group still agrees with the statement, but with much less confidence.

Table 11 shows a growing ambiguity in 2010 towards the statement, “all limits on personal choice of action are outmoded and unjust.” The combined agrees stay the same in 2010 as in 1990 at 23.3% but with a shift away from strongly to mildly agree. The combined disagrees drops by 9% in 2010 with a corresponding increase in undecided of 9%. Therefore, the largest variation in the 2010 group is the increase in uncertainty.

Table 12’s data signals a major shift in this egalitarian statement. The 1990 sample is negatively skewed with 57.2% agreeing that all institutions should be governed democratically and only 23.4% disagreeing. The 2010 data shifts to a normal distribution with a considerable move to uncertainty. The 2010 undecided jumped by 11% and there is a large move from agreeing to disagreeing. Clearly, there is negative response to this statement in 2010 relative to 1990.

Meta-trends in the Study

Following are four meta-trend graphs representing the aggregate trends in the sets of thought-era questions. The meta-trend graphs are cumulative and reflect the merged data from four questions from each thought-era. Because each of the graphs combines the data from four questions, there are a total of 400 percentage points for each meta-trend graph. (Note that all four questions for each thought-era are not shown above because of space constraints.)

The meta-trend technique looks at the whole of the data for the entirety of the thought-eras (one meta-trend graph for each --- traditional, nontraditional, modern and postmodern). All of the answers for all of the thought-era are included in each meta-trend.

The Traditional and the Other

The cumulative percentages for the traditional set of questions concerning the “other” have stayed relatively stable over the twenty-year period of the study. The 2010 sample increased by 13% points their strongly agree answers, but, on the other hand, the 2010 mildly agree answers dropped by 16% points. The undecided answers in 2010 increased by a total of 6% points. The 2010 mildly disagree is up by 3% points and strongly agree stayed the same as in 1990.

The Nontraditional and the Other

The cumulative percentages for the nontraditional set of questions concerning the “other” have shifted out of the disagreeing to mildly agree and uncertain over the twenty-year period of the study. The difference between 1990 and 2010 is a total of only 1% out of a total of 400% points. The 2010 group increased their mildly agree answers by 10% points. The undecided, in 2010, grew by 17% points. Both of the disagrees in 2010 dropped. The mildly disagrees dropped by 8% points and the strongly disagrees dropped by 18% points.

The Modern and the Other
The cumulative percentages for the modern set of questions concerning the “other” have moved robustly to uncertainty over the twenty-year period of the study. All of the answers except for undecided dropped for the 2010 group. The 2010s strongly agree dropped by 12% points, mildly agree dropped by 7% points, mildly disagree dropped by 6% points and strongly disagree dropped by 7% points. Interestingly, undecided increased by 32% points! Modern attitudes held by the 2010 sample are markedly uncertain.

The Postmodern and the Other

Over the twenty years between 1990 and 2010 postmodern attitudes, like most of the other attitude sets, lost credence. Uncertain responses, in 2010, rose by 24% points. The strongly disagree answers stayed the same over twenty years, whereas, the strongly agree answers plunged 32% points. The mildly disagree and mildly agree answers increased about the same at 4 and 3 percentage points respectively. The undecided answers jumped 24% points for the 2010 group.

Conclusion

Postmodern theory predicts a disbelief regarding fundamental convictions. --- The “incredulity towards metanarratives” that Lyotard discussed. Over the twenty years of this longitudinal study that disbelief and uncertainty has manifested itself. Fascinatingly, this has included a disbelief in postmodern attitudes, themselves. This is a paradox. Postmodern theory is the predictor that foretells the collapse of the metaphysical stories that inform our true world of eternal truths. So, as this study has shown, the disbelief has become evident over the twenty years with the increase of uncertainty. Then how is there also less certainty in postmodern attitudes?

This phenomenon can be explained by an analogy via Russell’s paradox. After Russell read Frege’s second volume of the Basic Laws of Arithmetic he sent Frege a now-famous letter arguing that there was a contradiction within the logic of the Basic Laws. The contradiction Russell found in Frege can be established with an example. Say that there is a book (a category) that holds the name of all books every written (the objects). The paradox is whether the book of the set of all books has within it its own name. Since the book of the set of all books is a book it must also be listed in that book of the set of all books. This is what Russell pointed out to Frege. So, since postmodern theory foretells the collapse of metaphysical stories, its must logically foretell the collapse of its own postmodern attitudes. And this is what seems to have happened as reflected in this study. The power of postmodern theory to foretell the collapse of metaphysics oddly also foretells the collapse of itself, postmodern attitudes.

Further, Geyh (2003), states that today’s college students are postmodern in terms of their intellectual abilities, but she also believes they are pre-modern as well. She makes this distinction because “students are caught between their postmodern experience and the ever-present transmission of messages from the media, their parents, and their professors reinforcing traditional modes of thought that make it difficult for them to fully comprehend their collegiate experience.
References:
Figure 1: Sample from 1990 and 2010
Table 1. Children are not necessary for a happy life

Table 2. The coach of an athletic team, not the players, should determine team rules
Table 3. Rituals are vital

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Table 4. First names always should be used beginning with the first meeting

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Table 5. You can only depend on yourself in this world

Table 6. Institutions are basically bad
Table 7. Merit should be the basis for determining a person's status in society.

Table 8. A complete education must include knowledge of the greatest ideas of the Western world.
Table 9. We are living in wonderful times

Table 10. My ideas are as good as those of an authority
Table 11. All limits on personal choice of action are outmoded and unjust.

Table 12. All institutions should be governed democratically, even teams and family.
Table 13. cumulative %s of all traditional/other questions

Table 14. cumulative %s of all nontraditional/other questions
Table 15. Cumulative modern/other questions

Table 16. Cumulative postmodern/other questions
Academic Freedom for Teachers

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In speaking of Constitutional Rights, Archibald MacLeash once said, “The one certain and fixed point in the entire discussion is this: that freedom of expression is guaranteed to citizens in a liberal democracy not for the pleasure of the citizens but for the health of the state.” (Alexander and Alexander, 2000) To most, the concept of academic freedom is a basic right, if not a Constitutional right, of educators in the classroom and in research. While freedom in research and teaching has traditionally been assumed to be more in the realm of higher education, the ability to make reasonable decisions related to presentation of academic content has been accepted at the K-12 levels as a basic responsibility of instruction. If the textbooks, or tradition, were unclear, misleading, or wrong concerning an event, the classroom teacher (as subject matter expert) was expected to correct or clarify the mistake.

In 2010, however, a Federal Appeals Court effectively changed the teachers’ roll from being subject matter experts to being implementation facilitators for whatever the curriculum guide required to be taught. In Evans-Marshall v. Board of Education of the Tipp City Exempted Village School District (2010), the U. S. 6th Circuit Court of Appeals unanimously upheld the firing of a teacher who had taught material not included in the curriculum in her school. In the state of Ohio where the case was decided, “State law gives elected officials--the school board--not teachers, not the chair of the department, not the principal, not even the superintendent, responsibility over the curriculum. This is an accountability measure, pure and simple, one that ensures the citizens of a community have a say over a matter of considerable importance to many of them—their children’s education—by giving them control over membership on the board.” The opinion of the court not only allowed the school board to prevent the teacher from teaching what was not in the curriculum, but also to regulate what was in the curriculum and how it was presented.

Normally, this would be seen as an isolated instance that would have little impact on schools beyond the district involved. However, at almost the same time, the State Board of Education in Texas was involved in a required 10-year review of social studies curriculum for the state. New standards, which would become the guiding principles of curriculum and textbook design for the next ten years, would be developed and would be legally required in Texas schools. These standards were approved on a party-line vote (10 Republicans approved and 5 Democrats opposed the standards) and were, to many critics, more reflective of ideology than of sound history. For example, a major criticism of the new Texas standards was that they required inclusion of historical Republican Party leaders, while not requiring that Democratic Party leaders be included in the curriculum. Additionally, the new guidelines were accused of explicitly endorsing political conservatism and banning political liberalism.

The debate around the new standards, which began before they were adopted, centered primarily on questions of partisan politicization of content, the role of minorities in the curriculum, and the place of religion in the social studies curriculum. While some of the new standards attempted to redefine commonly held interpretations of the U.S. Constitution (e.g., First Amendment Religious Freedoms), other parts of the standards seemed to re-write history.

For example, one portion of the new standards requires that students be taught that “conservatives were responsible for” the civil rights legislation of the 1960’s and 1970’s. In that same section is a requirement that the curriculum include information about important conservative individuals (e.g., Ronald Reagan) and groups (e.g., The Eagle Forum) from the 1980’s and 1990’s. The standards include no similar guidance related to inclusion of liberal individuals or groups (Stutz, 2010). And, in an even more blatant partisan act, the Board seemed to require that Joseph McCarthy, the Senator whose claims regarding large numbers of
communist sympathizers led to his being censured by the Senate in 1954, be rehabilitated by requiring a statement concerning “how the later release of the Venona papers confirmed suspicions of communist infiltration in the U.S. government (Schneider, 2010).” While the Venona papers do confirm, to a certain extent, the general thesis of McCarthy’s charges, Harvey Klehr points out that “virtually none of the people that McCarthy claimed or alleged were Soviet agents turn up in Venona….the new information from Russian and American archives does not vindicate McCarthy. He remains a demagogue, whose wild charges actually made the fight against Communist subversions more difficult (Schneider, 2010).”

The standards were also criticized for their treatment of minorities. While the 2010 census showed that the number of Hispanics in Texas was growing at twice the rates of any other ethnicity, the State Board rejected a proposal in the new standards that would require mentioning “Tejanos were among the fallen heroes of the Alamo (Texas Textbook Massacre, 2010).” The rejection of this proposal led to a walk-out by the Democratic members of the board. Saying “I’ve had it. This is it. I’m leaving for the evening. The board is pretending this is white America, Hispanics don’t exist. I’ve never seen a rewrite like this. This is a step backward,” Mary Helen Berlanga joined other Democrats in leaving the meeting. The vote also led the NAACP and the Texas League of United Latin American Citizens to call for a Federal review to determine if Texas was failing to provide equal educational opportunity to all of its citizens (Graczyk, 2010). The board also required that all references to slave trading be referred to as “Atlantic Triangular Trade,” and that references to American imperialism be described as “expansionism.”

As one would also expect, the treatment of religion in the new standards was also fodder for controversy. David Bradley, a Republican board member, was successful in blocking a requirement that students be taught to examine the reasons the Founding Fathers protected religious freedom in America by barring government from promoting or disfavoring any particular religion over all others. According to Bradley, “I reject the notion by the left of a constitutional separation of church and state. I have $1000 for the charity of your choice if you can find it in the Constitution (Schneider, 2010). There was some speculation that this concern about teaching separation of church and state also lead to one of the more widely reported incidents: Removing Thomas Jefferson from the list of important influences on the Enlightenment. National media attention resulted in a reversal of the preliminary decision (Jefferson was left in), but brought to the forefront the attempt by some board members to control the treatment of religion in Texas schools.

The revised standards were the subject of intense debate, both in Texas and in other states. For example, shortly after the new standards were approved by the Texas State Board, a bill was introduced in the California legislature that required the State Board of Education to report any curriculum changes in textbooks or other materials to the state legislature and to the California Secretary of Education (Strauss, 2010). And, in January 2011, the Tea Party of Tennessee issued a list of demands for changing textbooks, strikingly similar to the new Texas standards.

Reports issued after adoption were critical of the new standards. The Thomas B. Fordham Institute, a conservative think-tank, gave the standards a “D” grade, stating, “The conservative majority on the Texas State Board of Education (SBOE) has openly sought to use the state curriculum to promote its political priorities, molding the telling of the past to justify its current views and aims (Bathija, 2011).” The Texas Higher Education Coordinating Board (the main oversight board for higher education in Texas) also issued a report saying the new standards in history are “inadequate, ineffective, and fail to meet the state’s college readiness standards.” The
report also was very critical of the process, from board approval to the curriculum itself (Texas History Education Standards, 2011).

As mentioned earlier, the classroom teacher has traditionally been the final arbiter of the soundness of the content. If the specified content was inaccurate or suspect, the classroom teacher was the “court of last resort” and was expected to make a professional judgment concerning what to teach. The Evans-Marshall case though, seems to remove that authority from teachers.

Though Evans-Marshall was decided at the Appellate level it remains to be seen if the decision will be supported by the U.S. Supreme Court. Tea Party supporters and conservative legislatures, in their efforts to return to an earlier time, may find their solutions to be neither democratic nor consistent with the principles embodied in the U.S. Constitution. In the meantime however, social studies teachers will be limited.

Many social studies teachers will find themselves between a rock and a hard place. Will they risk censure if they continue to teach a balanced approach to history (basically flouting the new guidelines) or do they teach the new guidelines (knowing they are teaching an incorrect interpretation of history)? Can a teacher disregard the advice of a principal who has implemented a new instructional plan and defend his or her opposition on the grounds of free speech?

To answer these questions, we must first understand the legal relationship between a teacher and the school board. Alexander and Alexander (2001) cite three sources of law:

“(1) constitutional rights and freedoms of the teacher as citizen; (2) statutory relationships that govern the conduct of public schools; and (3) contract conditions of employment that may be created and agreed to by both the teacher and the employer” (p. 718). As we will see, these sources are not wholly independent of each other but, rather, are interdependent.

**Supreme Court Cases:**

The issue of Academic Freedom is, at its core, a question of free speech. The Supreme Court has consistently supported teacher’s claims to First Amendment protections. Two cases involving higher education, one at the University of New Hampshire and the other at the University of Buffalo speak to this issue. “Although academic freedom is not one of the enumerated rights of the First Amendment, the Supreme Court on numerous occasions emphasized that the right to teach, to inquire, to evaluate and to study is fundamental to a democratic society (Sweezy v. New Hampshire, (1967).” In Keyishan v. Board of Regents, the Court concluded “The classroom is peculiarly the ‘market place of ideas.’ (1967).” Cases such as Sweezy and Keyishan recognize that teachers are citizens who are employed in public institutions and, because of this a teacher enters the school with constitutional freedoms of speech and association the school must demonstrate a compelling public reason to overcome the teacher’s academic freedom.

In 1961, Marvin L. Pickering was dismissed from his teaching position for writing a letter to the local newspaper critical of the school boards handling of a bond issue and the allocation of financial resources between the school’s educational and athletic programs. The U.S. Supreme Court reversed the Illinois State Supreme Court’s decision, which had upheld Pickering’s firing from his job as a teacher and held for Pickering:

“To the extent that the Illinois Supreme Court’s opinion may be read to suggest that teachers may constitutionally be compelled to relinquish the First Amendment rights they would otherwise enjoy as citizens to comment on matters of public interest in connection with the
operation of public schools in which they work, it proceeds on a premise that has been unequivocally rejected in numerous prior decisions of this court (Essex, p.206).”

The findings in Pickering were used as precedent in Connick v. Myers (1983) to argue that an Assistant District Attorney in New Orleans could not have her employment terminated. While the Court did not find the facts in Connick to be congruent with those in Pickering, the Court did use the findings from the two cases to form what became known as the Pickering-Connick Balancing Test. This test holds that:

When a public employee makes a statement, its content, form and context is examined in the totality of the record to determine if it is a matter of public concern, and the employee’s expression cannot be reasonably believed to cause harm to workplace harmony, discipline or operations. Because of the many forms employee speech and matters of public concern may take, the Supreme Court did not deem it appropriate or feasible to promulgate a general standard by which all statements are judged. (DeVoy, 2010)

The U.S. Supreme Court applied Pickering-Connick balancing test in a case (Mt. Healthy v. Doyle, 1977) where a teacher’s employment was terminated for insubordination, negligence of duty, and failure to follow directives of the school principles (Alexander and Alexander, p. 718).” Failure to follow directives of the school principal is pertinent in curriculum cases. The waters get very muddy between following directives and the role of the teacher. “Further, the nature of the teacher’s job is vital to analysis of appropriate legal constraints on her conduct of speech. Teachers are paid to communicate, to pass on knowledge to the young, to explore issues critically, and to promote understanding. In this sense, the job of teaching is closely connected to the freedoms of speech, belief, and association: a connection often referred to by the vague phrase ‘academic freedom’ (Kirp and Yudof, p. 199).”

Speech and the Connick Rule:

Connick and Pickering combined to form a two-step free speech test. First the initial inquiry is whether the speech is a matter of public concern; in this regard, Connick v. Myers (1983) states:

“When expression cannot be fairly considered as relating to any matter of political, social, or other concern to the community, government officials should enjoy wide latitude in managing their offices, without intrusive oversight by the judiciary in the name of the First Amendment.”

Second, if the speech is found to be a matter of public concern, the court must apply the Pickering balancing test. The interest of the public employee as a citizen in commenting on matters of public concern must be weighed against the interest of the state as an employer to promote effective and efficient public service (p. 724). The Sixth Circuit therefore concluded that the proper reading of Connick should include consideration of the following:

“Even if a public employee were acting out of a private motive (and/or as an employee of a school district) as long as the speech relates to matters of political, social or other concern to the community,’ as opposed to matters ‘only of personal interest,’ it shall be considered as touching upon matters of public concern (Alexander and Alexander, p. 710).”

In a 1994 decision, Waters v. Churchill the court reaffirmed its conclusion in previous cases that separated employee speech in to that which is a matter of “public concern” and that which is a matter of “personal interest” (Alexander and Alexander, p. 710).

Since 1967, it has been settled that a State cannot condition employment on a basis that infringes the employee’s constitutionally protected interest in freedom of expression. Keyishian
v. Board of Regents, 385 U.S. 589, 605-606 (1967); Pickering v. Board of Education, 391 U.S. 563 (1958); Perry v. Sindermann, 408 U.S. 593 (1972); and Branti v. Finkel, 445 U.S. 507, 515-516 (1980) The court’s task, as it defined Pickering, was to strike a balance between the interests of the employee, as a citizen, in commenting upon public concern and the interest of the State, as an employer, in promoting the efficiency of the public services it performs through its employees.

In Garrison v. Louisiana, the court stated, “Speech concerning public affairs is more than self-expression; it is the essence of self-government.”(1964). Accordingly, the Court has frequently reaffirmed that speech on public issues occupies the “highest rung of the hierarchy of the First Amendment values,” and is entitled to special protection.

According to the Harvard Law Review (2011), there are still legal questions to be addressed regarding Evans-Marshall, including the fact that the ruling “. . .overlooks an important feature that separates education from other areas of public employment and fails to account for the [Supreme] Court’s repeated adoption of balancing tests in similar situations. The court should have applied a balancing test that allows school boards to determine curricular objectives, permits teachers to tailor assignments and discussions to best accomplish those goals, and accounts for students’ intellectual and social needs.”

In a best-case scenario, the impact of Evans-Marshall is benign. School Boards, the sole authorities over curriculum, according to the judges, will adopt broad goals and will leave implementation of those goals to teachers and administrators at the school level. However, in a worst-case scenario, a school board can use the curriculum to further a political agenda by requiring that teachers present information that could, very possibly, be slanted toward a particular view, or that could even be untrue. As shown by the new Texas Social Studies Standards, the Texas State Board of Education, this danger is not just a possibility, but is, indeed, already in place.
References
Garrison v. Louisiana (1964), 379 US 64.
Perry v. Sindermann (1972), 408 U.S. 593.
Prior Education Work Experience = Greater Teacher Retention

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The Scenario

There is a teacher retention and attrition problem in the United States along with recruiting traditional students with high academic standing into teaching programs. The loss of teachers cost the United States billion of dollars each year in teacher preparation programs, professional development training at school districts, recruitment, loss time, and especially in student achievement (Andrew 2009; Carroll & Foster, 2010; Darling-Hammond, 2003; Guarino, Santibanez, & Daley, 2006; Ingersoll, 2002). One thousand teachers leave the profession every day and another thousand change schools pursuing better working conditions (Alliance for Excellent Education 2005; Shockley, Guglielmino, & Watlington, 2006).

It is no secret that there are many other professional opportunities for these students to earn greater salaries and obtain jobs of higher status. These issues make it challenging to ensure that the experienced and the best teachers are teaching. We know that many new and young inexperienced teachers leave the teaching profession within five years as reported by the Alliance for Excellent Education (2005) and the National Commission on Teaching and America’s Future (2007). Even if the attrition of teachers may have recently decreased due to the current recession, it is in our nation’s best interest to gear up for requiting new teachers with a new set of qualification to teach the current and future student population. It is expected that an additional 140 million new Americans will be added to the United States population by 2050 and 50 million of these new individuals will be U.S. born children or grandchildren (Passel & Cohn, 2008). We have millions of first generation students entering our public schools now, each year, and in the near future. Having a good teacher is an important key to student success in school and all our children deserve one.

New teacher mentoring programs have been beneficial, but still newly trained teachers are leaving the profession, which suggests there are other serious issues (Alliance for Excellent Education, 2005; Dill & Stafford, 2008; Kopkowski, 2008) One problem is that new teachers are not fully prepared for the reality of working as a classroom school teacher, even with many hours of classroom observation, student teaching one semester, and completing the courses needed to earn a degree and pass state certification exams.

The current teacher certification model and recruitment is not working and it is a serious education issue. The models need to change. One large untapped resource of teacher candidates’ to groom are the education paraprofessionals (Genzuk & French, 2002; Martz, 2006; Smith, 2003). Recruiting the education paraprofessional to become a classroom teacher has been largely overlooked in the United States. There are a few state programs that offer financial aide to paraprofessionals, such as Texas, California, North Carolina, South Carolina, Louisiana, Florida and others (Smith, 2003) although these and other states have cut-back on financial aide or cease funding altogether due to the recession that began in 2008.

Paraprofessionals are an important work group that can provide a rich market of teacher candidates with cultural diversity and prior work experiences that have prepared them to be successful teachers. Even with an uncertain economy, the need for highly qualified teachers and teachers that will stay in the classroom teaching is an important concern across the nation. The United States population is growing and the demographic profile is changing requiring the need for a more diverse teacher work force.

History of Access to Success Program

In 1994, the School of Education in collaboration with the local independent school district and the local community college developed the Access to Success program. Initially a local insurance agency and some university contributors donated $10,000 to jump start the program.
Three years later, the Texas Legislature passed legislation to assist instructional aides through tuition exemptions at state funded colleges and universities. This funding along with generous grants of money by the Greater Texas Foundation to the university created excellent opportunities for these instructional aides to become certified. Unfortunately, all Texas state and the foundation’s funding has ended due to the state and national economic recession. We hope to secure additional funding in the future for this important program.

The premise of this program was that education paraprofessionals would know what they are getting into and not likely leave the profession than a certified teacher without prior education work experience. The concept of providing routes to a Bachelor’s degree and teacher certification for these individuals suggested multiple ways in which it made sense to pursue gaining financial and state support for the effort. As stated elsewhere in this presentation, besides the obvious benefits to the individual, schools stood to gain certified teachers who were more diverse, more devoted to the career due to years of experience and committed to the local community. This program could be one contribution to stemming the tidal wave of teacher drop outs.

**Research**

*Methods and Procedures*

This research investigated if education paraprofessionals with education work experience, teaching certificates, and degrees have greater teacher retention and less teacher attrition rates than teachers who did not have prior education work experience. An extensive literature review was conducted and an alumni survey was administered during July 2010. The survey was disseminated to approximately 2,790 UH-Victoria School of Education and Human Development (SOEHD) alumni to determine which factors and/or characteristics contributed to retaining teachers. Three hundred four surveys were returned when this data was compiled, yielding an approximate 12% response rate. In addition, the researchers collected case studies.

**Research Questions**

This investigation sought to answer the following two research questions:

1. What are the teacher retention rates of alumni without previous experience in the public schools who become certified teachers through University of Houston-Victoria versus the Access to Success students who graduate and become certified teachers through University of Houston-Victoria?
2. What impact does graduating with a university degree and obtaining teacher certification have on the Access to Success alumni? His/her family? His/her community school?

**Limitation of Generalizing Results of Survey**

The survey results are dependent on the 304 surveys received as of the date this data was compiled during the fall of 2010. 2,790 alumni over the previous 15 years were mailed surveys. Twenty-five percent (59/239) of the Access to Success program completers responded to survey, while the 10% (244/2551) alumni not receiving Access to Success funds, 244/2551 responded. Total response rate to survey was about 12% as mentioned above.

Data was compiled into PASW 18 (Predictive Analytics Software) formally Statistical Package for Social Sciences (SPSS) for statistical treatment and descriptive comparisons. Since most of the data was categorical, frequencies are used to help understand relationships and test whether the variables are independent. Cross tabulation, Pearson Chi-Square, Likelihood Ratio, and Linear-by-Linear Associations were generated to compare Access to Success paraprofessional alumni to the non Access to Success alumni. The University of Houston-
Victoria School of Education and Human Development (SOEHD) total alumni respondent data was analyzed and then compared to the Access to Success scholarship recipients.

**Summarized Selected Results**

*Gender*

There were gender differences between the Access to Success alumni and the alumni that did not receive funding. There was a significant association between gender and Access to Success alumni, with a Pearson chi-square value of 7.194, 1 degree of freedom, and 𝑝 = .007, but this was due to fewer males in the alumni that did not receive Access to Success funding and no males in the Access to Success group. The majority of the alumni in the non-access to success group were females.

*Ethnicity*

There were significant ethnicity differences between the two groups of alumni with a Pearson chi-square value of 14.982, 5 degrees of freedom, and 𝑝 = .010. The Access to Success group had more Hispanic and Black Non-Hispanic alumni than the alumni that did not receive scholarship funds.

*Years of Teaching*

There was a significant difference in the educator years of teaching between the Access to Success alumni and the non Access to Success alumni. A Pearson chi-square value of 12.758, 5 degrees of freedom, and 𝑝 = .026. The Access to Success alumni had more than expected counts in the 4 to 7 year range and the non Access to Success alumni had less than expected.

*Length of Time Participant Foresees Themselves as Educators*

There was a significant difference between the Access to Success alumni and the non Access to Success alumni on how long they foresee themselves as an educator. A Pearson chi-square value of 6.523, 2 degrees of freedom, and 𝑝 = .038. An interesting difference in expected counts was revealed in the cross tabulation. The Access to Success alumni had less than expected counts as a life-long educator than the non Access to Success alumni. A possible explanation is that the paraprofessional alumni is older when seeking certification and may be retiring earlier than the non Access to Success professional. This difference could be investigated in future research.

**Case Studies with Students Involved with the Project**

Approximately thirty students were identified as possible participants to be included in the multi-case study. Of this group, five students were able to participate and were interviewed in depth. The students were given several basic questions to keep the data as consistent as possible, but each was allowed to elaborate freely on any of the aspects of the program he/she wished to discuss.

Background information on case study participants:

- All participants were female
- Three white, one Hispanic, one Black
- Ages: One, age 41-45; one, age 46-50; three, age 51 or over
- Four married; one widowed
- Number of children: One has 4 children, two have 3 children, one has 2 children, and one has 1 child

All the subjects in the case study felt the Access to Success program allowed them to receive a degree which would not have been possible otherwise. Each reported very limited monetary funds in their family budget and at the time, dollars for anything extra including education was just not a possibility. In addition, each reported she had a very strong family support system, Each of the subjects did feel that she could not have been successful without both the monetary
support from the program and family support. Families stepped in to provide child care, household assistance and morale support. Each student reported that working full time, taking several courses each semester as well as having a family proved to be quite a task. However it did not prove to be a greater task than each could conquer. Each was able to complete her degree in remarkable time with many taking no longer than traditional students. Each subject reported that her family’s lifestyle has improved and stress from tight budgets was lightened. Overall, all the information gained from the case studies was very positive as the Access to Success program was very fruitful for all who were in the program.

Conclusions & Significance

Education paraprofessionals have been overlooked and under recruited by many education preparation programs and by school districts. Our results show degreed certified education paraprofessionals and traditional certified degreed teachers have significant differences in years teaching, age, gender, and ethnicity. Paraprofessional educators have community ties and are likely to be teaching in the community where they live, they have greater multi-cultural diversity, and they are qualified teachers that stay in the classroom longer than the traditional certified teacher. It takes several years for a teacher to gain experience to be effective.

If 50 percent of new teachers are leaving within five years in the profession, the education quality of our children is diminished with new less experienced teachers in the classroom every year. Selecting teachers with specific attributes (Dill & Stafford, 2008) such as prior education work experience will likely stay in the classroom and make an impact. This research indicates the degreed certified education paraprofessional is a solid financial investment for our nation, our states, and our schools with the bonus of employing a teacher with prior education work experience and a teacher who is committed to teaching.
References:
Protective Cultural Factors Fostering Academic Resilience in “At-Risk” Mexican American Teenage Girls

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Abstract

This paper is based on a nested case study of a small sample of Latina teenage girls from a mid-sized town located along the Texas-Mexico border. These girls had multiple at-risk characteristics for academic failure, and yet, were succeeding despite challenging experiences and conditions in their lives. Protective factors promoting academic resilience described in this paper are grounded in case study data emphasizing a need for more qualitative research studies examining the complex interplay of multiple risks and the “person-environment interactions that make vulnerability or resilience” (Garmezy, 1996). Cultural factors and the process of identity self-construction (Polkinghorne, 1988) are emphasized in discussion of the findings.

Keywords: academic resilience, protective factors, Latinas, teenagers, at-risk, culture

Demographic shifts in the United States over the past 50 to 60 years have impacted many institutions throughout the nation; however, one of the most affected has been our public school system. Whereas in the 1950’s, African Americans, Hispanic Americans, Asian Americans, and Native Americans comprised of only 15% of the under-18 age population; collectively, these groups make up 40% of American children and youth, and are expected to reach half or more of the under-18 age segment within another generation or so (Garcia, Jenson, & Cuellar, 2006). Of these racial/ethnic minority groups, Hispanics are the largest and fastest growing group in the nation (President’s Advisory Commission on Educational Excellence for Hispanic Americans, 2003), and it is anticipated that the under-18 Hispanic population will increase to over 17 million by 2020 (U.S. Census, 2003).

Responding to these extraordinary demographic changes, researchers have focused on learning more about the wide disparities that exist between White students and racial/ethnic minority groups in U.S. schools (Fine, 1986; Oakes, 1985; Suarez-Orozco, 1987; De la Rosa & Maw, 1990; Fry, 2003; Garcia et.al., 2006). Among all groups, Hispanics have had the highest high school dropout rate since 1972 (Alfaro, Umaña-Taylor, and Bámaca, 2006). In 2006, the National Center for Educational Statistics (NAES) reported that 43% of Hispanic immigrants dropped out of school. As a result of these alarming trends and statistics, a growing body of educational research on the Hispanic/Latino population has emerged.

My interest in the topic of academic resilience stemmed from my experiences as a high school English-Language Arts teacher in south Texas at a large, urban school district located less than 10 miles from the Texas-Mexico border with a 98% Hispanic/Latino student population. I learned that most of my students were living on or below the poverty line, and had been identified as “at-risk.” About 35% of my students consisted of students who were seasonally employed as migrant farm workers in northern states or who were recent immigrants from Mexico with varied levels of formal and informal schooling in their native country, and little, if any, English proficiency. Migrant students regularly trickled into my classes in late September through mid-October and moved “up north” in March and April to work as field laborers with their parents.

The majority of my students were Spanish native speakers who struggled with English, and had anywhere from 1st to 6th grade reading levels in their second language. Many of my students lived in single-parent households, and it was not unusual for many to live with extended family members, such as grandparents or aunts and uncles in multigenerational homes. About 15% were diagnosed as having learning disabilities, such as attention deficit disorder, dyslexia, or hyperactivity. Many of my students, mostly males, had records of truancy, disruptive behavior, and violence, and were considered “discipline problems.” These particular students were, more often than not, gang members. Some had criminal records and were periodically assigned to
juvenile detention centers, bused to alternative schools, or sent to boot camps. Typically, by the end of each year, five or six girls in my classes became pregnant, or dropped out of school because they had given birth to a child. Some were married and ended up living with their parents, boyfriend’s parents, or their in-laws, who were also poor, and had little, if any, formal education. Like many high schools located in impoverished areas across the nation, I learned that some of my students were homeless, while others struggled with parents who were addicted to drugs and/or alcohol. Some of my students were being raised by their extended family members because their parents were incarcerated, or they simply abandoned them as infants or young children.

Despite ubiquitous stressors in the lives of most of my students, however, every year there were students who demonstrated academic resilience. I wondered why some students with similar backgrounds of their less achieving peers thrived academically and under terribly adverse conditions, while others seemed doomed to fall through the cracks. As their teacher, I wanted to know what I could do to foster academic resilience with all of my students. Today, as a university professor of undergraduate education students in the same region where I began my teaching career, I continue to be intrigued with this topic.

The Study

The purpose of this study was to examine ways that teenage Latina girls cope with ubiquitous stressors and conditions in their lives that are commonly identified as at-risk indicators for academic failure as they also experienced academic success. The border region in south Texas where the study takes place has a 90% Hispanic/Latino population with 35% of the population under the age of 17. The median family income for a family of four is $32,203. This is well below the state average of $60,609 (U.S. Census Bureau, 2010). Case study participants were chosen based on participant observation, teacher interviews, responses to a questionnaire, and general receptivity to being part of this study. My goal was to document the girls’ experiences in their own words during their transition year from middle school to high school—the ninth grade. By documenting their personal struggles and strategies for academic success, and generating greater awareness about risk and resilience, I looked forward to what I could discover in the girls’ stories that might provide educators with insights and ideas for fostering personal and academic resilience.

Several questions guided my research including the following: 1) What role does school play in the lives of the students in this sample? 2) How do the students view themselves and their respective places in the world? 3) To what extent are these students’ self-concepts connected or related to school success? 4) To what extent are the students’ self-concepts shaped by their social identities at school, at home, and with peers? 5) How do the resilient students in this sample cope with adverse life events and conditions that enable them to retain academic competence?

Risk and Resilience

Half of all adolescents are at risk on the basis of conditions such as poverty, single parenthood, and limited English speaking in the home (Pallas, McDill, & Natriello, 1989). Research on success of at-risk students has been undertaken in order to identify protective factors or other conditions or contributors to promoting resilience. Resiliency is the process of coping with disruptive, stressful, or challenging life events in a way that provides the individual with additional protective and coping skills than prior to the disruption that results from the event” (Richardson, Neiger, Jensen & Kumpfer, 1995). Disruptive life events may consist of a single event of an individual, a few minutes of disruption, or years of struggle.
In this study, I focus on academic resilience as described by Morales and Trotman (2004), as “the process and results that are part of the life story of an individual who has been academically successful, despite obstacles that prevent the majority of others with the same background from succeeding” (p. 8). Elsewhere, Morales (2008), also maintains “academic resilience is defined solely by exceptional academic achievement in the face of adversity. As a result, discerning levels of happiness are not a primary focus of academic resilience research; rather, the mental states of academically resilient individuals are” (p. 152).

Method

I utilized the case study method (Stake, 1994; Merriam, 1988; Patton; 1990) for this qualitative study, that may be described as a “nested case study” (Richardson, Casanova, Placier, & Guilfoyle, 1989) insofar as I initially examined the largest unit in this research—the school, as an organization including the instructional programs offered there, student, faculty and staff demographics, and cultural and institutional norms and characteristics. Nested within this larger unit were case studies of particular English-Language Arts classrooms where I was allowed to observe and interact with students and teachers. Finally, nested in these particular classrooms were the smallest units for observation--the single case studies of resilient students who were identified as having multiple at-risk characteristics, and yet were experiencing school success and exhibiting academic resilience.

Participants

I used purposeful sampling in order to determine potential information-rich cases (Patton, 1990) for this study. Selection was based on several criteria: first, by having multiple at-risk factors as identified by De la Rosa & Maw (1990) including race/ethnicity, living in a poor household, begin raised by a single parent, low parent education or income, and being home without parents for extended periods of time; second, being identified as a high achieving student by their English teacher; third, having a history of academic achievement (i.e., consistently maintaining a high GPA throughout their years in school); and last, being a ninth grade student.

Procedures

After IRB approval, formal approval to gain access to the high school through the district superintendent, informed consents from the principal, parents, and teachers, and student assent approvals, I began the research that occurred during a nine-month academic year (from September to May). Four methods of data collection were used to develop the nested case study including participant observation, qualitative interviews, document analysis and questionnaires. Participant observation and qualitative interviewing were major sources for data collection, whereas documents and questionnaires played minor roles. By using open-ended informal conversational interviews and in-depth guided interviews for data gathering, I was able to capture nuanced and detailed life experiences that helped me to craft triangulated single case studies of three subjects.

I formally interviewed each subject three times during their freshman year in high school. Each in-depth guided interview lasted from 60 to 90 minutes. I also interviewed their English teachers once per semester. These interviews lasted 45 to 60 minutes. Finally, I conducted one guided interview with each case study participants’ parent, and these interviews also lasted 45-60 minutes. I observed the girls in their English Language Arts (ELA) classes once every two weeks for one hour for three and one-half months in the fall semester. In the spring semester, I observed less often, and focused on interviewing the various participants, transcribing data, and analyzing data.
Data Analysis

Following I.E. Seidman’s (1991) data analysis process, which includes creating profiles and vignettes, making thematic connections, and interpreting and analyzing the material, allowed me to report what I saw, heard and felt. Multiple voices were then included in vignettes and profiles (Seidman, 1991) crafted and organized in the participants’ own words, thus reflecting each case study participant’s consciousness or mental worlds. Pseudonyms were used for all case study participants and the name of the town and the school in the write-up of the case study. Given that displaying the entire nested case study is beyond the space limitations of this article, what follows is a brief description of town, the school, and the three Latina adolescent girls in the study.

Data Presentation

This study took place in deep, south Texas. Amistad City is the county seat of Arrowhead County and has an estimated population of 77,100 residents (U.S. Census Bureau, 2010). The city is twenty miles north of the Texas-Mexico border and is well positioned geographically to become a major player in the south Texas border economy. U.S. Census (2010) estimates indicate that 89% of Amistad City’s residents are Hispanic/Latino, and the average family of four lives on an annual income of $35,845—a stark contrast to the national average of $60,609. Twenty-nine percent of families live below the poverty line in Arrowhead County, while 37.3% of these poor families have children under the age of 18. The national average of families living below the poverty line is 11.3% with 17.9% of these families have related children under the age of 18.

At the time of the study, Amistad City High is a Title 1/Chapter 1 school, meaning the district receives federal funding for compensatory education services earmarked for at-risk students in disadvantaged, low-income areas. During fieldwork, I learned that 77.3%, or 1879 of 2454 students at this school, were labeled “economically disadvantaged,” and almost 26% were classified as limited English proficient (LEP). However, poverty and poor English did not quell the desires of the majority of seniors from planning to go to college (80.7%). Of this group, 45.1% had advanced seals on their transcripts indicating their acceptance to either a community college or a university. Amistad City High School was recognized for its strong emphasis on academic excellence. It had a reputable theater arts department, dance team, and University Interscholastic League team (U.I.L.), students who complete and succeed every year in extemporaneous and dramatic speaking, writing, science, and mathematics competitions at district, regional and state levels. In fact, in the year I conducted fieldwork, the school took pride being chosen to host the annual state conference for the science team. The Fighting Coyote Band ranked among the top twenty in Texas, and many students took the opportunity to take Advanced Placement (AP) courses. This curriculum included courses in calculus, history, science, economics, English, and Spanish.

The racial distribution among students was 94.8% Hispanic/Latino, 5.0% White, 0.1% African American, and .01% identified as Other. This distribution is comparable to other local schools. A breakdown of students enrolled by program in the district report showed that 56% were placed in career and technology education, 25.6% were enrolled in bilingual/ESL education, 15.0% were identified gifted and talented (GT), and 9.4% took special education classes. As in most large U.S. schools, students were segregated socially due to programs, academic tracks/ability grouping, and class divisions.

Narrowing the study is essential in case study research (Patton, 1990; Merriam, 1988); thus, I chose to gain access to three ninth grade ELA teachers. As a former high school ELA teacher,
myself, I knew they were more likely to provide opportunities for their students to reflect about and share their own experiences through literacy activities such as reader-response, writing assignments, and class presentations. I expected to learn about students in a naturalistic sense by paying close attention to the ways that students make sense of, connect with, and/or resist literature and literacy activities. Additionally, writing assignments in ELA classrooms illuminate students’ worldviews, revealing much about their self-concepts and academic abilities. Negotiating my role as a participant observer would allow me to casually get to know students and begin to narrow down my choices for case study participants after a few months of fieldwork.

After three months of fieldwork as a participant observer in the various classrooms, and several discussions with their teachers, I selected three potential case study participants—Mary Palacios, Lupita Garza, and Rachel Longoria. I scheduled home visits with the student and their parent(s) at their respective homes, explained the purpose and procedures of the study, and asked for their consent to participate. After signed consent and assent forms were retrieved, guided interviews for participants and parents were scheduled and conducted. Mary, Lupita, and Rachel had several things in common. All were Latinas of Mexican descent, living in a poor/working-class household, being raised by a single, divorced, or married but separated, parent, with a high school degree or lower, and were often home without parents for extended periods of time. The following are brief descriptions of the girls extracted from their crafted case studies.

**Mary Palacios**

A thin, petite, girl with light brown hair and a cheerful disposition, Mary described herself as a twin who loved dance and drama told me she wanted to be “someone high in life.” She lived with her divorced father who was in his late 30’s and who was recently engaged to be married, her twin sister, younger brother, her father’s fiancé, and the fiancée’s daughter in a modest, three-bedroom rented apartment. Mary told me her father was “more stable” than her mother, so she and her siblings decided it was best to move in with him after living with their mother most of their young lives. When I asked Mary what she meant by “more stable” she indicated that her father had a more secure job and her mother did not. Also, she said her mother was “not as mature or responsible” as her father. “He is much more responsible for taking care of us than my mom.” Mary’s mother was “not happy about it,” but Mary said, she had to do what was best for her and her siblings. Mr. Palacios worked at a hardware store where he was recently promoted to assistant manager. He described himself as being “old-fashioned” and believed in setting curfews, bedtimes, and rules, and said that his relationship with Mary and his other children was “a close one.”

Mary had gone through several traumatic life events in her life including being a sickly premature baby who was on the brink of dying of pneumonia who “lived in the hospital” for most of her first year of life. Additionally, just two years before the time of the study, she had been hospitalized for months, dropping down to just 60 lbs. after being diagnosed with cat scratch fever. Mary described her home life as stressful when her parents were headed toward getting a divorce and “getting used to the idea” that both were engaged to marry other individuals. She admitted it was sometimes “very hard” to concentrate on her schoolwork. Mary wasn’t always enrolled in more rigorous classes until now.

In elementary, I had good grades. And then, in junior high, I slacked off a whole lot with Cs and Bs. And then, in high school, it’s gone up. Now I’m just aiming high for a little award in dance team, the U.I.L. speaking team…. I just have to push myself.
Although she didn’t always feel like studying hard, she always “forced herself” to do her homework by thinking: “Okay, what do I want to do when I grow up? Do I want to say ‘paper or plastic?’ or do I want to have my own office with ‘Mary Palacios’ on my door? So I get to thinking, “Okay, I better do my homework.” This year, as a freshman at the high school, Mary sought out opportunities to get involved in extracurricular activities, and she to enroll in Honor’s courses for the first time. “I want to be someone important in life, and I enjoy being on stage.” Mary made the dance team, the drama club, and the speech club, and stated that “I know it sounds conceited, but I work pretty hard. That stage…. I like being there.”

**Lupita Garza**

Another resilient student in Mrs. Chavana’s Honors class, stood out. She was a fair-skinned freckled girl with curly brown hair and large hazel eyes who confessed that all she wanted was “a perfect life.” Introducing Lupita Garza:

I’m growing up, you know? I have problems on my own in the outside world. Then I come home and still deal with this! [parents who argue a lot, father’s violent outbursts]…. I would think, for me, that I’d rather they not be together because then, I would not have too much troubles…. But then again, it’s very hard to earn respect from the outside world when there’s not two parents in the house. You know, it’s hard! And then, your friends, you know, they talk, “My father, my mother”….so it’s pretty hard to get into those conversations when you don’t even have a father at home.

Lupita Garza lived with her mother, Guadalupe, who was recently separated from Lupita’s father, Jaime. Her father was the source of great strain in Lupita and her mother’s relationship because Lupita didn’t have a positive relationship with her father, who she viewed as lazy and cold. Mr. Garza, who was clinically disabled due to rheumatoid arthritis, had a history of being physically abusive to his wife and older daughter, Mari. According to Lupita, he had never abused her because her older sister always protected her. Lupita’s mother Guadalupe, in her mid-forties, owned and operated a fruit stand at a flea market located in the outer part of Amistad City. She and her husband were married, but separated at the time of this study. Although Mr. Garza was not living at their home, he was at the fruit stand every day and tended the cash register when Mrs. Garza needed to run an errand or go home for a while. Guadalupe described her daughter affectionately in Spanish which I translated to English:

My daughter is very intelligent, very beautiful and very…. I don’t know, I think she has all the characteristics to be successful. I have told her, “You are going to have everything you ever wanted, if you want it.” I have raised them [Lupita and her sister, Mari] in this style. I have always said, “There are no limitations.” Let them be accustomed to the good things. Even though we must sacrifice…. But they should accustom themselves to the good things. That way, they do not accept a lower quality of life. This is my way of thinking.

Lupita was enrolled in Honors and AP courses at Amistad City High. She had a consistent history of being in the more rigorous courses and earning high grades throughout her schooling. Her aspirations for “the perfect life” would be actualized by “going to college.” In fact, as a freshman, she was already seeking out information.

I want the perfect future, and a perfect family. I have my own mental picture (laughing). It’s cause [sic] I’m a real perfectionist. I want everything to be right…. I definitely want to go to a university…. I have my eyes set on University of Texas at Austin…. My mom is like, “Why do you want to go to Austin when
Amistad City University is a good school?” I’m interested in U.T…. It’s between marine biology and biology. I love science…. [University of Texas] already sent me everything about biology. They sent me everything [and] anything I need.

Rachel Longoria

A tall, slender girl with straight, shoulder-length brown hair and large, brown eyes caught my attention in the Advanced Placement (AP) English class as the intelligent, critical thinker in the group. Rachel Longoria, my third case study participant, described herself as:

…. very out-going, open-minded, and I work a lot…. I’m nice and helpful too. I’m talkative; sometimes, I go overboard a bit…. I like helping people with their problems when I should stay away…. It’s just that sometimes I get involved in other [people’s] problems that I really don’t look into mine…. I don’t really go out and tell everybody my problems. I just think them out… I just think for myself.

Her English teacher, Mrs. Chavana, observed:

I’ve never seen her bogged down about anything, so I imagine she’s going to bounce back from anything that comes her way because she’s very strong about that, you know, and she’s not hesitant about asking questions…. although she is very selective about her questions…. She dealt with it pretty good…. There was a time where she would come up and say, “I want to buy those [designer] jeans” and all that stuff. And I said, “Sorry, I ain’t got all that money to buy that.” It’s so expensive! And so she accepted it.

Rachel’s mother, Minerva, was in her mid-fourties, was separated from her husband and had been raising her daughter alone for quite some time. Rachel’s father lived more than 200 miles away. Mrs. Longoria explained:

We’re separated…. just separated. It’s been two years, no, almost three, since I’ve been working at William’s Construction [and since he left]. It’s just hard to adjust because you start thinking, “Gosh, what’s going on?” (laughs). And then you ask him to just tell you the truth, “What’s going on?” And they keep telling you that they still love us, so what can you do? You just accept it and you go on.

Financially, Mrs. Longoria said the family was “better off” when her husband was home and had his own business, a small convenience store. “He had the store and we were doing better. Of course, I didn’t have to work, really. Now, I have to work!” Unfortunately, the store went out of business, and Mr. Longoria was out of work for several months before he found a job more than 200 miles away as a security guard supervisor for a bank branch. Although he asked the family to move there, Mrs. Longoria was unwilling to make the move because she didn’t want to live too far away from her extended family. Mr. Longoria’s move and the financial constraints on the family did not seem to affect Rachel emotionally or academically. Mrs. Longoria stated:

She dealt with it pretty good…. There was a time where she would come up and say, “I want to buy those [designer] jeans” and all that stuff. And I said, “Sorry, I ain’t got all that money to buy that.” It’s so expensive! And so she accepted it.

Mrs. Longoria described her daughter’s home life as “family oriented” and her relationship with her daughter as a “good one…. It’s a close and a fairly good relationship.” She also described her parenting as “real strict and real old-fashioned” because that is the way that she was raised.

I tell her, “You should be lucky because my family was really poor.”” I mean, we were thirteen [children] and only my dad worked, so I tell her to “be happy!”
When I asked Rachel about her plans for the future, she said that she would “probably go to college” but that she did not want to go to any colleges in Texas.” Her mother was supportive but also said that Rachel was going to have to figure out how to make it possible, to which Rachel replied, “I have just found that if you plan things out it really doesn’t work that way. So I guess my philosophy is that if something happens, you deal with it…. Just take it as it comes.”

Conclusions and Discussion

As previously mentioned, I chose to focus on academic resilience as defined by Morales and Trotman (2004), as “a process resulting from life stories of individuals who have been academically successful, despite obstacles that may prevent the majority of others with similar stories or backgrounds from succeeding” (p. 8). Specifically, my research focus was to study factors that determine academic resilience in three “at-risk” teenage girls with similar life conditions and backgrounds as they managed to experience academic success despite disruptive, stressful, or challenging life events.

This naturalistic, qualitative study reveals the complexity of academic resiliency as a process as it explores the complex interplay of risk factors and identity construction in particular cases over time. By crafting profiles from various data sources (Seidman, 1990), I generated 5 to 6 emergent themes from each case study participant’s data. These themes were initially categorized into two broad categories—actions and conditions facilitating academic resilience. As I compiled a comprehensive list of themes across the three case studies, these broad categories were refined into two more specific categories—beliefs and dispositions (see Table 1).

Based on my own life experiences, research, and literature on this subject, I expected the girls to have personality traits and general dispositions towards academic success. These ideas were affirmed in the results of this study. I also predicted that school would play a significant role in their lives, and it did. All three girls indicated that their talents were acknowledged and appreciated at school. School played out as a positive environment where they could temporarily escape the ubiquitous stressors of their home lives such as dealing with divorce or separation, financial problems or instability, abandonment, disconnection, or neglect by at least one parent, staying home alone for hours at a time, and in Lupita’s case, witnessing verbal and physical abuse from her father toward her mother and older sister.

Consistent among the girls’ experiences was a sense of pride in their involvement in extracurricular school activities and in taking Honors and/or Advanced Placement (AP) courses. The girls had positive self-concepts that were substantially connected to their successful academic and school-related experiences. All three girls had aspirations for attending a university and earning a minimum of a bachelor’s degree. They all dreamed of becoming professionals and believed they could succeed beyond high school. For example, Mary didn’t know what she wanted to do in life, but she knew she wanted to have an office with her name on the door, and that visual was a powerful incentive for her to study hard and to do her best in school. Lupita was interested in becoming a biologist or a marine biologist, and Rachel desired to leave Texas after high school to attend an out-of-state university. She and the other girls viewed higher education as the key to a better, and more stable, future. When I asked their parents if they thought their daughters could accomplish those goals, all of them said they could, but all three parents indicated they would have to do it on their own since they didn’t have the financial means to assist them in paying for college. They acknowledged that their daughters would have to make it happen. As Mr. Palacios stated,

I have no doubt my daughter can make it at a university one day, but she knows that it will be all up to her. That’s why I’m so strict with her and her sister.
I wish I had had that opportunity to go to college when I was their age, but it didn’t work out that way. I had to work to help support my family.

The case studies suggest that home, school, and peer interactions are a critical component in the development of a positive self-concept. For adolescents who have multiple risk factors, “these person-environment interactions make vulnerability or resilience” (Garmezy, 1996). At home, all three girls felt they had at least one, responsible parent in their lives—a parent who was present and who took care of them. They each had one active, or primary, parent who expected them to achieve academically and have a better quality of life one day. The parents who participated in this study had marked differences in their parenting styles, yet they all interacted with their daughters every day, in ways that made the girls feel loved, cared for, and protected—even though none were very outwardly affectionate or expressive. As Rachel’s mother, Mrs. Longoria, remarked, “Once in a while, she comes and says, ‘Mom, hug me!’ and she wants me to hug her and stuff (laughs)…. Settle down, girlfriend!” I tell her. We didn’t grow up with a lot of hugging.”

The resilient Latina students in this sample coped with adverse life events and conditions and retained academic competence in a particular manner that worked for each of them. For instance, although the three girls had the shared experience of having stressful home lives, they were able to adapt and accept situations that were beyond their control to various degrees and in different ways. For instance, although Lupita adapted to having an abusive father, she had problems with the accepting part because he was verbally and physically abusive to her mother and her older sister. Lupita shared that she was disappointed and angry that her father did not fit the traditional role of a father who should be the provider of the family, and yet he demanded to be treated and respected as such. Hers was a constant struggle to understand why her mother allowed her father to dictate the rules of the household when he so clearly did not deserve to do so. Lupita said her mother was “afraid a lot” and explained that her mother accepted him because this was often just a part of being married. “My mother cannot see herself as a happy divorced woman,” she observed, “and it’s hard, but what can I do? I have to accept it.”

Rachel took more time in seeking opportunities to learn and to grow because she needed more time to reflect before making important decisions. Finally, Mary coped with personal problems differently than Lupita and Rachel, who preferred to work out solutions to their problems on their own. Instead, Mary tend to mask her feelings behind her “perkiness” unless the problems became too overwhelming, in which case, she would talk to her twin sister or a close friend for emotional support.

Most of the general themes emerging from parent data were consistent with findings in the literature which identifies three general protective factors within families of resilient children such as caring and support, high expectations, and encouragement of children’s participation (Bernard, 1991). Although most of the parental dispositions identified among the three parents in the study fell into those main three categories, four themes did not. These include: 1) stress close family ties and unity, 2) do not buffer stressful events or situation for their children, 3) instill traditional, cultural values in their children, and 4) model coping styles (see Table 2).

Remarkably, these parents continued to stress close family ties and unity despite their respective marital or post-marital difficulties. The fact that one parent is divorced, another has a long-distance marriage, and the last parent is separated but remains in an abusive marriage, did not give the girls license for letting go of their relationships with their less caring or responsible parents. All three parents felt it was important for the girls to maintain a relationship, even if it was minor, with their less present parent. In addition, stressful life events and /or circumstances,
whether financial, marital, familial, health-related, etc... were never kept from the girls, despite the potential stress and anxiety these problems may have caused. Although the parents acknowledged they all had experienced ups and downs in their family lives, they all indicated that this was “a normal part of life,” and keeping their daughters from knowing problems that affect the family was a bad idea. As Mrs. Garcia described her daughter’s childhood—“normal as any home, with its highs and lows and everything, but just what is a life journey.” The parents in this study attributed their respective daughter’s maturity for their ages as resulting, in part, because of their inclination to be honest and open about their family issues, especially during difficult times and stressful life events.

Another common thread among the parents is that they each instilled traditional cultural values in their children. They raised their daughters to respect and comply with traditional Mexican American family life which has two basic dimensions around which the interpersonal patterns within the family are organized. According to Murillo (1976), “the first is respect and obedience to elders, and the second is male dominance” (p. 21). Each of the girls’ relationships with their father was different; nonetheless, they all shared something in common. They all loved their fathers. Whether “old-fashioned” and authoritative, like Mary’s father who did not like to show his affection to his daughters, didn’t allow her to date, or go out with friends unsupervised, and ran a strict household; or working in a city 200 miles away and rarely visiting, like Rachel’s dad; or prone to verbal and physical violence, like Lupita’s father; the girls articulated in one way or another, that they all accepted the way things were between their parents despite less than ideal situations.

Murillo’s (1976) depiction of the traditional Mexican-American wife-mother is useful here in Lupita’s and Mary’s case studies. He states that the “wife-mother is supposed to be completely devoted to her husband. Her role is to serve the needs of her husband, support his actions and decisions, and take care of the home and children” (p. 21). Mrs. Garza illustrates her devotion in the following:

I tell them, look mijitas, your father is good. Your father has never gave [sic] you a bad example. Your father is sick and he can’t give you what you would like him to give you. And he’s not a drunk. He doesn’t like that. He doesn’t have any vices at all, nothing like that.... We’re just working people and we work and that’s all.

Lupita’s way of coping with her parents’ problems was to psychologically break away from her father. This was a way of maintaining her emotional well-being. Berlin and Davis (1989) define this as a process of breaking away from the family focus on the dysfunctional behavior as adaptive distancing (cited in Bernard, 1991). Mrs. Garza, in turn respected Lupita’s decision to avoid Mr. Garza (a coping strategy she herself used), and recognized Lupita’s need to spend more time doing her schoolwork.

Rachel’s case study also revealed her mother instilled traditional cultural values as well. Despite the fact that Rachel’s father lived 200 miles away for over three years and visited less frequently than he used to, Rachel’s home life was “family oriented” in her mother’s words. Describing herself as “real strict and real old-fashioned,” Mrs. Longoria said she raised Rachel the way she was raised. Rachel dealt with dramatic life changes, such as her parent’s long-distance marriage “pretty good and on her own” as Mrs. Longoria explained, “because that’s the way we were all brought up. Like my mom and us, you know? So that’s what I taught her... And so, that’s what she does.”
Mrs. Longoria, like Mrs. Garza, exemplified the Mexican-American wife-mother to the extent that both women supported their husband’s decisions despite the emotional and financial burdens it placed on them, and the strain it caused their children. Having taken the brunt of the financial responsibilities of the household, and having raised her children alone over the past three years, Mrs. Longoria reflected:

Sometimes, I say, “I don’t know if I can keep doing this,” but then I say, “Hey, been doing it and I can do it.” But it’s hard. . . . I guess my husband’s never given me any problems, so maybe that’s one of the reasons he’s here [still married and part of their lives from time to time]. The only thing is that he’s gone, but he helps me a lot [financially].

**Implications for Future Research**

Polkinghorne (1988) contends that “self is a construction built on other people’s responses and attitudes toward a person and subject to change as these responses, inherently variable and inconsistent, change in their character” (p. 150). By synthesizing diverse social responses among the people in their environment, each of the girls developed a “resilient self” among the many selves that formed their respective self-identities. In this study, the girls’ primary parents’ everyday demonstrations of resilient behavior were related to traditional Mexican American family life (roles, responsibilities, acceptable behavior).

Whether the primary parents’ coping mechanisms were positive, appropriate, and/or healthy is beyond the purpose or scope of this study. However, this study reveals a need to explore protective cultural factors among culturally diverse students who find constructive ways to cope with new challenges, stressors, and risks that ultimately affect their academic performance in schools. By examining the behaviors of resilient students who have multiple at-risk factors and who experience academic success despite stressful and/or negative ubiquitous factors in their lives, parents and teachers may learn more about what they can do to foster resilient behaviors and dispositions in youths that can be developed over time. The study suggests a need for more research and professional development for educators on the subject of academic resiliency.

**References**


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<tr>
<th>Beliefs</th>
<th>Dispositions</th>
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<td>Believe they can succeed academically (positive self-concept)</td>
<td>Find a way to cope with stressful life events and ubiquitous factors that works for them</td>
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<td>Believe a close family is important</td>
<td>Reflect before making important decisions</td>
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<td>Believe in God and consider themselves to be spiritual or religious</td>
<td>Accept and adapt to situations that are beyond their control</td>
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<td>Believe they are responsible for their own academic success and failure</td>
<td>Expect a positive personal future</td>
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<td>(self-efficacy, internal locus of control)</td>
<td>See the “big picture”</td>
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<td>Believe that education is the key to a positive future</td>
<td>Optimistic about their future</td>
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<td></td>
<td>Have a “close” relationship with at least one parent</td>
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<td>Seek opportunities to learn and to grow</td>
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<td>Form positive friendships with like-minded peers</td>
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<td>Set short term and long term goals</td>
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Table 2  
Latina/o Parents’ Dispositions

- Do not buffer stressful events or situations for their children
- Have high, yet realistic expectations for their children
- Are present for their children when they need them
- Support their children’s dreams
- Value education
- Provide a financially stable home
- Set and enforce rules
- Expect their children to do well academically
- Instill traditional, cultural values
- Model coping strategies
- Communicate with their children regularly
- Show pride in their children’s successes and talents
- Stress close family ties and unity
Building a Ship Without a Rudder:
A True Story of Bottom up Leadership

Calvin F. Meyer
Dalton State College
Introduction:

Several years ago while entertaining the wisdom of assuming an administrative position in higher education, I approached a colleague known for her national involvement in Middle Grades Education. I asked why she had never considered taking on an administrative position in her university and her reply, “Oh no, I have no interest in that, leadership in a college is like ‘herding cat.’” I took my opportunity to accept the Program Directorship of Graduate Elementary/Secondary Education in a major state university, then the Chairmanship of a larger department in a regional state university and most recently assumed the role of Dean. Casting no dispersion on some outstanding faculty with whom I’ve had the privilege of working, I’ve found my colleague was uncannily on target in her characterization of higher education leadership. The question I often pondered is why is it that way?

According to Wikipedia, “Herding cats” is an idiomatic saying that refers to an attempt to control or organize a class of entities which are uncontrollable or chaotic. Implies a task that is extremely difficult or impossible to do, primarily due to chaotic factors.” Given this, what are the “chaotic factors” within higher education that implies a task is extremely difficult?” I would like to answer this question from three perspectives: 1) Personal Experience, 2) Opinions of Other Leaders and 3) Dynamics Impacting Faculty Behavior.

Perspectives of Faculty Personalities from Personal Experiences:

Working with eight different universities over a 44 year career in Education, I would like to suggest one factor is the variety of unique personality characteristics among the faculty, all of whom I’ve had the privilege of working including:

- **The Ego:** This person is the first to make you aware of who they are, their professional experiences, the university they attended and the degrees they hold. While valuable information from which to gain the potential strengths and interest of the faculty, The Ego tends to exert their influence as superior to any other advice of the faculty. They may or may not be significant in assisting with tasks, but they often tend to hinder rather than support in that they don’t see it their role to assume tasks they consider not in line with their status.

- **The Bulldog:** This person makes it their charge to challenge any decision they consider of little to no value. The Bulldog fails to see the big picture and only has interests in what affects them personally. They have difficulty with the response of “No” feeling it their inalienable right to continually press for their demand regardless of the facts. The Bulldog often tends to be isolated into their own world in that they see little value in collaboration.

- **The Antagonist:** This person doesn’t have to have reason for causing turmoil within the unit. The Antagonist dwells on the trivial and will tie up meetings demanding followship into such trivialities. Far too often this person spends much of their time identifying what is perceived as policy, standard, and process in order to create confusion. They have little time to concentrate on the role assigned them. The Antagonist seeks to draw others into the fray behind the scenes and thus may create a group dynamic to thwart important initiatives.

- **The Teacher’s Pet:** Our childhood experiences have often scorned the teacher’s pet, resenting the hypocrisy of attempting to be privileged to win undo favor and be exempt from work others had to accomplish. This same characteristic is prevalent among faculty. The Teacher’s Pet makes it their role to woo favor with the higher levels of administration circumventing their immediate supervisor.
This person enjoys the power of exerting the name of higher administration claiming input from them that may or may not be real. Their energies are often spent catering to any role they can manipulate to win influence. Far too often, higher administration responds positively to the point of being blinded by the fact the Teacher’s Pet is not giving equal attention to the more mundane tasks of the department. Simply, this person feeds upon the backdoor approach to getting their way.

- **The Activist:** Be it political or personal, the Activist tends to wear blinders and views every issue through the filter of their own bias toward life. They are more than willing to accuse others of “insidious behaviors” if they don’t measure up to their own definitions of what is perceived as right. This person can be extremely dangerous as they are very aware of the language that can professionally harm such as “bias,” “prejudice,” “intolerant.” While living in a world and a profession that thrives on perception, often without regard to reality or facts, the Activist is more than willing to destroy to exert their own agenda.

- **The Extremist Practitioner:** With universities, most particularly Schools of Education, finding their role more and more prescribed by external regulatory agencies, the trend in is to hire retired teachers and administrators. While most live up to the expectation, they bring a high level of experience and expertise to the field of Teacher Education, some of these personnel tend to be extreme in their delineations between being a Practitioner versus a Scholar. The rationale for this trend is that it is assumed these faculty members bring an expertise of working through the regulations so many states are imposing on Education. The Extreme Practitioner is indeed often skilled in the practices identified as “quality practices.” They add an important dimension to a School of Education but some often fail to see the value of scholarship and their contribution to it. The Extreme Practitioner often forgets that behind every identified “quality practice” is research and scholarship initiated in the think tanks of universities. While pressing for Teacher Leaders and Researchers, this new trend seems to counter this. Thus, in establishing the mission of a university to be research oriented, Schools of Education may be losing their influence in preparing professionals. It is giving credence that teaching is simply a matter of becoming an Apprenticeship learning the trade prescribed by regulation. The Extreme Practitioner Faculty may have little loyalty to the overall mission of the university.

- **The Ideologue Scholar:** Contrary to the Extreme Practitioner is the Extreme or Ideologue Scholar who tends to give little value the realities of the P-12 classroom. The Ideologue Scholar tends to narrow any discussion to what they believe should be without regard to the realities of practice. There is little gray area for compromise. They tend to believe the university should mandate practice based purely on empirical research as they often interpret it. They can create controversy in that they overtly and publically criticize a school or a school district for its adoption of a particular curriculum approach to which they have issue. This puts the college administrator in a constant position of doing damage control.
• **The Armchair Quarterback:** Another trend Schools of Education are utilizing in hiring is employing former college administrators who have already retired, whom I call the Armchair Quarterback. They have passed their prime in productivity, but find the financial need to return, or simply need to overcome the missed action of the profession. In some instances, the higher administration uses the ranks of the faculty to demote administrative personnel. While this person comes in with the promise of being positive supporters, it isn’t long before they fall into the habit of questioning every decision of the acting supervisor. These Armchair Quarterbacks tend to resent every request made of them, if they don’t feel they should be so involved. They constantly remind others they are retired, forgetting the role they agreed to accept. They are often over sensitive and can be openly belligerent. They tend to attend to the minimal requirements of the job.

• **The Adolescent:** While this behavior seems so unrealistic to the ranks of higher education faculty, it does exist. The Adolescent can be skilled in so many ways but they tend to lack tact and will often speak from perception rather than fact. They see everything from a simple point of view rather than look at the complexities of each idea. The Adolescent has no difficulty confronting other faculty on what they define as “unfair,” even if it is personally intrusive. They will make bold statements in public arenas leading to misperception. Contrary to their overt behavior, the Adolescent may be highly skilled in organization and teaching thus placing them into leadership roles they should not be placed.

• **The Hypocrite:** The Hypocrite can be the administrator’s worst nightmare. This person tends to smile, give approval and will make appointments to compliment and state support. However, simultaneously, they are working behind the scenes to undermine, discredit and belittle the administrator. The Hypocrite will put an administrator “under the bus” without him/her ever realizing it. The difficulty for an administrator is insuring they aren’t taken in by the hypocrisy and sharing issues of confidence.

• **The Loner:** Far too often a resume’ fails to portray reality. The Loner is that person who enters the ranks of the faculty without the skill to succeed. They tend to isolate themselves into their offices, have little interaction with other faculty and make limited productive contribution in meeting the needs of the department. They are unhappy, expressing it quietly to others and in many cases the administration is left to work around them. Other faculty soon pick up on the fact that they are being called upon to fill the void and begin to resent the presence of the Loner.

While these extreme personalities may not surface in many units, it is for certain some will do so in other units. Other authors have made similar delineations.

**Perspectives of Faculty Personality from a Variety of Authors:**
Bissell (2003, p. 1) indicates there are six unproductive conflict styles:

- **“The Bully”** - If they cannot solve the conflict through shouting ("Give him what he wants if it will shut him up!"), then there are always threats and intimidation upon which to draw.
• **The Complainer** - They make it clear that they are inundated with problems and doing better than anyone has a right to expect. They hope that someone will rescue them by taking on the conflict.

• **The Procrastinator** - The procrastinator simply puts any problem on a back burner.

• **The Guerilla Fighter** - Guerrilla fighters use an insidious sarcasm and criticism to browbeat their "enemies" into feeling that they were stupid to even have raised the issue.

• **The Expert** - Often bright and often right, these people refuse to ever be wrong. They will wear you down with data, credentials, and at times long, involved arguments.

• **The Icicle** - The icicles freeze up at the first sign of conflict. The icicle believes that whoever is the quietest wins: "If you say nothing, you cannot be attacked."

Another scholar, Christy (2011) delineates negative stereotypes as those who are absent minded, disorganized, last-minute, detached (in ivory tower), prima donna, too busy and preoccupied. Finally, Silsby (2006. P. 2) provides the following terms and phrases that are most often used to describe difficult educators:

- lazy
- lack of preparation
- negative
- resistant to change
- defensive
- inflexible
- unprofessional
- unorganized
- can’t get along with others
- content centered vs. student centered

Acknowledging there is a massive deluge of resources addressing difficult faculty and there are many different characterizations of them, the result and concerns are all they same. “If you can’t handle and cope with them, they can hurt your productivity and profitability, dampen morale, drain energy, cause stress and simply make life miserable (CCM, p. 1, 2006).”

Given this, it has to be acknowledged these personality characteristics may be found to some degree in the majority of faculty. The challenge comes when individual faculty members live the extreme of these negative factors. The vast majority of faculty members, even with some of these characteristics, are overall professional, committed, dedicated, caring and are the cause of why so many Schools of Education are accredited and serving the nation well in preparing excellent teachers. By no means is this article intended to portray higher education as dysfunctional. It is focusing rather on the difficulties of leadership in accomplishing the many demands placed on administration. It is the challenge of leadership to turn the frustrations into opportunities. In so recognizing this challenge, it must also be recognized that there are factors, beyond personality, impacting the behavior of faculty.

**Other Dynamics Impacting Faculty Behavior:**

Having served in Education for 44 years, the winds of change have been forever blowing. As so many have long shared, it seems the pendulum of change is forever moving from one extreme to the other. Of recent date is the overbearing amount of overregulation on the profession. The dreams of teachers have been crushed by the weight of high stakes assessment, excessive
prescription of state regulation, the over indulgent intrusion of politics into the profession and the extreme scrutiny of minute details into the accreditation processes. Educators are frustrated that their desires of caring for students, impacting their lives and the ability to be creative and innovative have been exchanged for what is now called “accountability.” To that end, some teachers and educators have become cenacle and are simply trying to do the job rather than enjoy the joys of the profession.

Another dynamic impacting faculty behavior is the inconsistent leadership skills they see in administrators. Far too often the variance in style is a complexity of confusion to the faculty. In one instant the administrator is a micromanager and demands attention to every detail, be it necessary or not. Another administrator is loved by all, extremely charismatic, but could care less about detail, depending on key faculty to do the work while excusing others. Then there is the delegating administrator who builds his team, depends on them to delegate to others and basically removes himself/herself from the workings of the unit. Finally, there is the administrator who was placed into the position for reasons other than competence in the profession. In time, all of these styles create distrust with faculty in working positively with administration.

One of the most dramatic changes impacting faculty behavior has been the deterioration of the family. With the ever growing social value change, as marked by the decline of the family, has appeared a society that devalues education personally while embracing it to provide for the financial welfare of that society. Often the whole notion that educators educate is lost in the outcries that education is to correct the ills of society. To that end, the mission of education is fragmented by the meaning each individual stakeholder gives to it. Thus faculties are also fragmented as to their purpose.

Ecoggins (2010) quoting from Osbourne and Leonard 2009) indicates that economic factors are having a very pronounced impact on higher education. “In regards to higher education in the United States, the current economic downturn poses both an opportunity and a threat; an opportunity in that more citizens are returning to school to upgrade their knowledge and skills in hopes of better job prospects and a threat in those state-run institutions are receiving less government assistance due to necessary budget cuts.” With this, faculties are finding much more is demanded of their time, with many additional duties and assignments, overloads etc. without being provided adequate financial compensation. Far too often travel is the first budget item cut in a period of austerity. However, the mandate for research, publication and presentation is rarely changed. It is felt that such abuse by the administration of higher education is insensitive.

Finally, the university culture has much to do with the behavior and performance of its faculty. One university indicates that as a learning community it is dedicated to communication, diversity, excellence, respect, service, sustainability and teamwork (George Washington University, 2011). I doubt many would find fault with the admirable qualities of this intent. The fracture comes when the university community becomes so territorial that it creates a survival mentality within itself thus the whole notion of communication is lost, respect deteriorates to a lack of civility, excellence is narrowed by who defines it and teamwork is not even found in the acting vocabulary of the faculty.

While there are a myriad of dynamics that may impact faculty behavior, the intent in naming these few is simply to suggest behavior may be a personality issue or one shaped by other factors over time. Whatever the reason, an administrator, particularly one in higher education, must find ways to address it and make a unit productive. In an effort to identity guidelines for “Herding the Cats,” the author interviewed several deans and program coordinators and found common
ground among them in what they expressed as keys to leadership in working with higher education faculty.

**Keys to Leadership in Working with Higher Education Faculty:**

*Key #1 – Start by getting to know the faculty personally.*

Never assume buy-in begins with the vision of the new administrator but it is a collective set of ideas discovered when meeting with each faculty member. If the administrator wants a community mindset, then it begins by knowing the ideas of each community member.

*Key #2 – Be careful in jumping to conclusions.*

Far too often in working closely with faculty we fail to hear what they are saying. Getting past the emotion, the expression of a comment or the audience in which it was said, an administrator should ask sufficient and appropriate questions as to the intent of a comment or conversation rather than basically drawing a conclusion on a wrong interpretation.

*Key #3 – Let your feet do the talking.*

Over dependence on the email as the primary source of communication is often tearing down more bridges than it is building. Use email wisely, frugally, and only for business. Never use email to express opinion. It is wise to remember that emails are a permanent record, can be legally pursued, and aren’t the best method of communicating meaning to words. Take the time to talk with the faculty.

*Key #4 – Be honest.*

Honesty doesn’t mean an administrator has to bear their soul on issues, such transparency may be seen as a weakness. At the same time, when dealing with some of the toxic personalities, be honest with them as to expectation. If in disagreement, acknowledge the strength in their argument but ask why? Or how? Don’t hesitate to share the reasoning for an action or required task.

*Key #5 – Establish Stakeholder Advisory Committees.*

Far too often, in the concern of time, we attempt to blend all the stakeholders into one very cumbersome advisory board. Begin with smaller advisory committees that allow a focus on the issues of a particular population of stakeholders. Using such committees then provides a voice to the faculty.

*Key #6 – Know the difference between delegating and dumping.*

When delegating, make it meaningful. Delegation should serve the purpose of advocating for excellence not simply the well-being of the unit. Think as a faculty member when delegating to them. Never allow personal inadequacies to be the purpose of delegating. When delegating, insure the time frame is reasonable to all concerned. Finally, when delegating, remember if it is worthy of delegation then it is not worthy of micromanagement by the delegator.

*Key #7 – Reallocate wisely.*

In most cases, the dean has a lot of latitude with the budget. While most budget items are earmarked for fixed expenditure, there are unrestricted monies to address the needs of the school. A good leader needs to identify different ways to reallocate funding to assist faculty. For example, if there are no funds to provide for release time in order to encourage needed activity, prioritize travel as an award to provide compensation to faculty leadership. Find creative means to initiate incentives during economic shortages such as encouraging specified foundation funding to the school from faculty and community. If faculty perceives a level of equal sacrifice and a willingness to explore all alternatives, they may be more cooperative when asked to take on tasks not covered by any other compensation.

*Key #8 – Remember “It ain’t nothin but a thing?”*
Having the pleasure of hiring a new Administrative Assistant, I found her approach to difficulty comforting. Within one university structure, I found it overwrought with mindless, excessive and often time needless procedures. For example, when resigning from this university, a form had to be attached to the resignation letter. On the form it listed all the possible reasons for the termination of employment. After completing the form, it had to be signed by at least eight different levels of administration. One of the items that could be checked for termination was “death” and yes it had to be signed as approved by eight different levels of administration. Faculty, expectedly, are very scornful when they feel procedure lacks common sense. None-the-less, it was required although often frustrating. As an administrator I wanted to express my own discontent on this until my Administrative Assistant would often remind me “It ain’t nothin but a thing.” It put it all in perspective. We did what we had to do and moved on. Thus in being in higher administration, it requires moments of calmness when dealing with what may appear sometimes as absurd. If the administrator has a calm spirit, then there is a good chance the faculty may as well. As one of my interviewee put it, “Your task as an administrator is to get things done. Thus, your first question when given a charge is to ask, what are ways to get this done?” Often our first tendency is to ask, when am I going to find the time to add this to my already committed schedule? Constantly remind yourself “It ain’t nothin but a thing” and give it your best.

Key #9 - Walk the Talk.

All of us have met administrators who have great ideas about leadership but don’t walk their talk. Nothing infuriates a faculty more than when they see inconsistency. A higher education administrator can’t be all things to all people but is expected to give the allusion that he/she is. This doesn’t mean that there is the expectation that any request or demand of the faculty is acceptable. It simply means we must remain true to our principles of life and the guiding values we hold. Accept the fact that at any given moment with any given decision there will be disagreement. And in most cases, there will always be some faculty who has major issues with your style, leadership and/or personality. But, be consistent in that what you say is what you do.

Key #10 – Know when to quit.

Being a higher education administrator can be professionally risky. One has to enter it with the knowledge this is their calling. That also means it may require abilities yet to be learned. Sometimes failure can be the greatest teacher, learn from it. Most importantly, realize that the answer to any given situation may be well beyond the realm of personal knowledge, experience or capability. My greatest advice to any potential administrator is an understanding that many times we need to first go beyond on our own realm and seek God’s guidance. When you feel that it’s an impossibility to “herd cats” then it may be the time to quit. When we lose our love for teaching, leading, our colleagues and our job, then it’s time to quit. Know when that time comes!

These ten keys are by no means all inclusive to being an excellent higher education administrator but simply some common elements mentioned by the team of administrators interviewed for this article. Taking these keys and building on them, the author would like to suggest five “As” to building an effective School of Education.

Five “As” for Effective School of Education Leadership:
Acceptance

We must first accept the reality that even though a School of Education is a community within itself, it is a part of the larger college community in which it is called to serve. Participatory involvement should be encouraged and developed. The wise utilization of available personnel
resources should be recognized as vital in accomplishing the purposes of the school. There needs to be acceptance that the talents of the ingenious and creative people, asked to serve the students, have a commitment to the quality of their profession. Therefore, openness to shared decision-making, cooperative problem-solving and autonomy within organizational teams should be accepted as a valuable element of an effective school.

Accountability

In a global society, each person is ultimately responsible for his or her actions and accountable for those actions to the whole body of society. In like manner, we in the School of Education are responsible for the education of the students led to us and must stand accountable for that education. Common sense, however, dictates that there are many variables which influence the outcomes of education. I, therefore, believe that we as educators must be accountable for doing all within our power to see that every student has the opportunity the college provides for his/her education, academically, professionally and personally. That, combined with motivation, sound instruction and cooperation from the student, should maximize the potential for an accountable educational program.

Achievement

All too often we are tempted to go after quantity at the expense of quality. The temptation is to frequently emphasize bigger, more expensive programs, etc. I believe an effective School of Education college seeks to undergird quality educational and opportunity. As a result, the quality of education should be measured by the concern, dedication and expertise we bring to the table, as manifested in interesting, dynamic led learning experiences. Effort, competence, and responsibility should be the key outcomes strived for in such an emphasis.

Alternatives

A School of Education should produce problem solvers, critical thinkers, community leaders and societal change agents who understand the basis of truth. It should be an institution which is as concerned about the fourth "R", relationship, as it is the teaching skills, scholarship and research. Organizationally, a School of Education sets priorities in both content disciplines and responsible self conceptualization. A School of Education views students in terms of the totality of scholarship, with specialized skills for success in the life and vocation to which they dream to aspire.

Appreciation

Far too often those most dedicated to the ideas and hopes of students go unnoticed. Often, educators feel as though they are working in a vacuum. I believe a School of Education should make every effort possible to help those closest to the heart and pulse of the college, the professors, feel appreciated and needed. If they feel needed and appreciated, there's a good possibility their students will as well.

Each of these elements is philosophical, but I believe they support a set of organized principles that will contribute to an effective School of Education.

Summary:

Some may consider the topic “Herding Cats” a indignation to the vast majority of caring, outstanding, overworked and underpaid plethora of higher education faculty. As defined, it is simply an idiom saying to characterize the chaos that may ensue when leadership is faced with varied personalities within a unit, some of which create a dysfunctional environment in which to work. Using the wisdom of several noted authors, acting deans, program directors and 44 years of personal joy in the profession, this article intended to convey some common sense actions that may act as a positive guide toward effective leadership. Following that, the article also reached to
sharing a vision for a School of Education in which, hopefully, these keys to leadership are
displayed. This article begs for further study, perhaps an empirical study as a follow-up, and is by
no means intended to be an all inclusive guide to good leadership. It is the hope of the author that
the reader will leave sensing someone has walked that road with them and in so doing, completely
understands the challenge and opportunity of being a higher education administrator.

References
People: A Guide for Department Chairs and Deans. Online source, downloaded June 9,
2011: http://www.aahea.org/bulletins/articles/difficultfaculty.htm
Christy, B (2011) How to work with difficulty faculty. Online source, downloaded June 10,
Dealing with Difficult People at Work (2011) From the Center for Competitive Management.
Online source, downloaded June 10, 2011: http://www.e4cm.com/generalmanagement/difficult_people.htm
Ecoggins (2009) External factors that could impact american higher education. Online source,
American-Higher-Education
Interview, Dr. Cathy Gunn, Dean of the College of Education, Morehead State University, June
9, 2011.
Interview, Mr. Duane Lambert, Program Coordinator, MAT Program, College of Education,
Morehead State University, June 8, 2011.
Interview, Dr. Scott McBride, Dean of the College of Humanities, Morehead State University,
June 1, 2011.
Interview, Dr. Kathryn Polmanteer, Assistant Dean of the College of Education, Morehead State
University, June 3, 2011
http://www.ilprincipalmentoring.org/website_documents/resources/educational_leadership/
Dealing%20With%20Difficult%20Teachers.pdf
University Culture (2011) From an Online Guide for Supervisors at GW. Online source,
downloaded, June 22, 2011: http://www.gwu.edu/hr/manual/operating/culture.html
Sparking Girls’ Interest in Technology: The NSF Tri-IT Project

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Abstract

The Tri-Regional Information Technology (Tri-IT) research project was a $1.5 million National Science Foundation (NSF) grant that sought to address gender inequality by providing after-school technology experiences to high school girls (n = 360). A treatment group of 180 girls in six high schools in North Florida was compared to a control group of 180 girls. Schools targeted were high minority, low socioeconomic status (SES) schools. Students in the treatment group received 280 hours of IT instruction, including three 40-hour summer academies and 40 hours of after-school instruction each fall and spring for two years. Staff administered three pre- and post- assessments to each treatment and control group student: the Motivated Strategies for Learning Questionnaire, Computer Attitude Questionnaire, and TechLiteracy Assessment. Findings indicate gains in knowledge and confidence, and paradoxically, a decrease in interest and motivation, possibly due to a time of year effect. Thirteen curriculum modules, summer academies, and podcasts are available for public dissemination at www.t3girls.com. The educational modules were designed to spark girls’ interest by employing constructivist learning principles, feminist pedagogies, and a multicultural curriculum. The purpose of the study was to advance the currently limited understanding of how to increase girls’ interest, skills, and confidence in science, technology, engineering, and math (STEM) and information technology (IT) in particular. The project was especially significant as few women, and even fewer women of color, pursue careers in the lucrative field of IT.

Introduction

Computers are an integral part of today’s media saturated society (Birch, 2011), but researchers have documented that there are gender differences in the use of computer technology (Chronaki & Vekiri, 2008). Although differences are diminishing, boys still tend to use computers more and have more self-confidence and higher reported computer skills as compared to girls, even in the areas of gaming, Internet usage and music downloading (Sink, Sink, Stob, & Taniguchi, 2008).

Girls are also less likely to consider technology-related studies in college or technology related careers (Singh, Allen, Scheckler, & Darlington, 2007; Morris & Daniel, 2008). High school girls experience a gap between the technologies they use and how that knowledge could translate into a career (Chronaki & Vekiri, 2008). African American girls, in particular, and their relationships to technology are narrowly understood and rarely explored (Buck, Cook, Quigley, Lucas, & Eastwood, 2009). Few girls and even fewer girls of color enroll in information technology courses in high school or major in technology fields in college, a phenomenon which is attributed to their lack of interest in technology, lack of technology skills, and lack of confidence in their abilities (Buck et al., 2009). In response to this concern, researchers and educators are calling for more programs to enhance girls’ interactions with technology (Craig, Lang, & Fisher, 2008).

This study will advance the currently limited understanding of how to increase girls’ interest, skills, and confidence in information technology (IT). The project is especially significant as few women and fewer women of color pursue careers in the lucrative field of information technology. Women earn less than 0.34% of doctoral degrees in computer science and less than 0.58% in engineering degrees (“Anita Borg Institute”, 2008). The long-term goal of this project is for participating girls to pursue college majors and careers in IT.

Literature Review

Although half of the US population of college students and the US workforce is female, women hold less than 25% of science, technology, engineering, and math (STEM) jobs in the
nation (Beede et al., 2011). According to Frink (2011), “women currently comprise 18% of computer science undergraduate majors, down from 37% in 1985.” There is a growing concern about the lack of women in the computer science field, which is the basis for numerous research studies to determine the reasons for such a disconnect (Sink, et al., 2008). In one of the most notable studies, Cooper (2006) focused on younger children and the use of and interest in computers, particularly the differences between boys and girls. Kay (2007) reported that the difference in attitude towards computers is significantly higher as girls get older, with no difference in technology attitudes between boys and girls attending 4th grade, but considerable negative attitudes towards computers shown by girls attending 7th and 8th grade.

Ensmenger (2010) attributed the gender gap to a social representation of the computer scientist population, a stereotype of the introverted, socially awkward male. As girls do not associate themselves with this stereotype, they are not interested in pursuing computer careers. Additionally, researchers cite the lack of confidence in their abilities as a reason why girls do not pursue majors in technology (Buck et al., 2009). In 1996, women comprised 41% of the technology workforce, but by 2004, that ratio had dropped to 32% (ITAA, 2005). A 2006 survey of the Society of Women Engineers indicated that 75% of American girls have no interest in pursuing a career in science, mathematics, or technology. The presence of mentors and role models can help (Tyler-Wood, Ellison, Lim, & Periathiruvadi, 2011). Beyond college, Farmer, Wardrop, Anderson, and Risinger (1995) found a positive relationship between career persistence among women in science, math, and technology and the number of high school science courses taken.

The lack of equal representation for women of color in science, technology, engineering, and math (STEM) is a special problem (Klawe, Whitney, & Simard, 2008). While inequities in STEM fields exist for all girls, they are compounded for girls of color and confidence-building activities are essential (Birenbaum & Nasser, 2006; Greene, Way, & Pahl, 2006). Research shows that African American girls are especially affected by the math and science support they are provided and greatly benefit from STEM focused career development (West-Olatunji et al., 2010). Hence, interventions for pre-college girls are essential. According to Rollock (2007), the limited research on African American girls suggests some unique racialized-genderized patterns of behavior. The current literature on girls in science and technology does not adequately address issues of race, gender, and income status of girls or their treatment in technology based classrooms (Buck et al., 2009).

Conceptual Framework

According to self-efficacy theory (Bandura, 1997), people’s beliefs in their ability to succeed in certain areas influence what they choose to pursue and how much effort they are willing to put forth to be successful. Individuals with high self-efficacy in a given area are more likely to be motivated to persist and succeed. Perceptions of environment can influence students’ self-efficacy and, consequently, their success. Incorporating feminist pedagogies (such as instructional methods that appeal to the needs and preferred learning styles of women) may be one way to increase the success of women, especially those in non-traditional majors. In contrast to traditional teaching methods, feminist pedagogies such as collaborative learning may help create a classroom climate that is more conducive to learning for women (Rosser, 1990).

The pedagogical approach of the curriculum development was a combination of constructivist principles, feminist pedagogies, and self-efficacy theory. There was also a great emphasis on developing an inclusive, multicultural curriculum, incorporating a number of strategies from the existing body of research including aspects of Banks’ (2004) model of multicultural curriculum
integration in the development and implementation of the program. Some curriculum content was adapted from Enhancing Science and Technology Education and Exploration Mentoring (CWIT, 2007) and TechBridge (Chabot, 2008), both previously funded NSF projects, however most content was developed by consultants and project team members with expertise in curriculum design.

Research-based strategies were incorporated to engage girls in STEM, including: collaborative learning, emphasis on practical applications, teaching science in a more holistic and social context, hands-on experiences, career exploration including field trips, and role models and mentors. These strategies have been successful in improving girls’ self-confidence and interest in STEM courses and careers (Tyler-Wood et al., 2011); and these strategies have a positive impact on girls’ continuation in quantitative disciplines and sciences (Campbell, Jolly, Hoey, & Perlman, 2002; Koch, 2002; Lee, 1997; Weglinsky, 2000).

When assessing interest and motivation, research shows that the time of year an assessment is administered to students can significantly affect the results (Lavrakas, 2008; Tomal, 2010). Although the beginning and end of an academic school year are the times when pre- and post-assessments are most often administered, both are suboptimal times to administer assessments, as participants can be busy with preparations or may be focused on the upcoming break (Tomal, 2010). According to Lavrakas (2008), when designing an assessment, it is important to consider not only the purpose of the assessment, but also the events that will occur during the proposed testing time, particularly when the participants are high school students who are facing holiday breaks and summer vacation.

**Project Overview**

The Tri-Regional Information Technology (Tri-IT) research project was a $1.5 million grant funded by the National Science Foundation (NSF) Innovative Technology Experience for Students and Teachers (ITEST) program (Grant No. DRL-0833628) to provide after-school technology experiences to high school girls. Three institutions of higher education in North Florida were partners in the project, including one historically black college and university (HBCU). The project received the Florida Association of Community Colleges Equity Commission’s Exemplary Practice Award for Reach-Out and Access in 2009. The National Science Foundation funded the Tri-IT project from October 2008 through September 2011, with a no-cost extension requested through September 2012.

A treatment group of 180 girls in six high schools in North Florida was compared to a control group of 180 girls who also applied to be in the program. Students in the treatment group received 280 hours of instruction and activities, including three 40-hour summer camps and 40 hours of after-school IT instruction and activities each fall and spring for two years. The after-school IT programs met once or twice a week during the school year and on some Saturdays. The project began in summer 2009 and ended in summer 2011.

The thirteen modules created for the project included: Animation, Digital Media, Web Design I, Green Living, Robotics, Science of Scent, CSI Forensics, Web Design II, Electronics, Design and Manufacturing, Rocketry, Health and Wellness and Computer Systems Engineering. The three summer camps were focused on Global Information Systems/Global Positioning Systems (GIS/GPS), Podcasting and Mobile Devices. All curriculum modules, educational materials and summer camps are available for public use and dissemination at [www.t3girls.com](http://www.t3girls.com).

**Methods and Procedures**

The research portion of the project followed a quasi-experimental design. Each of the three partnering institutions identified two pairs of high schools (four total high schools at each of the
three college sites, for a total of twelve high schools) which were demographically similar, based on socioeconomic status (SES) and ethnicity. Schools with a student population that is low SES with a high minority representation had preference for the purpose of the study.

Tri-IT staff administered each treatment and control group three assessments at the beginning of the first academic year and end of the project: the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991), the Computer Attitude Questionnaire (CAQ) (Knezek, & Christensen, 1995), and the TechLiteracy Assessment (learning.com, n.d.; Black, Ferdig, & DiPietro, 2008). Each of the thirteen curriculum modules and the three summer camps included a pre- and post-test with a knowledge scale and confidence scale.

**Study Sample Size and Selection**

A cohort of 9th grade girls \( n = 360 \) was the targeted audience. The sample was to consist of 120 high school students associated with each of the three institutions of higher education. One hundred eighty of these students (60 from each college) were to be a part of the treatment group and 180 (60 from each college) were to be in the control group. Both groups were followed from 9th through 11th grade.

The after-school technology program was marketed to all 9th grade girls at all twelve selected high schools. Girls completed an application process, which included obtaining parental permission. After the recruitment period was completed, two of the four schools at each college site were randomly selected as the treatment group (one school from each demographically similar pair) and the other two schools served as the control group.

All participants and their parents were asked to sign an informed consent form. Students’ responses were held confidential and only aggregated data were presented. Institutional Review Board approval for the study was obtained from prior to the collection of any data.

**Research Instruments**

The Motivated Strategies for Learning Questionnaire (Pintrich et al., 1991) was selected because it was specifically recommended by a NSF staff member at the NSF ITEST Summit for all grant recipients. The Computer Attitude Questionnaire (Knezek, & Christensen, 1995) was also recommended at the NSF ITEST Summit. The TechLiteracy Assessment (learning.com, n.d.; Black, Ferdig, & DiPietro, 2008) was selected because it was approved by the International Society for Technology in Education (ISTE), which is considered a reputable source for technology in education. As the curriculum for the weekly activities and summer academies was developed by project staff and consultants, the pre- and post-test assessments were developed by them as well.

The MSLQ is an 81-item scale with two subscales, including Motivation and Learning Strategies. It is a self-report instrument designed to assess motivation orientations and use of different learning strategies for a course. Only Subscale I: Motivation, with 31 items, was included in the study. The motivation scale assesses students’ goals and value beliefs for a course, beliefs about skills to succeed in a course, and their anxiety about tests in a course.

The CAQ Version 5.22 is an 85-item self-report instrument designed to measure student’s perceptions, attitudes and dispositions rather than achievement. The CAQ has seven subscales, including: (1) Computer Importance, (2) Study Habits, (3) Empathy, (4) Motivation/ Persistence, (5) Creative Tendencies, (6) Email, and (7) School. While students in this study took the entire questionnaire, only Subscale I: Computer Importance, with 20 items, is included in this initial data analysis.
The TechLiteracy Assessment is a 47-item scale, which is administered online. It is designed to measure students’ proficiency with the technology tools, knowledge, and skills considered relevant to predicting their success in modern classrooms. There are seven modules on the assessment, including: (1) Systems and Fundamentals, (2) Social and Ethical, (3) Word Processing, (4) Spreadsheets, (5) Multimedia and Presentations, (6) Telecommunications and Internet, and (7) Database.

The pre- and post-test for each of Summer Camps included 5 multiple-choice items on the knowledge scale and 10 items on a 5-point Likert scale, ranging from 1-strongly disagree to 5-strongly agree, on the confidence scale. The possible range of scores for the knowledge scale was 0 to 5 points. The range of scores on the confidence scale was 10 to 50 points. As the project team realized the need for a greater spread, in order to show greater variation in responses, the number of items increased to 10 items on the knowledge scale and 10 items on the confidence scale for the curriculum modules.

Data Collection and Analysis

Project staff at each of the three college sites administered paper versions of the MSLQ and CAQ, and the TechLiteracy Assessment online, to both the treatment and control group students. The data analysis included running descriptive and inferential statistics for the summer camp and curriculum module assessments, including means and standard deviations. T-tests were conducted for the MSLQ, CAQ and TechLiteracy Assessment, comparing treatment group scores to control group scores. Only cases with both a pre- and post-test score were included in the data analysis for that particular assessment and all cases with any missing items for a specific assessment were eliminated from the data analysis for that assessment. Except for the summer camps, scores were not broken out by college site and only aggregated data are reported.

Limitations and Delimitations

A limitation of the study is that random selection of participants did not occur. As students applied to be in the program, all students in the study were presumably motivated to participate and interested in technology. The delimitations of this study were that participants were females who attended one of the twelve high schools in North Florida, which were selected for the study. Schools targeted were those with high minority enrollment and low socioeconomic status. Hence, the generalizability of the results is limited.

Findings

The original goal to recruit 360 students was achieved. At the end of the project in June 2011, 364 students had been recruited, however only 131 students were currently active. Therefore, while the study sample consisted of 364 students, the number of students taking both the pre- and post-test varied for each of the assessments.

Findings indicate gains in knowledge and confidence, as measured by pre- and post-tests for the modules and summer camps, in most cases. Students in the treatment group had greater gains in technology skills, as measured by the TechLiteracy Assessment, than the control group, and the difference was statistically significant. Paradoxically, students in the treatment group showed decreases in motivation, as measured by the MSLQ, and decreases in computer interest, as measured by the CAQ, while the control group showed gains in motivation and computer interest, although the differences between the two groups were not statistically significant for either the MSLQ or CAQ.

Curriculum Modules

Student attendance was factored into the data analysis for the curriculum modules in order to determine if attendance made a difference in the students’ scores. If a student attended all
sessions, they were coded full-time (FT) for this data analysis. If a student missed any sessions, they were coded as part-time (PT). Results for each module are presented below:

**Module 1 – Animation.**

Scores on the Animation curriculum module indicated a higher reported gain in knowledge for full-time (FT) students \( (M = 1.70, SD = 2.05, n = 23) \) as compared to part-time (PT) students \( (M = 1.22, SD = 1.65, n = 23) \); and a higher reported gain in confidence for FT students \( (M = 20.48, SD = 11.42, n = 23) \) as compared to PT students \( (M = 16.52, SD = 6.68, n = 23) \). Although there was a higher reported gain in both knowledge and confidence from full-time students, there was no statistical difference \( (p = > .05) \) between the two groups: (a) knowledge – \( t(44) = 0.87, p = .35 \) (two-tailed); and (b) confidence – \( t(35.47) = 1.43, p = .08 \) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 2 – Digital Media.**

Scores on the Digital Media curriculum module indicated a higher reported gain in knowledge for PT students \( (M = 1.20, SD = 1.86, n = 15) \) as compared to FT students \( (M = 1.05, SD = 2.44, n = 19) \); and a higher reported gain in confidence for FT students \( (M = 8.32, SD = 11.97, n = 19) \) as compared to PT students \( (M = 7.07, SD = 9.06, n = 15) \). Although there was a higher reported gain in knowledge from part-time students and higher confidence from full-time students, there is no statistical difference \( (p = > .05) \) between the two groups: (a) knowledge – \( t(32) = -.19, p = .58 \) (two-tailed); and (b) confidence – \( t(32) = .33, p = .37 \) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 3 – Web Design I.**

Scores on the Web Design I curriculum module indicated a higher reported gain in knowledge for PT students \( (M = 2.95, SD = 2.52, n = 22) \) as compared to FT students \( (M = 2.67, SD = 1.58, n = 9) \); and a higher reported gain in confidence from full-time students and higher confidence from full-time students, there is no statistical difference \( (p = > .05) \) between the two groups: (a) knowledge – \( t(29) = -.32, p = .62 \) (two-tailed); and (b) confidence – \( t(29) = .23, p = .41 \) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 4 – Green Living.**

Scores on the Green Living curriculum module indicated a higher reported gain in knowledge for PT students \( (M = .86, SD = 1.88, n = 22) \) as compared to FT students \( (M = .33, SD = 1.80, n = 9) \); and a higher reported gain in confidence for FT students \( (M = 4.67, SD = 4.46, n = 9) \) as compared to PT students \( (M = 3.26, SD = 6.97, n = 23) \). Although there was a higher reported gain in knowledge from part-time students and higher confidence from full-time students, there was no statistical difference \( (p = > .05) \) between the two groups: (a) knowledge – \( t(30) = .74, p = .77 \) (two-tailed); and (b) confidence – \( t(30) = .56, p = .29 \) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 5 – Robotics.**

Scores on the Green Living curriculum module indicated a higher reported gain in knowledge for FT students \( (M = 1.23, SD = 1.68, n = 17) \) as compared to PT students \( (M = .62, SD = 1.93, n = 24) \); and a higher reported gain in confidence for PT students \( (M = 13.17, SD = 6.67, n = 24) \) as
compared to FT students \((M = 12.06, SD = 6.30, n = 17)\). Although there was a higher reported gain in knowledge from full-time students and higher confidence from part-time students, there was no statistical difference \((p > .05)\) between the two groups: (a) knowledge – \(t(39) = 1.05, p = .15\) (two-tailed); and (b) confidence – \(t(39) = -.53, p = .70\) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 6 – Science of Scent.**

Scores on the Science of Scent curriculum module indicated a higher reported gain in knowledge for full-time (FT) students \((M = 2.35, SD = 1.88, n = 23)\) as compared to part-time (PT) students \((M = .10, SD = 2.52, n = 13)\); and a higher reported gain in confidence for FT students \((M = 16.91, SD = 10.58, n = 23)\) as compared to PT students \((M = 15.38, SD = 7.30, n = 13)\). Although there was a higher reported gain in both knowledge and confidence from full-time students, there was no statistical difference \((p > .05)\) between the two groups in their confidence gain – \(t(34) = .46, p = .32\) (two-tailed); however, there was a significant difference in their knowledge gain – \(t(34) = 1.94, p = .03\) (two-tailed), indicating that students in a full time status reported a considerable higher knowledge gain than part-time students. Overall results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 7 – CSI Forensics.**

Scores on the CSI Forensics curriculum module indicated a higher reported gain in knowledge for FT students \((M = 1.75, SD = 1.76, n = 12)\) as compared to PT students \((M = 1.2105, SD = 1.98827, n = 19)\); and a higher reported gain in confidence for FT students \((M = 13.60, SD = 8.25, n = 12)\) as compared to PT students \((M = 13.47, SD = 10.28, n = 19)\). Although there was a higher reported gain in both knowledge and confidence from full-time students, there was no statistical difference \((p > .05)\) between the two groups: (a) knowledge – \(t(29) = .76, p = .22\) (two-tailed); and (b) confidence – \(t(29) = .03, p = .49\) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 8 – Web Design II.**

Scores on the Web Design II curriculum module indicated a higher reported gain in knowledge for PT students \((M = 3.00, n = 1)\) as compared to FT students \((M = 1.36, SD = 2.32, n = 25)\); and a higher reported gain in confidence for FT students \((M = 13.00, SD = 10.08, n = 25)\) as compared to PT students \((M = 11.00, n = 1)\). Although there was a higher reported gain in knowledge from part-time students and higher confidence from full-time students, there was no statistical difference \((p > .05)\) between the two groups: (a) knowledge – \(t(24) = -.70, p = .42\) (two-tailed); and (b) confidence – \(t(24) = .19, p = .42\) (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 9 – Electronics.**

Scores on the Electronics curriculum module indicated a higher reported gain in knowledge for PT students \((M = 2.22, SD = 2.63, n = 9)\) as compared to FT students \((M = .72, SD = 2.11, n = 18)\); and a higher reported gain in confidence for PT students \((M = 12.11, SD = 10.97, n = 9)\) as compared to FT students \((M = 9.90, SD = 9.47, n = 18)\). Although there was a higher reported gain in both knowledge and confidence from part-time students, there was no statistical difference \((p > .05)\) between the two groups: (a) knowledge – \(t(25) = -1.60, p = .19\) (two-tailed); and (b) confidence – \(t(25) = 1.55, p = .70\) (two-tailed). Results indicate that there was a
gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 10 – Design and Manufacturing.**

Scores on the Design and Manufacturing curriculum module indicated a higher reported gain in knowledge for FT students ($M = 2.00, SD = 1.86, n = 12$) as compared to PT students ($M = .00, SD = .14, n = 11$); and a higher reported gain in confidence for PT students ($M = 5.45, SD = 7.94, n = 11$) as compared to FT students ($M = 5.33, SD = 14.55, n = 12$). There was a significant difference ($p = > .05$) in FT student knowledge gain, as compared to PT students – $t(21) = 2.88, p = .00$ (two-tailed), indicating that students in a full-time status reported a considerable higher knowledge gain than part-time students, with a difference in gain from FT students as compared to PT students of approximately 1 standard deviation (Cohen’s $d = 1.21$). However, there was no statistical difference between the two groups in their confidence gain – $t(21) = -.02, p = .51$ (two-tailed).

**Module 11 – Rocketry.**

Scores on the Rocketry curriculum module indicated a higher reported gain in knowledge for PT students ($M = 2.87, SD = 2.03, n = 8$) as compared to FT students ($M = 1.33, SD = .58, n = 3$); and a higher reported gain in confidence for PT students ($M = 13.67, SD = 17.56, n = 3$) as compared to PT students ($M = 13.37, SD = 6.16 n = 8$). Although there was a higher reported gain in knowledge from part-time students and higher confidence from full-time students, there was no statistical difference ($p = > .05$) between the two groups: (a) knowledge – $t(9) = -1.26, p = .88$ (two-tailed); and (b) confidence – $t(9) = .04, p = .48$ (two-tailed). Results indicate that there was a gain in both knowledge and confidence for both groups of students (full-time and part-time attendance).

**Module 12 – Health and Wellness.**

Scores on the Health and Wellness curriculum module indicated a higher reported gain in knowledge for FT students ($M = .09, SD = 2.34, n = 11$) as compared to PT students ($M = .50, SD = 2.66, n = 6$) and a higher reported gain in confidence for PT students ($M = 12.33, SD = 18.06, n = 6$) as compared to FT students ($M = -1.45, SD = 19.78, n = 11$). Although there was a higher reported gain in knowledge from full-time students and higher confidence from part-time students, there was no statistical difference ($p = > .05$) between the two groups: (a) knowledge – $t(15) = -.33, p = .63$ (two-tailed); and (b) confidence – $t(15) = -1.41 p = .91$ (two-tailed).

**Module 13 – Computer Systems Engineering.**

Scores on the Computer Systems Engineering curriculum module indicated a higher reported gain in knowledge for PT students ($M = 1.60, SD = .55, n = 5$) as compared to FT students ($M = -3.00, SD = 2.64, n = 3$); and a higher reported gain in confidence for PT students ($M = 11.00, SD = 10.68, n = 5$) as compared to FT students ($M = 9.00, SD = 8.66, n = 3$). Although there was a higher reported gain both in knowledge and confidence from part-time students, there is no statistical difference ($p = > .05$) between the two groups: (a) knowledge – $t(6) = -3.96, p = 1.00$ (two-tailed); and (b) confidence – $t(6) = -.27, p = .60$ (two-tailed).

**Summer Camps**

2009 Summer Camps.

Summer camp scores indicated gains in knowledge and confidence at two of the three sites. Scores for the GIS/GPS camp indicated a gain in knowledge ($M = 1.00, SD = .55, n = 6$) and a gain in confidence ($M = 12.83, SD = 5.38, n = 6$). Scores for the Podcasting camp also indicated a gain in knowledge ($M = 1.85, SD = .82, n = 34$) and a gain in confidence ($M = 13.88, SD = 5.54, n = 34$). While scores for the Mobile Devices camp indicated a loss in knowledge as
measured by the post-test ($M = -0.61, SD = 0.92, n = 18$), scores indicated a gain in confidence ($M = 6.61, SD = 7.90, n = 18$).

2010 Summer Camps.

Summer camp scores indicated gains in knowledge at all three sites, and a gain in confidence at two of the three sites, as there were no scores recorded for one of the sites. Scores for the Podcasting camp indicated a gain in knowledge ($M = 1.43, SD = 0.79, n = 7$) and a gain in confidence ($M = 12.14, SD = 3.72, n = 7$). Scores for the Mobile Devices camp also indicated a gain in knowledge ($M = 1.22, SD = 1.04, n = 23$) and a gain in confidence ($M = 10.52, SD = 6.88, n = 23$). Scores for the Podcasting camp also indicated a gain in knowledge ($M = 0.33, SD = 0.52, n = 6$); however, no scores for the confidence pre and posttests were reported.

2011 Summer Camps.

Summer camp scores indicated gains in knowledge and confidence at all three sites. Scores for the Mobile Devices camp indicated a gain in knowledge ($M = 1.55, SD = 1.24, n = 9$) and a gain in confidence ($M = 4.33, SD = 6.67, n = 9$). Scores for the GIS/GPS camp also indicated a gain in knowledge ($M = 1.10, SD = 1.62, n = 20$) and a gain in confidence ($M = 16.75, SD = 8.62, n = 20$). Scores for the Podcasting camp also indicated a gain in knowledge ($M = 2.00, SD = 1.58, n = 5$) and a gain in confidence ($M = 11.20, SD = 5.02, n = 5$).

Motivated Strategies for Learning Questionnaire

On the MSLQ, 30 students took both the pre- and post-tests, with all questions answered: 17 students were in the treatment group, and 13 students were in the control group. Gain scores on the MSLQ indicated a loss in motivation for the treatment group ($M = -10.82, SD = 31.78, n = 17$), while the control group reported a slight gain in motivation ($M = 3.54, SD = 19.25, n = 13$). Although there was a drop in scores on the MSLQ treatment group, it was not statistically significant ($p > .05$), $t(28) = -1.44, p = .92$ (two-tailed) when both groups were evaluated through independent t-tests. The difference in decline between the two groups was approximately 1/2 of one standard deviation (Cohen’s $d = -0.54$).

Computer Attitude Questionnaire

On the CAQ, 63 students took both the pre- and post-tests, with all questions answered: 39 students were in the treatment group, and 24 students were in the control group. Gains scores on the CAQ indicated decreases in computer interest for the treatment group ($M = -5.26, SD = 9.70, n = 39$), while the control group reported a slight gain in interest ($M = 2.54, SD = 10.24, n = 24$). Although there was a drop in scores on the CAQ treatment group, the difference in decline between the two groups was not statistically significant ($p > .05$), $t(361) = -3.03, p = 1.00$ (two-tailed). The difference in decline between the two groups was approximately 3/4 of one standard deviation (Cohen’s $d = -0.78$).

TechLiteracy Assessment

On the TechLiteracy Assessment, 33 students took both the pre- and post-tests. As the raw data were not available from the testing company, it is not known whether students omitted items, so no assessments were eliminated from the dataset. Scaled gain scores indicated greater gains in technology skills for the treatment group ($M = 5.54, SD = 14.00, n = 13$) than for the control group ($M = -2.00, SD = 29.91, n = 20$). The difference between the two groups was statistically significant ($p < .01$), $t(28.80) = 0.975, p = .01$ (two-tailed).

Discussion

Did the Tri-IT after-school program spark the interest of the participating girls? Research results are mixed. Students gained both knowledge and confidence on most of the curriculum modules, an expected outcome. However, when attendance was factored in, students who did
not attend all sessions sometimes had greater gains in knowledge and/or confidence than students who attended all sessions, which was a surprising result. Because part-time students were there to take both the pre- and post-test, it may be that students coded as part-time actually missed very few sessions or that their instructors or fellow students helped them make up what they missed. It does appear that students gained greater confidence than knowledge, but that may be an indicator of the assessments themselves rather than of what students actually learned and retained. As these assessments were developed by project staff and consultants and had never been tested before, their administration in this study was essentially a pilot test of each instrument.

The treatment group students had greater gains in scores on the TechLiteracy Assessment, and outcome that was expected, as those students had 280 hours of technology instruction that the control group did not have. The Tri-IT staff found it surprising that the difference in scores between the two groups was not greater.

Even though the differences in scores were not statistically significant, the finding that students in the treatment group actually showed decreases in motivation, as measured by the MSLQ, and decreases in computer interest, as measured by the CAQ, while the control group showed gains in motivation and computer interest was paradoxical and is counterintuitive. The students who took the MSLQ and CAQ were students who had persisted from the beginning of the program to the end. Their continued attendance in this voluntary program would seem to be an indicator itself of their interest and motivation.

The paradoxical results could be attributed to students meeting twice a week for two years was too much computer information for the treatment group or that they were wary of taking the many assessments, which were administered during the program. A rival hypothesis is that the timing of these post-tests was not optimal. As noted by Lavrakas (2008) and Tomal (2010), the very end of the school year, when students are ready for their summer vacation, is not the best time to administer such assessments.

Another possible explanation for these results is the Hawthorne effect. Perhaps when students first started the program, they marked higher scores due to social desirability. Once they had been in the program for a while, the treatment group students may have become desensitized and felt they could answer questions bluntly, hence the lower scores. It is also possible that, after being exposed to many hours of technology curriculum, participants found that it was not as interesting in reality as they thought it would be and, consequently, they were less interested and felt less motivated to study it further.

An alternative answer may also be that because the control group students were highly motivated to succeed, they were essentially competing with the treatment group students. The control group students had applied to be in the program as well, as an indicator of their interest in technology, and had also persisted to the end of the program, without receiving any technology instruction in the program. Project staff continually expressed appreciation to the control group students because their participation was very important to the NSF research project and these students felt that they were an integral part of the study.

**Recommendations for Further Research**

Assessing the interest and motivation of students who participate in after-school technology programs is important measure in determining the impact and effectiveness of such programs. Therefore, it is crucial to assess with accuracy these variables. Because the time of year when an assessment is given may play an important role in the results, further research on the optimal time to assess students’ interest and motivation is recommended.
References


Motivation in the Math Classroom: A Ticket to Success

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Motivating students is one of the most arduous tasks a new teacher is asked to do. This research was developed to help the professionally young teachers have a positive start to their career. Hopefully, this in part will be one of the best pieces of advice they will receive to help them become career educators as well as allow them to have very successful students. A huge percentage of teachers leave the profession within the first five years of teaching and research shows that not very much is done to retain them.

This work focuses on motivation in the mathematics classroom; however, much can be applied to other disciplines in the educational environment. If the students are motivated, they will try harder, learn more and even enjoy the mathematics class, which makes an easier and more productive teaching environment. With an easier, happier and more productive teaching and learning environment it becomes a win-win situation for all concerned. Students today are faced with test after test. They do not even have time to grasp concepts if they are not very quick learners. Couple this with the fact that many students do not really like math and you have a very non-productive and negative situation.

The work of two foremost mathematics professors and authorities in the research stands out. Posamentier and Kulik seem to have the most workable information of all. They do not give a formal definition or formula for motivation; however, they do propose the best teachers can and do have motivational activities. These activities should begin each and every class in a way in which it creates interest and allows the students to use their own genuine enthusiasm to be apparent and remain enthralled during the upcoming lesson.

Motivation appears to be a manner in which to channel students’ interests to a specific topic to be learned. Activities can and do bring the students together as a group unlike many beginning activities which have a tendency to actually divide the students into group by academic ability. Good motivational activities are not intended to let the higher ability students work the problems while other students sit by. These lower ability students often just drift into another world of thought which is a long distance from the dreaded mathematics class their body is trapped in. When used on a regular basis the motivational ideas can even have many students declaring that coming to mathematics class can be and is fun. The mathematics class is no longer the pain that it was believed to be in the previous years.

Each and every teacher should have as his/her goal to teach an effective lesson every single time he/she steps into the mathematics classroom. With this in mind it is especially important secondary-mathematics teachers have the tools to motivate and enrich their classes. Teachers need to be able to engage and interact with the students to motivate or create interests and desires to learn mathematics. These various techniques when applied may peak the students’ interest. Many students really do not have the desire to cross the threshold into the mathematics world; however when teachers are able to use the motivational techniques, at least many will learn to not have such a fear of the discipline. It is very important that teacher do not only focus on motivational activities which are of interest to them personally. Teachers as well as students can venture into the world of unknowns. Students love helping the teacher see the solution or probe with the teacher for the solution to a mathematical challenge.

There are two types of motivation, intrinsic and extrinsic. Each method has a very important part in the motivation of students. Extrinsic is outside the person therefore it will be in the form of rewards, tokens, special privileges or other things which are not in the student’s control. Extrinsic motivation methods are usually much more effective on the younger student. Extrinsic motivation usually results in something the student can actual hold in his/her hand.
Intrinsic motivation is from within the person. The student may be one who strives for task-related goals or even to out-perform peers therefore seeking an ego related goal. Many times the intrinsic motivation may be as simple as a few words of comments from a teacher or peer. However, the student’s earlier positive and/or negative experiences have a great influence on the degree to which either type of motivation is valued (D’Amato 1993).

Another challenge for the teacher is to capitalize on the students’ style of learning and the methods of motivation which compliments each student; thus enabling the student to reach his/her ultimate goal. By achieving this, the student will become a success and happy student of mathematics. The first few minutes of each class at the secondary level are usually lost as the teacher attends to administrative tasks. By the time these tasks are finished, a poor tone for mathematics has been set. This same situation occurs in the elementary classroom at the beginning of the day. Students come in ready to learn only to be told to sit down and be quiet while the teacher does administrative tasks. If a student saw or heard something on the way to school and is eager to try to determine a solution by the time these administrative tasks are finished, the student may have forgotten, decided it is not worth the effort, etc. thus a teaching opportunity has been lost. In addition, most likely the student is now in a mood that he/she does not even want to do any academics.

Many times it is now difficult to get students on track and involved in the lesson. The students have been visiting or doing other tasks. In an effort to transition from the boring administrative tasks to the lesson, many motivational (not tricks) ideas can be incorporated into the classes to help the students not only enjoy but to be successful in the mathematics class.

Nine techniques have been suggested Posamentier and Kulik.

- Indicate a Void in Students’ Knowledge
- Discover a Pattern
- Present a Challenge
- Entice the Class with a “Gee-whiz” Amazing Mathematical Result
- Indicate the Usefulness of a Topic
- Use Recreational Math
- Tell a Pertinent Story
- Get Students Actively Involved in Justifying Mathematical Curiosities
- Employ Teacher-Made or Commercially Prepared Materials

While these techniques are very important they definitely are not an answer to all. Many other factors must be considered within and in addition to each (Newman, 1990; Randhawa, Beamer & Lundgberg, 1993; Stevenson, Lee Chen, Stigler, Hsu & Kitamura, 1990). The research has found many however, only a few can be discussed in these proceedings.

Gender is a factor that must be considered. Some of the implications connecting mathematics and gender are just perceived and other are real however, no child should be stereotyped and not given a chance in the mathematics classroom due to his/her gender. Family beliefs can also be intertwined with gender concerning students being given a chance to study and/or enjoy mathematics. In some families, only the males are given a chance to study mathematics while the males are not given a chance to study music or other fine arts (Entwisle & Baker ,1983; Hess, Chih-Mei & McDevitt, 1987).

Ethnicity can be a factor as many truly believe that some ethnic groups are superior in mathematics over other groups. It may be in all concepts or just in specific ones such as ‘that group can always do anything with money’. The specifics concepts ethnic biases seem to be at
this time in the research much more derogatory than the bias again the entire discipline of mathematics. This bias is the prey of many racial jokes.

Sociocultural issues come into play, also. The dynamic interactional process with students, teachers, parents, administrators, community members and even policymakers present major factors in the motivation in the classroom.(Watson-Gegeo & Gegeo, 1992). It is believed although not documented that peer attitudes and their motivational influences play a significant role in the student’s metacognitive knowledge in their mathematical problem solving (Carr 1995).

Some students need a hands-on approach in the classroom. Without the manipulatives for making connections and motivating her/him, it’s very unlikely the students will gain the intended information by just sitting and listening. Learning styles must and do plan a very important part in the student’s learning.

After the above mentioned factors as well as many others are considered, the teacher is ready to develop motivational activities for the students. Although not mentioned but should be considered is the interest of the students. For example if it is a rural area and most of the students are active in 4-H or farm projects, problems focused on assisting them in this area would be most likely appreciated. By the same token, students in a community with an auto manufacturing plant may be more interested in something to do with autos.

In conclusion, one must remember if you are to motivate the students, you as the teacher must have enthusiasm, knowledge and be honest. The first two are fairly easy to understand however, honesty might be the most important of all and most difficult to understand. If one misleads students with the purpose of misleading them, the students will know it. If one does not know the answer to a problem, one must admit is and discuss with the students about seeking the solution. Let the students know that while the teacher does have more experience with mathematics than students it is possible that he/she does not know the answer for every question posed. Motivation can and should be a two way street. The teacher can and should motivate the students but the students definitely motivate the teacher in the learning of mathematics or further learning of mathematics. Motivating students should be one of the most important concerns when preparing a lesson. When students are interested, they become receptive learners.
References:
Crisis Intervention Training: Impact on First Responders’
Knowledge, Personal Feelings, Action Tendencies, and
Professionalism

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Encounters between law enforcement and the mentally ill have led to many unfortunate, even tragic events in the past. While taking action to completely reduce the occurrence of these types of events is unrealistic, we can at least educate ourselves and first responders about such encounters, and about mental illness in general.

Crisis Intervention Training (CIT) programs have been around for many years. Advocates for such programs often point to a police shooting in Memphis (NAMI, n.d.), and the response of the Memphis community, as the birth of the CIT movement. A unique partnership was formed that involved local law enforcement, mental health agencies, family and consumer advocacy groups (e.g., the National Alliance on Mental Illness, NAMI), and educational institutions (the University of Memphis, the University of Tennessee Medical School). Subsequently, such partnerships when formed elsewhere, have been said to follow the “Memphis Model”.

The original CIT training program has been refined over time. Local adopters have some flexibility in delivery means and choice of instructors, but a fairly standardized 40-hour curriculum has emerged. That curriculum (NAMI, n.d.) includes the following modules: Basic information about mental illness; information on how to recognize instances of mental illness; information about local mental health systems; information about local laws with respect to mental illness; verbal de-escalation training; role-playing exercises; and, dialogue with the mentally ill and families. Testing and certification complete the training course.

The goals of CIT training are straightforward. First responders should feel prepared, and be prepared, when they encounter an individual in a mental health crisis. Crisis calls that involve psychiatric cases should be de-escalated. Responders, the public, and the mentally ill should all be safer. The mentally ill person should get into the treatment and recovery system faster. Options other than arrest and booking should be attempted, saving responders’ time, and saving the affected families and community money.

In line with these goals, there have been documented successes for CIT programs. Significant reductions in arrests and re-arrests have been reported (Steadman, Dean, Borum, & Morrissey, 2001; Sheridan & Teplin, 1981). Quick diversion into mental health system seems to have improved treatment outcomes and time to stabilization/recovery (Teller, Munetz, Gill, & Ritter, 2006). Fewer officer injuries resulting from mental illness calls have been reported (Dupont, Cochran,& Bush, 1999). The number of SWAT backup calls has been shown to drop (Bower & Pettit, 2001). Officer time to respond to other enforcement and community needs has been shown to improve (i.e., decrease; Borum, Deane, Steadman, & Morrissey, 1998). In at least one location (Albuquerque), overall instances of police shootings have declined (NAMI, n.d.).

Mimicking the Memphis experience, unfortunate encounters between responders and the mentally ill have often been the impetus for local communities to deliver their own CIT training programs using the Memphis Model. Such an event in northern Idaho led to a program that serves the northern five counties of Idaho, an area best described as the upper-half of the state’s panhandle. Partners include the University of Idaho, NAMI, and multiple city, county, and state law enforcement agencies. The area is a mixture of suburban (the Spokane - Coeur d’Alene corridor) and rural settings, with the Coeur d’Alene Indian Reservation as its southern boundary. The first CIT academy was held in 2009-2010. This study was developed from the evaluation data for that academy.

CIT academy students were the study’s participants. They completed a survey prior to and following the academy, and were invited to do so again six months later. Uniquely, we tried to understand and parse the various internal changes that might be behind the more concrete outcomes already mentioned (for a start on this line of inquiry, see Compton, Esterberg, McGee,
Kotwicki, & Oliva, 2006). For instance, behind the diversions into treatment, the fewer SWAT calls, the fewer arrests, and so on, there must be changes in what responders know, how they feel about the mentally ill, their action tendencies, and their professional motivations. We expected that, following training, responders would know more about mental illness, would have more accepting attitudes about the mentally ill, would be predisposed to act differently when encountering the mentally ill (e.g., treatment vs. booking), and that responders would be more motivated to continue learning and upgrading their skills with respect to such encounters.

**Method**

**Participants**

The participants were 31 experienced first responders from a number of agencies in the northern five counties of Idaho. Their primary goal was to complete the first week-long Crisis Intervention Training Academy held in northern Idaho. Invitations were sent to all law enforcement agencies in the region. Most were law enforcement officers, state troopers, or sheriff’s deputies, however two were emergency medical responders. The participants’ area of operation is primarily rural, with significant sub regions that could be considered suburban.

**Procedure**

The participants were asked to complete a short paper-and-pencil questionnaire on the first day of the Academy, before any training. They completed the same questionnaire on the last day of the Academy on completion of training, and then again six months later.

The instrument included some general demographic and agency questions to confirm experience and agency. The remainder of the questionnaire was prepared following procedures used by the Treatment Advocacy Center (Treatment Advocacy Center, n.d.), adapted from a survey developed by Policy Research Associates, Inc., University of North Carolina-Duke Program on Mental Health Services Research. Participants read the following scenario from that previous work:

An officer receives a call from a mother of a 28-year-old male due to a possible overdose on pills. His mother reports that for the past two weeks, David has been feeling really down. He wakes up in the morning with a flat, heavy feeling that sticks with him all day long. He isn’t enjoying things the way he normally would. In fact, nothing gives him pleasure. Even when good things happen, they don’t seem to make David happy. He pushes on through his days, but it is really hard. The smallest tasks are difficult to accomplish. He finds it hard to concentrate on anything. He feels out of energy and out of steam. And even though David feels tired, when night comes, he can’t go to sleep. David feels pretty worthless and very discouraged. His family has noticed that he hasn’t been himself for about the last month, and that he has pulled away from them. David just doesn’t feel like talking.

They then responded to 31 questions that dealt with how they might have responded to the character in the scenario, and with their own understanding of mental illness. The instrument is provided as an Appendix to this paper.

**Results**

**Participants/Demographic Data**

Participants ranged in age from mid-twenties to early sixties. The distribution was as follows: Twenties: 4, thirties: 7, forties: 7, fifties: 9, sixties: 2. Seven of the 29 participants were female. Nine participants held patrol or equivalent rank, 11 held supervisory ranks, and the remainder did not specify. Years of service in law enforcement ranged from 2-5 years (8 participants) all the
way to over 20 years (6 participants), with the average being about 10 years. All participants were Caucasian with the exception of two Native American officers. Ninety-three percent of participants completed high school; 34% reported completion of “some college”; 17% completed an associate’s degree; 14% completed a bachelor’s degree; 7% reported completion of a graduate degree or some graduate-level courses.

Two key questions ended the demographic section of the questionnaire. In the first, officers were asked whether, as an officer, they had ever dealt with someone with an obvious mental illness. Ninety percent said “yes”. Then they were asked whether, as a police officer, they had ever arrested someone with an obvious mental disorder. Seventy-five percent indicated “yes” (the three participants without arrest powers were not included in this statistic).

Survey Results

As noted, a 31-item questionnaire adapted from a procedure used by the Treatment Advocacy Center served as the core of our evaluation procedure. Written in the form of statements to which they could agree or disagree, each item asked the participant to speculate on the main character’s (David) condition and circumstances, to put themselves into the position of a responder on the scene, and to assess some of their general and particular understandings of mental illness. Next to each item was a 4-point scale, where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree.

Of the initial 29 participants, 23 were present and completed the instrument on the first day and immediately following the Academy. (In difficult economic times, agencies are sometime thinly staffed. Some responders present on the first day were called back to regular duties to ensure adequate coverage in the jurisdictions. These responders were given the opportunity to complete a later academy.) The 6-month follow-up was sent by regular mail to the 23 participants who completed the Academy. Ten of these participants responded, for a response rate of 43%. In the results reported below, the one week (pre- and post-) evaluation included the 23 participants who completed the week. The six month follow up comparisons were limited to only the 10 participants who returned their surveys.

The items on the instrument were grouped into four categories. The categories reflected whether the items tapped participants’ knowledge about the origins and character of serious mental illness (Knowledge and origins, KO, items 1-6, 14, and 15), participants’ personal feelings about interactions with the seriously mental ill, on or off the job (Personal feelings, PF, items 7-13), participants’ action tendencies should a crisis be encountered (Action tendencies, AC, items 16-23, 30 and 31), and participants’ self-assessment of their personal motivation and preparedness, with respect to both knowledge and emotion, to handle crisis situations (Professional motivation, PM, items 24-31).

Generally, the items were written in such a way that agreement with the statement would indicate greater sophistication (emotional readiness, knowledge, actions, open-mindedness, etc.) in approaching and handling crisis situations. However, items 1, 3, 6, 14, 15, 27, and 28 were reverse-worded. Reverse-wording is sometimes used in questionnaires to minimize pattern responding; it also tends to keep participants more alert to question wording. Appropriate scoring adjustments were made to ensure that the higher the score, the greater the sophistication.

The mean responses for each category, over the three testing sessions, are provided in Table 1.

Knowledge and origins (KO).

For each participant, the scores on the eight KO items were summed and divided by eight to compute a KO score. The mean of the pretest KO scores was 2.89. Given a theoretical mean of 2.5 on the 4-point scale (adding each of the four possible scores and dividing by four), this
means that participants were slightly more likely than chance to indicate that they had knowledge about serious mental disorders. The mean of posttest KO scores jumped up to 3.31, demonstrating a significant improvement in KO scores $t(50) = 4.12, p < .001$, (for KO and all other variables, pretest vs. posttest comparisons were two-tailed; informed by the pretest-posttest analyses, pretest - 6 month and posttest - 6 month comparisons were one-tailed). The mean KO score after six months was 3.25, indicating that the improvement in KO scores persisted. The 6-month KO scores were significantly higher than pretest scores, $t(37) = 2.47, p < .01$, and were not statistically different from posttest scores.

**Personal feelings (PF).**

PF scores were the lowest of the subscales, which was not unexpected given the very personal nature of the items (e.g., willingness to have Dave as a co-worker, or in-law, or friend, etc.). For each participant, the score on the seven PF items were summed and divided by seven to compute a PF score. The mean of the pretest PF scores was 2.47. Given a theoretical mean of 2.5 on the 4-point scale, this means that participants were slightly less likely than chance to indicate that they would be open to having a personal/professional relationship with someone like Dave. The mean of posttest PF scores jumped up to 2.88, demonstrating a significant improvement in PF scores, $t(50) = 2.32, p < .03$. The mean PF score after six months was 2.86, indicating that the improvement in PF scores persisted. The 6-month PF scores were significantly higher than pretest scores, $t(37) = 1.72, p < .05$, and were not statistically different from posttest scores.

**Action tendencies (AC).**

For each participant, scores on the ten AC items were summed and divided by ten to compute an AC score. The mean of the pretest AC scores was 3.19. Given a theoretical mean of 2.5 on the 4-point scale, this means that participants were more likely than chance to indicate that they would be able to take appropriate legal and compassionate actions with Dave and Dave’s family (or someone like Dave). The mean of posttest AC scores jumped up to 3.55, demonstrating a significant improvement in AC scores $t(50) = 2.64, p < .02$. The mean AC score after six months was 3.55, indicating that the improvement in AC scores persisted. The 6-month AC scores were significantly higher than pretest scores, $t(37) = 2.03, p < .03$, and were not statistically different from posttest scores.

**Professional motivation (PM).**

Among the self assessment items, one stood out because it consistently, and by far, produced the lowest scores. That item was number 27 on the questionnaire, and it assessed participants’ anger and frustration when confronting the mentally ill (pretest-posttest-6 month means were 2.03, 2.00, and 2.10, indicating stable agreement that crisis encounters led to feelings of frustration and anger). The other items in this category dealt with participants’ desire for continued training, belief that there is more they could do to be more helpful, belief that encountering and dealing with the mentally ill can help them be better responders, willingness to be a leader in this area, and ability to keep crisis encounters job from affecting their home lives. Item 27 was unique in its attempt to directly assess emotional reaction. Logically, responders could agree that confronting the seriously mentally ill made them angry and frustrated, yet also agree that, as professionals, they were willing to be more helpful, willing to continue their crisis training, and willing to learn from crisis encounters. Therefore, item 27 was dropped from PM analyses.

For each participant, scores on the remaining five PM items were summed and divided by five to compute a PM score. The mean of the pretest PM scores was 3.41. Given a theoretical mean of 2.5 on the 4-point scale, this means that participants were more likely than chance to
indicate that they would recognize the importance of continuous crisis training, that they were willing to assume some leadership in this regard, that they felt they learned from crisis encounters, and so on. The means of posttest and 6-month PM scores, 3.42 and 3.46, respectively, were virtually unchanged from the pretest scores. There were no significant differences among these three means. The lack of change from pretest to posttest and beyond is not worrisome. The goal of crisis training is not to motivate but to educate. The data show that our participants were already highly motivated before training, and they sustained that motivation. (As a conservative measure, the analyses were repeated with item 27 included in PM scores. All three means were lowered slightly, but the pattern remained, and there were no significant differences among means.)

Discussion

Figure 1 captures the rather dramatic improvement in KO, PF, and AC scores from the pretest to the post-training posttest, and it shows that these changes persisted over time. It also shows high levels of initial personal motivation on the part of participants, with persistence of that motivation over time. Overall, the results suggest a successful training academy, and it offers some insight into the changes within responders that may account for the positive changes in their behavior, documented in other studies. Some precautions are in order however. First, the high initial levels of motivation by our participants, while heartening, may not be indicative of how an average, indifferent participant might benefit from a crisis training academy. Obviously, motivation has an impact on training (it increases attentiveness, it increases study time, etc.). There is no reason to believe that indifferent responders would not benefit from crisis training, but that is unknown. The success of CIT training would be more apparent if it was applied to individuals who were not volunteers, such as might occur in standard law enforcement academy training, or as part of a broader continuing education mandate. The effect of high versus low levels of initial motivation levels is, itself, an interesting question for the future. Perhaps those with the lowest starting motivation benefit the most.

Second, like many mail-in responses, our 6-month follow-up response rate (43%) was not as high as we would have liked. Still, 43% is acceptable as mail-in response rates go. Moreover, the consistency of responses from the posttest to the 6-month follow-up suggests that the 6-month follow-up data is indicative of the academy’s longer-term impact.

Internal changes in first responders, i.e., what they know, what they believe, how they see themselves, seem to be the likely forces behind the more humane and productive responses documented in communities that have provided CIT training. Other benefits have yet to be explored. Visible, notable, humane reactions by first responders could impact public perception and knowledge. Avenues to explore include changes, for the better, in public perception of the mentally ill; and changes, also for the better, in how then public and the mentally ill view their responders. Finally, we are unaware of any research that shows unequivocally that responders’ CIT training “rubs off” on colleagues in their agencies who did not undergo the training. We believe this is a likelihood, and is consistent with existing findings, but await a confirming study.

References


**Authors Note**

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**Figure 1:** Illustrated Patterns of Pretest-Posttest and Follow-up Responses
Table 1: Mean Responses in Each Response Category

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
<th>6 months</th>
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<tr>
<td>KO</td>
<td>2.89</td>
<td>3.31</td>
<td>3.25</td>
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<tr>
<td>PF</td>
<td>2.47</td>
<td>2.88</td>
<td>2.86</td>
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<td>AC</td>
<td>3.19</td>
<td>3.55</td>
<td>3.55</td>
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<td>PM</td>
<td>3.41</td>
<td>3.42</td>
<td>3.46</td>
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Appendix: Survey Questionnaire

Please mark the square the best matches your agreement with the following statements:

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<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>1.</td>
<td>David’s situation might be caused by his own bad character.</td>
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<td>2.</td>
<td>David’s situation might be caused by a chemical imbalance.</td>
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<td>3.</td>
<td>David’s situation may have been caused by the way he was raised.</td>
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<td>4.</td>
<td>David’s situation may have been caused by stressful circumstances in his life.</td>
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<td>5.</td>
<td>Davis’s situation may have been caused by a genetic or inherited problem.</td>
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<td>6.</td>
<td>David may likely do something violent toward other people.</td>
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<td>7.</td>
<td>I would likely be willing to live next door to David.</td>
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<td>8.</td>
<td>I would likely be willing to spend an evening socializing with David.</td>
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<td>9.</td>
<td>I would likely be willing to make friends with David.</td>
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<td>10.</td>
<td>I would be likely to work closely with David on the job as a colleague.</td>
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<td>11.</td>
<td>I would likely be willing to have David marry into my family.</td>
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<td>12.</td>
<td>I would likely be willing to interact with someone like David.</td>
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<td>13.</td>
<td>I would feel confident talking to someone like David about his symptoms.</td>
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<td>14.</td>
<td>A person with a mental illness is more likely to be aggressive than a person with no mental illness.</td>
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<td>15.</td>
<td>A person with a mental illness is more likely to commit a violent crime than a person with no mental illness.</td>
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<td>16.</td>
<td>I would feel confident at calming down someone like David.</td>
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<td>17.</td>
<td>I would feel confident at bringing someone like David into a mental health facility.</td>
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<td>18.</td>
<td>I would feel confident interacting with family members of someone like David.</td>
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<td>19.</td>
<td>I would feel confident talking to someone like David about his illness.</td>
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<td>20.</td>
<td>I would feel confident de-escalating a conflict with someone like David.</td>
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<td>21.</td>
<td>I would feel confident making a referral to services to someone to David.</td>
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<td>22.</td>
<td>I would feel confident taking to someone like David about his medications.</td>
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<td>23.</td>
<td>I would feel confident discussing someone like David with a mental health professional.</td>
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<td>24.</td>
<td>I want more training to understand the best way to work with people with mental illness.</td>
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<td>25.</td>
<td>I would like to be a leader in improving the law enforcement’s interactions with people with mental illness.</td>
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<td>26.</td>
<td>I believe interacting effectively with people with mental illness will make me a better police officer.</td>
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<td>27.</td>
<td>Sometimes working with mentally ill individuals is more frustrating and it’s hard not to get angry.</td>
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<td>28.</td>
<td>I am more likely to be bothered by interactions with a mentally ill person and “take it home with me” after work.</td>
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<td>29.</td>
<td>There are things that I could do to be more helpful when working with a mentally ill person.</td>
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<td>30.</td>
<td>I feel confident in my ability to assist a mentally ill person when I have been called to a scene.</td>
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<td>31.</td>
<td>I feel confident in sharing my knowledge about working with mentally ill people with the officers I work with in my department.</td>
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Understanding How the Gradual Democratization of the United States Constitution Impacted the 2008 Presidential Election

Darrial Reynolds
South Texas College
Introduction

This paper discusses how the gradual democratization of the United States Constitution impacted the 2008 presidential election. This paper focuses on three of the five constitutional amendments that led to the expansion of the electorate. The Fifteenth Amendment (1870) prohibited discrimination on the basis of race in determining voter eligibility. The Nineteenth Amendment (1920) gave women the right to vote. The Twenty-sixth Amendment (1971) lowered the voter eligibility age to 18. This paper concludes with an analysis of how the expansion of the electorate by the Fifteenth Amendment (1870), Nineteenth Amendment (1920), and Twenty-sixth Amendment (1971) impacted the 2008 presidential election.

A record 131 million people voted in the 2008 presidential election and this was 63.6% of the voting age citizens. The voter turnout rate was 66.1% for Whites, 65.2% for Blacks, 49.9% for Hispanics, 47.0% for Asians, 65.7% for Women, 61.5% for Men, 51.1% for people ages 18 to 29, 60% for people ages 30 to 44, 69% for people ages 45 to 64, and 70% for people ages 65 and older. Among the voters in the 2008 presidential election, 12.1% were Blacks, 7.4% were Hispanics, 2.5% were Asians, 76.3% were Whites (lowest in history), 53% were Women, 47% were Men, 18% were ages 18 to 29, 29% were ages 30 to 44, 37% were ages 45 to 64, and 16% were ages 65 and older (The United States Elections Project, 2008).

Amendment 15 - Race No Bar to Vote

The Fifteenth Amendment (1870) first ensured the right of black men to vote and later the right of all men to vote regardless of race. The Fifteenth Amendment (1870) is a very good amendment, but it had little practical effect for quite some time because the Southern states found legal and un-legal ways to keep blacks and other minorities from voting. The Congress proposed the Fifteenth Amendment on February 26, 1869, and it was ratified by the states in 342 days on February 3, 1870 (Maddex, 2008).

Voter Turnout By Ethnic Men Groups

In the 2008 presidential election, the voter turnout rate was 64.2% for White Men, 60.7% for Black Men, 47.9% for Latino Men, and 47.1% for Asian Men. Among the voters in the 2008 presidential election, 5% were Black Men, 4% were Latino Men, 1% were Asian Men, and 36% were White Men. Among the Black Men in the 2008 presidential election, 95% voted for Barack Obama and 5% voted for John McCain. Among the Latino Men in the 2008 presidential election, 64% voted for Barack Obama and 33% voted for John McCain. Among the Asian Men in the 2008 presidential election, 64% voted for Barack Obama and 32% voted for John McCain. Among the White Men in the 2008 presidential election, 41% voted for Barack Obama and 57% voted for John McCain (The United States Elections Project, 2008).

Voting By Ethnic Men Groups In Nine Key States

Nine states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) changed party allegiance from the 2004 election because each had voted for Republican Bush in 2004 and voted for Democrat Obama in 2008. Nevada (5), Colorado (9), New Mexico (5), Iowa (7), Indiana (11), Ohio (20), Virginia (13), North Carolina (15), and Florida (27) accounted for 112 of the 365 Electoral Votes won by Obama (Lopez, 2009).

The 2008 Nevada Electorate included White Men (34%), Black Men (4%), and Latino Men (7%). Among the White Men, 40% voted for Obama and 57% voted for McCain. Among the Black Men, 93% voted for Obama and 5% voted for McCain. Among the Latino Men, 76% voted for Obama and 21% voted for McCain. The 2008 Colorado Electorate included White Men (41%), Black Men (2%), and Latino Men (5%). Among the White Men, 48% voted for Obama and 50% voted for McCain. Among the Black Men, 95% voted for Obama and 5%
voted for McCain. Among the Latino Men, 61% voted for Obama and 38% voted for McCain. The 2008 New Mexico Electorate included White Men (28%), Black Men (1%), and Latino Men (16%). Among the White Men, 43% voted for Obama and 55% voted for McCain. Among the Black Men, 95% voted for Obama and 5% voted for McCain. Among the Latino Men, 65% voted for Obama and 34% voted for McCain (CNN.com Election Center, 2008).

The 2008 Iowa Electorate included White Men (43%), Black Men (2%), and Latino Men (2%). Among the White Men, 49% voted for Obama and 49% voted for McCain. Among the Black Men, 93% voted for Obama and 6% voted for McCain. Among the Latino Men, 64% voted for Obama and 33% voted for McCain. Essentially, the 2008 Indiana Electorate included White Men (41%), Black Men (3%), and Latino Men (2%). Among the White Men, 41% voted for Obama and 57% voted for McCain. Among the Black Men, 89% voted for Obama and 11% voted for McCain. Among the Latino Men, 77% voted for Obama and 23% voted for McCain. Essentially, the 2008 Ohio Electorate included White Men (41%), Black Men (5%), and Latino Men (1%). Among the White Men, 45% voted for Obama and 53% voted for McCain. Among the Black Men, 98% voted for Obama and 2% voted for McCain. Among the Latino Men, 64% voted for Obama and 33% voted for McCain (CNN.com Election Center, 2008).

The 2008 Virginia Electorate included White Men (32%), Black Men (10%), and Latino Men (2%). Among the White Men, 37% voted for Obama and 61% voted for McCain. Among the Black Men, 89% voted for Obama and 11% voted for McCain. Among the Latino Men, 65% voted for Obama and 34% voted for McCain. The 2008 North Carolina Electorate included White Men (35%), Black Men (9%), and Latino Men (1%). Among the White Men, 32% voted for Obama and 67% voted for McCain. Among the Black Men, 87% voted for Obama and 13% voted for McCain. Among the Latino Men, 64% voted for Obama and 33% voted for McCain. Essentially, the 2008 Florida Electorate included White Men (35%), Black Men (5%), and Latino Men (6%). Among the White Men, 42% voted for Obama and 55% voted for McCain. Among the Black Men, 95% voted for Obama and 5% voted for McCain. Among the Latino Men, 60% voted for Obama and 40% voted for McCain (CNN.com Election Center, 2008).

Votes By Ethnic Minority Men Impacted The Election

In 2008, the majority of White Men voted for McCain in each of the 9 states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) that changed party allegiance from the 2004 election. Essentially, the majority of Men in each Ethnic Minority Men Group voted for Obama in each of the 9 states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) that changed party allegiance from the 2004 election. Importantly, the votes of the Ethnic Minority Men in Nevada (5), Colorado (9), New Mexico (5), Iowa (7), Indiana (11), Ohio (20), Virginia (13), North Carolina (15), and Florida (27) did have an impact on the 2008 presidential election of Barack Obama because their votes helped Barack Obama win their states and the 112 Electoral Votes for winning the 9 states.

Amendment 19 - Women's Suffrage

The Nineteenth Amendment (1920) ensures women the right to vote. The original Constitution did not give women the right to vote. On June 4, 1919, Congress proposed the 19th Amendment and the states ratified it after 441 days on August 18, 1920 (Maddex, 2008).

Voter Turnout By Gender Groups

Essentially in the 2008 presidential election, the voter turnout rate was 65.7% for Women and 61.5% for Men voted. Importantly, Women made up 53% and Men 47% of the record 131 million people who voted in the 2008 presidential election. Of the Men voters, 49% voted for
Obama and 48% voted for McCain. Of the Women voters, 56% voted for Obama and 43% voted for McCain (The United States Elections Project, 2008).

**Voting By Gender Groups In Nine Key States**

Nine states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) changed party allegiance from the 2004 election because each had voted for Republican Bush in 2004 and voted for Democrat Obama in 2008. Nevada (5), Colorado (9), New Mexico (5), Iowa (7), Indiana (11), Ohio (20), Virginia (13), North Carolina (15), and Florida (27) accounted for 112 of the 365 Electoral Votes won by Obama (Lopez, 2009).

Essentially, the 2008 Nevada Electorate had 48% Men and 52% Women. Among the Men voters, 51% voted for Obama and 47% voted for McCain. Among the Women voters, 59% voted for Obama and 38% voted for McCain. Importantly, the 2008 Colorado Electorate had 50% Men and 50% Women. Among the Men voters, 49% voted for Obama and 50% voted for McCain. Among the Women voters, 56% voted for Obama and 41% voted for McCain. Essentially, the 2008 New Mexico Electorate had 48% Men and 52% Women. Among the Men voters, 54% voted for Obama and 45% voted for McCain. Among the Women voters, 59% voted for Obama and 39% voted for McCain (CNN.com Election Center, 2008).

Essentially, the 2008 Iowa Electorate had 47% Men and 53% Women. Among the Men voters, 50% voted for Obama and 47% voted for McCain. Among the Women voters, 55% voted for Obama and 43% voted for McCain. Importantly, the 2008 Indiana Electorate had 47% Men and 53% Women. Among the Men voters, 47% voted for Obama and 52% voted for McCain. Among the Women voters, 52% voted for Obama and 47% voted for McCain. Essentially, the 2008 Ohio Electorate had 48% Men and 52% Women. Among the Men voters, 51% voted for Obama and 48% voted for McCain. Among the Women voters, 59% voted for Obama and 45% voted for McCain (CNN.com Election Center, 2008).

Essentially, the 2008 Virginia Electorate had 46% Men and 54% Women. Among the Men voters, 51% voted for Obama and 47% voted for McCain. Among the Women voters, 55% voted for Obama and 43% voted for McCain. Importantly, the 2008 North Carolina Electorate had 46% Men and 54% Women. Among the Men voters, 43% voted for Obama and 56% voted for McCain. Among the Women voters, 55% voted for Obama and 44% voted for McCain. Essentially, the 2008 Florida Electorate had 74% Men and 53% Women. Among the Men voters, 51% voted for Obama and 47% voted for McCain. Among the Women voters, 52% voted for Obama and 47% voted for McCain (CNN.com Election Center, 2008).

Essentially, the 2008 Virginia Electorate had 46% Men and 54% Women. Among the Men voters, 51% voted for Obama and 47% voted for McCain. Among the Women voters, 53% voted for Obama and 46% voted for McCain. Importantly, the 2008 North Carolina Electorate had 46% Men and 54% Women. Among the Men voters, 43% voted for Obama and 56% voted for McCain. Among the Women voters, 55% voted for Obama and 44% voted for McCain. Essentially, the 2008 Florida Electorate had 74% Men and 53% Women. Among the Men voters, 51% voted for Obama and 47% voted for McCain. Among the Women voters, 52% voted for Obama and 47% voted for McCain (CNN.com Election Center, 2008).

**Votes By Women Impacted The Election**

In 2008, the majority of Men voted for Obama in 6 states (Nevada, New Mexico, Iowa, Ohio, Virginia, and Florida) that changed party allegiance from the 2004 presidential election. In 2008, the majority of Men voted for McCain in 3 states (Colorado, Indiana, and North Carolina) that changed party allegiance from the 2004 election. In 2008, the majority of Women voted for Obama all 9 states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) that changed party allegiance from the 2004 presidential election. Importantly, the votes of the women in Colorado (9), Indiana (11), and North Carolina (15) helped Obama win their states and the 35 total Electoral Votes for winning the three states.

**Amendment 26 - Voting Age Set to 18 Years**

The Twenty-sixth Amendment (1971) ensures the vote to all citizens over the age of 18. The 14th Amendment set the voting age to age 21. Congress proposed the 26th Amendment on March 23, 1971, and it was ratified in 100 days by the states on July 1, 1971 (Maddex, 2008).
Voter Turnout By Age Groups

In the 2008 presidential election, voter turnout rate was 51.1% for ages 18 to 29, 60% for ages 30 to 44, 69% for ages 45 to 64, and 70% for ages 65 and older. Among the voters, 18% were ages 18 to 29, 29% were ages 30 to 44, 37% were ages 45 to 64, and 16% were ages 65 and older. Among voters ages 18 to 29, 66% voted for Obama and 32% voted for McCain. Among voters ages 30 to 44, 52% voted for Obama and 46% voted for McCain. Among voters ages 45 to 64, 50% voted for Obama and 49% voted for McCain. Among voters ages 65 and older, 45% voted for Obama and 53% voted for McCain (The United States Elections Project, 2008).

Voting By Age Groups In Nine Key States

Nine states (Nevada, Colorado, New Mexico, Iowa, Indiana, Ohio, Virginia, North Carolina, and Florida) changed party allegiance from the 2004 election because each voted for Bush in 2004 and for Obama in 2008. The 2008 Nevada Electorate included voters ages 18 to 29 (17%), voters ages 30 to 44 (33%), voters ages 45 to 64 (36%), and voters ages 65 and older (15%). Among voters ages 18 to 29, 67% voted for Obama and 31% voted for McCain. Among voters ages 30 to 44, 60% voted for Obama and 37% voted for McCain. Among voters ages 45 to 64, 51% voted for Obama and 46% voted for McCain. Among voters ages 65 and older, 42% voted for Obama and 55% voted for McCain (CNN.com Election Center, 2008).

The 2008 Colorado Electorate included voters ages 18 to 29 (14%), voters ages 30 to 44 (33%), voters ages 45 to 64 (39%), and voters ages 65 and older (13%). Among voters ages 18 to 29, 66% voted for Obama and 32% voted for McCain. Among voters ages 30 to 44, 53% voted for Obama and 46% voted for McCain. Among voters ages 45 to 64, 56% voted for Obama and 42% voted for McCain. Among voters ages 65 and older, 44% voted for Obama and 53% voted for McCain. Importantly, the 2008 New Mexico Electorate included voters ages 18 to 29 (21%), voters ages 30 to 44 (28%), voters ages 45 to 64 (35%), and voters ages 65 and older (16%). Among voters ages 18 to 29, 71% voted for Obama and 27% voted for McCain. Among voters ages 30 to 44, 52% voted for Obama and 47% voted for McCain. Among voters ages 45 to 64, 54% voted for Obama and 45% voted for McCain. Among voters ages 65 and older, 53% voted for Obama and 46% voted for McCain (CNN.com Election Center, 2008).

The 2008 Iowa Electorate included voters ages 18 to 29 (17%), voters ages 30 to 44 (27%), voters ages 45 to 64 (38%), and voters ages 65 and older (18%). Among the voters ages 18 to 29, 61% voted for Senator Obama and 36% voted for Senator McCain. Among the voters ages 30 to 44, 48% voted for Senator Barack Obama and 50% voted for Senator John McCain. Among the voters ages 45 to 64, 54% voted for Senator Barack Obama and 44% voted for Senator John McCain. Among the voters ages 65 and older, 49% voted for Senator Barack Obama and 48% voted for Senator John McCain (CNN.com Election Center, 2008).

The 2008 Indiana Electorate included voters ages 18 to 29 (19%), voters ages 30 to 44 (31%), voters ages 45 to 64 (37%), and voter ages 65 and older (13%). Among the voters ages 18 to 29, 63% voted for Senator Barack Obama and 35% voted for Senator John McCain. Among the voters ages 30 to 44, 47% voted for Senator Obama and 52% voted for Senator McCain. Among the voters ages 45 to 64, 49% voted for Senator Barack Obama and 50% voted for Senator John McCain. Among the voters ages 65 and older, 37% voted for Senator Barack Obama and 61% voted for Senator John McCain (CNN.com Election Center, 2008).

The 2008 Ohio Electorate included voters ages 18 to 29 (17%), voters ages 30 to 44 (27%), voters ages 45 to 64 (39%), and voters ages 65 and older (17%). Among the voters ages 18 to 29, 61% voted for Senator Barack Obama and 36% voted for Senator John McCain. Among the voters ages 30 to 44, 51% voted for Senator Barack Obama and 47% voted for Senator John
McCain. Among the voters ages 45 to 64, 53% voted for Senator Obama and 46% voted for Senator McCain. Among the voters ages 65 and older, 44% voted for Senator Barack Obama and 55% voted for Senator John McCain (CNN.com Election Center, 2008).

The 2008 Virginia Electorate included voters ages 18 to 29 (21%), voters ages 30 to 44 (30%), voters ages 45 to 64 (38%), and voters ages 65 and older (11%). Among the voters ages 18 to 29, 60% voted for Senator Barack Obama and 39% voted for Senator John McCain. Among the voters ages 30 to 44, 51% voted for Senator Barack Obama and 47% voted for Senator John McCain. Among the voters ages 45 to 64, 51% voted for Senator Barack Obama and 48% voted for Senator John McCain. Among the voters ages 65 and older, 46% voted for Senator Obama and 53% voted for Senator McCain (CNN.com Election Center, 2008).

The 2008 North Carolina Electorate included voters ages 18 to 29 (18%), voters ages 30 to 44 (27%), voters ages 45 to 64 (39%), and voter ages 65 and older (16%). Among the voters ages 18 to 29, 74% voted for Senator Obama and 26% voted for Senator McCain. Among the voters ages 30 to 44, 48% voted for Senator Barack Obama and 52% voted for Senator John McCain. Among the voters ages 45 to 64, 43% voted for Senator Barack Obama and 56% voted for Senator John McCain. Among the voters ages 65 and older, 43% voted for Senator Barack Obama and 56% voted for Senator John McCain (CNN.com Election Center, 2008).

The 2008 Florida Electorate included voters ages 18 to 29 (15%), voters ages 30 to 44 (25%), voters ages 45 to 64 (37%), and voters ages 65 and older (22%). Among the voters ages 18 to 29, 61% voted for Obama and 37% voted for McCain. Among the voters ages 30 to 44, 49% voted for Barack Obama and 49% voted for John McCain. Among the voters ages 45 to 64, 52% voted for Barack Obama and 47% voted for John McCain. Among the voters ages 65 and older, 45% voted for Obama and 53% voted for McCain (CNN.com Election Center, 2008).

Votes By People Ages 18 To 29 Impacted The Election

In 2008, the majority of people ages 30 to 44 voted for McCain in 3 states (Iowa, Indiana, and North Carolina) and for Obama in 6 states (Nevada, Colorado, New Mexico, Ohio, Virginia, and Florida) that changed party allegiance from the 2004 presidential election. In 2008, the majority of people ages 45 to 64 voted for McCain in 2 states (Indiana and North Carolina) and for Obama in 7 states (Nevada, Colorado, New Mexico, Iowa, Ohio, Virginia, and Florida) that changed party allegiance from the 2004 presidential election. In 2008, the majority of people ages 65 and older voted for McCain in 7 states (Nevada, Colorado, Indiana, Ohio, Virginia, North Carolina, and Florida) and for Obama in 2 states (New Mexico and Iowa) that changed party allegiance from the 2004 presidential election. In 2008, the majority of people ages 18 to 29 voted for Obama in all 9 of the states that changed party allegiance from the 2004 presidential election. Importantly, the votes of the people ages 18 to 29 in Nevada (5), Colorado (9), Iowa (7), Indiana (11), Ohio (20), Virginia (13), North Carolina (15), and Florida (27) did have an impact on the 2008 presidential election of Barack Obama because their votes helped Obama win their states and the 107 total Electoral Votes for winning the 8 states.

Conclusion

According to the study entitled Voting and Registration in the Election of November 2008 (2010), Barack Obama received the most votes for a presidential candidate in American history. Of the popular votes, Barack Obama received 69,456,897 (52.9%) and John McCain received 59,934,814 (45.7%). Of the 538 Electoral Votes, Barack Obama received 365 (67.8%) for winning 28 states and Washington, D.C., and John McCain received 173 (32.2%) for winning 22 states. In 2008, the majority of White Men voted for McCain in each of the 9 states that changed party allegiance from the 2004 presidential election. In 2008, the majority of Men voted for
Obama in 6 states (Nevada, New Mexico, Iowa, Ohio, Virginia, and Florida) and for McCain in 3 states (Colorado, Indiana, and North Carolina) that changed party allegiance.

In 2008, the majority of people ages 30 to 44 voted for McCain in 3 states (Iowa, Indiana, and North Carolina) and for Obama in 6 states (Nevada, Colorado, New Mexico, Ohio, Virginia, and Florida) that changed party allegiance. In 2008, the majority of people ages 45 to 64 voted for McCain in 2 states (Indiana and North Carolina) and for Obama in 7 states (Nevada, Colorado, New Mexico, Iowa, Ohio, Virginia, and Florida) that changed party allegiance. In 2008, the majority of people ages 65 and older voted for McCain in 7 states (Nevada, Colorado, Indiana, Ohio, Virginia, North Carolina, and Florida) and for Obama in 2 states (New Mexico and Iowa) that changed party allegiance from the 2004 presidential election.

In 2008, the majority of male minorities, women, and people ages 18 to 29 voted for Barack Obama in each of the 9 states that changed party allegiance from the 2004 presidential election. Importantly, the votes of the male minorities, women, and people ages 18 to 29 in Nevada (5), Colorado (9), New Mexico (5), Iowa (7), Indiana (11), Ohio (20), Virginia (13), North Carolina (15), and Florida (27) did have an impact on the 2008 presidential election of Barack Obama because their votes helped Obama win their states and the 112 total Electoral Votes for winning the 9 states. Basically, this is how the expansion of the electorate by the 15th Amendment (1870), 19th Amendment (1920), and 26th Amendment (1971) impacted the 2008 presidential election.

References
The Brief Return of Nurses to Television Drama: What Went Wrong?

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After a decade in which there were virtually no nurse characters on television in dramatic series, a sudden change occurred in the 2009-2010 season. All at once, three networks put nursing series on the air. That surprising experiment, short-lived as it was, offers a fine opportunity to see how society can react to different strategies by different types of networks, and how those strategies reflected the media’s interests as opposed to those of the public.

In the past, television had a tradition of respectable nurse characters, such as nurse Hathaway for approximately five years, up to 2000, on the much-honored TV series ER. She was depicted as efficient, competent, and admired. Then there followed 10 years of almost no nurses on TV. Nursing was on TV, but not performed by nurses; e.g, in House and Grey’s Anatomy, medical doctors were depicted as performing not just MD duties but all the nurse duties – starting IV’s, inserting nasogastric tubes, providing post mortem care and helping grieving families, etc. (Trossman, 2009). An important reason for the departure of nurse characters from the small screen was that nursing anti-defamation organizations such as the Center for Nursing Advocacy (2005) consistently chased every new nurse character off the air for not being perfect (Huston, 2010; Rivers, D. L., Rivers, K. T., & Nichols, 2011).

Then, simultaneously, three networks suddenly got the idea that nurse drama was the next big thing. Television’s great experiment of debuting three dramatic nursing series in one year, 2009, included the shows Mercy, HawthoRNe, and Nurse Jackie. Why put shows about nursing on television? Of course, nursing has an innate drama to it involving life and death matters. And, as a bonus, good shows about nurses can recruit students into nursing, which is an important public service at a time when the American Association of Colleges of Nurses projects an imminent shortage of nurses, exacerbated by low enrollment in nursing programs and the aging workforce which has begun to retire from nursing (AONE, 2006; Kalisch & Kalisch, 1982; Rasmussen, 2001a, 2001b; Rivers, D. L. et al., 2011; Wood, 2008). There is expected to be a shortage of nurses by 2016 of more than one million new and replacement nurses, according to the projection from the U.S. Bureau of Labor statistics (ScriptPhD, 2009). Did these three new shows present a positive, ethical image of nurses that would help recruit? Or did other considerations override such benevolence?

The purpose of our study was to obtain statistics of society’s reactions to the image of nurses and nursing shows in television programs and to determine what went wrong with the network’s efforts. Of central significance is the conflict between the networks’ interests and society’s interests. Our application is the examination of ethical implications of sensationalism in nursing dramas and the impression made upon the public for better or for worse. As the authors, we also wanted to learn which types of series about nursing are most likely to succeed on TV. Are they the shows that portray nursing to future generations the way the profession would prefer?

The nursing profession’s image has long been impeccable. Nursing is well known as the most ethical, trusted, and best respected of any in the United States, according to the Gallup public opinion polls (Trossman). The ANA’s Code of Ethics for Nurses with Interpretive Statements (2010), as well as various state regulations, prohibit nurses from engaging in behaviors such as stealing, lying, taking drugs, falsifying documentation, performing procedures only doctors are authorized to do, carrying out actions outside of the state’s Nurse Practice Act, giving preferential or discriminatory treatment to a patient, and being verbally abusive to each other, to patients, to families, and so forth.

However, in Mercy, HawthoRNe and Nurse Jackie, the lead characters make a habit of breaking such rules of ethics in every episode, usually in the dramatic cause of aiding a helpless patient or punishing a nasty patient. The more sensationalistic the rule-breaking, the more
shocking the drama, but the less realistic the depiction of nursing practice becomes. It is interesting to see the degree of sensationalism in each series, and how that affected the reaction from critics, nurses, nursing associations, and the public.

A review of the literature finds varying opinions about the three televisions series from the TV critics, nursing organizations spokespersons, nurses, and medical doctors. The television critics were mostly negative toward Mercy, highly negative toward HawthoRNe, and overwhelmingly positive toward Nurse Jackie. The nursing organizations’ reaction was basically negative toward all, finding Mercy disappointing, HawthoRNe disgusting, (especially when it became too soapy), and Nurse Jackie detestable. For example, the American Nurses Association (ANA) posted a call to action asking RN’s to send in letters of complaint to the producers of the shows (Trossman, p. 1). Laurie Badzek, JD., RN, director of ANA’s Center for Ethics and Human Rights urged people to stop watching the shows (Trossman). Nurses in the profession had a mixed reaction to all three; they usually found them entertaining, but perhaps damaging to the image of nursing (Sorrell, 2009). Medical doctors were angrily negative toward all three and found the shows too pro-nursing while depicting physicians often as incompetent and arrogant (Carmichael, 2009).

**Methodology**

This is a descriptive study with comparative analysis of the three network shows for evaluation and outcome. The procedure utilized is the retrieving of existing data from journals, newspapers, and new media, and conducting a comparative analysis among the three shows. The ratings of the series come from sources such as the television networks and Nielsen Media Research, as reported in the major media. Opinion citations are quoted from expert critics, bloggers, nursing organization spokespersons, and article commenters from the general public when deemed to reflect typical perceptions.

**Results and Discussion**

**Similarities and Differences Among the Three Shows**

There were many similarities among the three series. On all of them, the protagonist nurses were risk-takers; pro-patient; prone to bend or break the law; and all were charismatic women. They battled against ignorant, arrogant doctors, finance-minded hospital administrations, and uncooperative insurance companies. All the shows had almost the same supporting characters, which included the stereotypical gay male nurse, the sexy female nurse, the strict boss, and a naïve “newby” nurse named Kelly or Chloe or Zoey. The lead character in each of the series has an ongoing adulterous affair. All the lead characters are on drugs at one time or another. And there are many clichéd story lines used that have been done countless times on previous medical shows.

A big difference is the age of the characters and actresses in lead roles. Mercy had character Veronica Callahan, RN, who was a young nurse returning from the war in Iraq, and she was played by 25-year-old Taylor Schilling. HawthoRNe’s nurse was Christina Hawthorne, Chief Nursing Officer (CNO), who was played by 38-year-old Jada Pinkett Smith. (Her age evidently explains her holding this higher position.) Nurse Jackie has ER nurse Jackie Peyton, who was played by 46-year-old Edie Falco. Jackie’s young children are probably an indication that the character is supposed to be 8-10 years younger than the actress.

**Type of Network and its Significance**

Mercy, HawthoRNe, and Nurse Jackie were each on a different type of network, which is important in order to understand the approaches that the networks utilized in formulating and promoting the series. Mercy was a show on NBC, a commercial broadcast network relying
entirely on its ratings to entice sponsors to pay for the privilege of advertising during the programs. *HawthoRNe* was on TNT, a standard cable network that can maintain its commercial programs at a generally lower cost than broadcast TV can. And *Nurse Jackie* debuted on Showtime, a premium cable network that has no commercials, and instead makes its income from subscriber fees. In part because of these differences, each type of network employed a different strategy in the development of its nursing series. This was especially evident in the degree of sensationalism, as opposed to professional realism, that the various series chose to utilize.

*The Three Shows with Reactions, Ratings and Rankings*

*Mercy* was a one-hour drama broadcast just once a week, on Wednesdays, initially at 8 pm / 7 pm Central before being moved to 9 pm Eastern time / 8 pm Central for the last few episodes. Wednesday is generally considered a strong night for television viewing, although the first hour of prime time can be difficult when it comes to attracting viewers. *HawthoRNe* was a one-hour program that was on Tuesday evenings at 9 pm Eastern / 8 pm Central, but which was additionally replayed throughout the week at various times. In 2009, Tuesday was becoming one of the more popular evenings for television viewing. *Nurse Jackie* was, and as of this writing still is, a half-hour comedy-drama that is first seen on Sunday evenings at 9 pm Eastern / 8 pm Central and is repeated throughout the week at various times. Sunday is an extremely popular night for television viewing, which means much opportunity for ratings success, but also strong competition. Because of their multiple showings per week, *HawthoRNe* and *Nurse Jackie* were less affected by time slot than *Mercy* with its lone opportunity to reach the audience.

*Mercy*

*Mercy* chose a very balanced approach in regard to medicine and sensationalism. NBC even produced two different promotional commercials for the series before it came on the air; although similar, one ad stressed nursing practice and the lead character’s professional issues, whereas the other ad emphasized the series’ soap opera aspects such as showing the main character kissing both her husband and her lover, and showing other characters having romantic conflicts. Clearly, NBC thought they had a perfect hit, relying on nursing practice to attract members of the nursing profession, and enough sensationalism to attract the general public. They were wrong. This balanced approach pleased no one, as nurses objected to the sensationalism, while the critics and public found the nursing issues lacking in general interest as dramatic fare. *TV Guide*’s lead reviewer, Matt Roush, declared that “nurses deserve better than this pot boiler in which obnoxious characters OD on medical melodrama and romantic clichés” (2009b, p. 40).

The pilot episode of *Mercy* focused on the central point of the series: lead character Veronica Callahan, fresh back from serving in the Iraq War and suffering from PTSD, is unable to adjust to the ways of stateside nursing. In the first major scene, she witnesses a street accident, and leaps into action to save the life of the motorist. She performs a medical procedure typical in war but not authorized for nurses in the U.S. For saving the patient in this fashion, she comes under attack from the patient’s fiancée, the hospital doctors, and an administrator. Veronica openly admits to being functional solely because of her “delicious Paxil.” Later, when asked by a surly patient what good nurses are, Veronica replies, “Well, we do try to keep the doctors from killing you.” This provocative attitude that doctors are the ignorant, arrogant enemy provoked the ire of real physicians throughout the country. Throughout the series, Veronica’s storyline is eventually complicated by her efforts to reconnect with her husband while carrying on an adulterous affair with a doctor she had had a romantic relationship with in Iraq. *Mercy*’s
juggling act between legitimate nursing issues and sensationalistic soap was probably doomed from the start, as critics reviewing the series found it too formulaic, predictable, and clichéd, declaring that the series “needs some doctoring up” and is bound to be “taken off life support” (Nguyen, 2009, para. 11). We know the public’s reaction by examining the ratings for the series. Although starting off with a respectable 8.2 million viewers (Mercy Reviews, 2009) per episode, by the end of its 22-episode season viewership had plummeted to an unacceptable 4.01 million viewers (Mercy: TV show cancelled, 2010). The average number of viewers for the year was 6.33 million, ranking it a poor 76th out of all broadcast series (Gorman, 2010). (See Table.) Thus, Mercy was mercifully terminated after just one season, having run from September 23, 2009 to May 12, 2010.

HawthoRNe

TNT’s HawthoRNe arrived with high hopes for realism. Lead actress Pinkett Smith’s mother, Adriane Banfield-Jones, RN, was a nurse and a former Kaiser-Permanente executive, and the series also had a nurse, Susie Schelling, as its Medical Consultant, (Bonifazi, 2010). Although TNT sought a somewhat balanced approach for the series, the emphasis was generally more on sensationalism than on realism. For example, the second episode, “Healing Time,” consists almost entirely of CNO Hawthorne doing things that no CNO ever would do. At the start of the episode, a big, burly patient grabs a male nurse in a headlock, and Christina handles the problem by throwing a punch at the patient, and, by accident, comically flattening the male nurse. Later, when a delusional patient mistakes Christina for his wife, she orders a brain scan for him and proceeds to diagnose a cerebral tumor without so much as consulting a doctor. When a choice of two types of surgery must be made, Christina uses the patient’s belief that she is his wife to persuade him to choose the surgery that she prefers. Christina then personally shaves the patient for surgery! And when the surgery goes badly, resulting in his flatlining and being declared dead by more than one doctor, Christina grabs the paddles and continues to shock the patient for several more minutes, right through the commercial break, until her seemingly magical powers to raise the dead finally succeed and he comes back to life. Such nonsense earned the series some of the most savagely negative reviews ever seen from the critics. For example, Jennifer Godwin of E!Online (2009) called the series “sloppy, gloppy, chintzy, and incredibly boring” (para. 1) but the public seemed satisfied. HawthoRNe pulled in a solid 3.8 million viewers, considerably less than what broadcast series draw, but good enough to rank a respectable number 17 in the Cable TV ratings (thefutoncritic.com/ratings/2010). The first season had an average of 3.4 million viewers. The final episode had 2.9 million viewers and the final season average had 2.5 million viewers (see Table). It was on the air from June 16, 2009 to August 16, 2011.

After its first 11-episode season (cable has seasons half the length of broadcast TV’s), HawthoRNe’s creator John Masius passed the series along to a new “showrunner,” Glen Mazzara. This was significant because Mazzara was a former hospital administrator who said he wanted to change the series to make it “more grounded” in reality (Halterman, 2010, para. 3). The result was that the second season had more intelligent storylines in which Christina dealt with the things that nursing administrators actually do. For example, she handled Joint Commission inspections, hospital remodeling, acquisition of equipment, budget shortfalls, and staffing issues. The public’s reaction to such authenticity was swift and clear: the ratings dropped off a cliff, down to 2.5 million viewers. Obviously, the public found real nursing administration too dull. In a panic, TNT totally reversed its strategy for Season 3, in which Christina declares her new philosophy: “If doing the right thing means breaking the law, then I’ll do it every single chance I get.” The series then went 100% soap opera: Christina gets assaulted
on her wedding day, proceeds to run the entire hospital while brain damaged, and has an adulterous affair with a detective Renata, who tracks down and murders her attacker and then gets shot dead himself on Christina’s lawn. All this was pure General Hospital, but it was to no avail because the viewership had been irremediably chased away by the disastrous second season. HawthoRNe got cancelled after just three half-length seasons.

Nurse Jackie was a whole different story. Being on Showtime, a premium cable network that is supported by paid subscriptions rather than commercials, Nurse Jackie had certain built-in advantages: it did not need to reach as large an audience to be profitable, and it could use black humor, raunchy language, and scandalous themes not permitted on broadcast TV. As Showtime spokesperson Stuart Zakim put it, “We try to take subjects and treat them in a way that can’t be done on regular television” (Bauder, 2009, p. 5B). Showtime went all out for sensationalism. Although the series’ creators (Liz Brixius, Linda Wallem and Evan Dunsky) claimed their goal was to show how nurses, not doctors, are the important deliverers of medical care (Kinon, 2009), nothing in the show’s content matches the talk. Instead, the first half-hour episode (June 18, 2009) alone had Jackie constantly taking drugs, having adulterous sex with a pharmacist in exchange for pharmaceutical samples, verbally disrespecting doctors and administrators with obscene language, falsifying a dead patient’s non-existent organ donation card, flushing the severed ear of a criminal down the toilet because she didn’t like him personally, and lying about all her actions to cover up.

Prior to the series’ premiere, Showtime held not one, not two, but three advance screenings for nurses, including Barbara Crane, the president of the National Federation of Nurses. This predictably resulted in nurses angrily denouncing the series to the media as immoral, disgusting, appalling, and slanderous. Showtime’s strategy worked – people couldn’t wait to see just how outrageous and offensive the series was (Bauder). Critics were, for the most part, delirious in their praise. Fed up with formulaic TV series, the reviewers found Jackie’s crazy, unbridled behavior a wonderfully entertaining breath of fresh air, stimulating, original, and delightfully shocking. TV Guide’s Roush called the show “irresistible,” as well as “tart, smart, and affecting (2009a, p. 26). New York Magazine’s Emily Nussbaum raved that it was “excitingly ambitious – funny, sexy, strange” (2009, para. 7). ScriptPhD awarded Nurse Jackie a grade of “A”, calling the character and the series “never less than totally compelling” (para. 2). And blogger Daniel Fienberg (2009, p. 2) went so far as to declare the show “funny, heart-breaking, spiritual, touching, and more than anything, humane.”

Nurses in the general public tended to be ambivalent about Nurse Jackie, largely finding it entertaining, but worrying about the image of the profession and its possibly negative effect on recruiting in a time of nursing staff shortages. RN Teresa Brown (2009) , writing in the New York Times, stated: “I loved the new Showtime series Jackie and then I didn’t” (para. 1). She explains:

The first several episodes show Jackie managing the swirling emotions and complicated medical issues of an urban emergency department with compassion and a high degree of expertise…. As the series continued, though, it started to look more and more like General Hospital and less and less like a real hospital….I doubt any nurse would so repeatedly, and so consciously, put her license at risk (para. 1).

In a comment to Brown’s article, Nurse Yvonne Knauff declares:

Nurse Jackie has set the image of the nursing profession back 50 years. It isn’t a decent TV show!  I have been a BSN and Masters Prepared Nurse Practitioner
for too many years to condone the portrayal of any nurse as a drug addicted adulterous ‘professional.’ Would you want Nurse Jackie taking care of you or a member of your family? I wouldn’t.” (Brown, comment #18)

In another comment, Nurse Robinetta Wheeler said:

I am a nurse. Although I understand the need for some drama, I regret the writers portrayal of the nurse breaking all of the American Nurses Association Professional Code of Conduct….In addition, we continue to have a shortage of nurses. Please show the profession as one of dignity so that young people will consider it for the right reasons. (Brown, Comment #27)

Kevin Hook, Geriatric Nurse Practitioner, who find Jackie “compelling” and “three dimensional” while not agreeing with her methods, points out that other TV programs “tend to be better at depicting the caring part of nursing and not so good at showing nurses’ clinical care and knowledge,” whereas Jackie “went about her business like any real nurse would do – preforming an impeccable head-to-toe assessment” (Tossman, p. 12). Perhaps most unexpectedly, a former editor-in-chief of the American Journal of Nursing, Diana J. Mason, opined:

To like this series you don’t have to agree with everything that nurse does….I suggest that nurses rally around this series and stop wishing for perfection in any lead nurse character. Diahann Carroll’s docile nurse character in Julia wouldn’t attract viewers in today’s entertainment world. There is not another program that shows nurses as smart, fierce advocates who actually provide nursing care. Sure, I’ll cringe when Jackie pops another pain killer or steals from a jerk of a patient and gives the money to the pregnant woman who can’t afford a taxi home. But Nurse Jackie isn’t perfect and neither am I. I’m signing up for Nurse Jackie now. (Mason, 2009, p. 2)

Yet, this opinion was probably influenced by Mason’s having been consulted for advice by a Nurse Jackie scriptwriter prior to the launching of the series.

Professional nursing organization reaction to Nurse Jackie was much more negative. ANA ethicist Badzek said, “I definitely think those images hurt us professionally and in terms of recruiting” (Trossman). The New York State Nurses Association (NYSNA) demanded that the producers insert a disclaimer at the beginning of Nurse Jackie stating that the show does not comply with the ANA’s Code of Ethics for Nurses. Showtime refused to do so (Trossman). And even the ANA’s membership turned out to be almost evenly divided on the problem, with “only 53% of respondents” to the ANA’s own poll agreeing that Nurse Jackie harms the profession (Sorrell). Showtime proceeded undeterred.

Subsequent episodes of Nurse Jackie showed that the pilot was no fluke – Jackie Peyton was on a rampage of shocking behavior without end. In the second episode, “Sweet ‘n’ All,” Jackie is seen one morning packing her family’s lunches, and for herself crushing up the powerful drug Percocet and putting it into sweetener packets to ingest throughout the day at work. In Episode 7, “Steak Knife,” Jackie reluctantly mentors her newby nurse, then toys with the affections of the pharmacist who still doesn’t know Jackie is married after a year of supplying her with drugs and sex, and after that she walks into a pedophile patient’s room and proceeds to violently rip out his catheter to teach him a lesson. Her only defense: “Who are they going to believe, him or me?” Thus Jackie hides behind the shield of her profession’s sterling reputation in order to mete out vigilante justice as she pleases and conduct her working life in blatant disregard to all the standards of nursing.
Why does Jackie act the way she does? Edie Falco, the actress who plays Jackie, said in a TV Guide interview (Holbrook, 2009) that she has no idea: “‘Jackie is really complicated,’ says Falco. ‘When I first read the script, I thought, wow, I don’t understand this woman at all. And then I thought, what could be more fun than trying to figure her out?’” (photo caption, no page) Thanks to the short half-hour format, and the large number of characters on the show, Jackie actually has relatively little screen time. She does her bizarre actions, the other characters follow their sub-plots, and the episode is over without any time for reflection about why Jackie has built a whole life of lying, cheating and running incredible risks when she did not have any apparent necessity to do so. The story makes no sense, but it is like one train wreck after another that you cannot take your eyes off of. It is sensationalism taken to the maximum degree, and it works. Jackie’s viewership from the premiere to the present has risen from 1.35 million persons (The Futon Critic, 2010) per week to an average of 2.8 million (Nededog, 2011) weekly in season three, a very robust total for a premium cable show (see Table). Nurse Jackie, as of this writing, is heading into a fourth season (Nededog, 2011), making it the only one of the three nursing series to surpass 30 episodes.

Conclusion and Implications

It is perhaps worth noting that four other new medical dramas came out at about the same time as the nursing shows. Combat Hospital, Three Rivers, The Listener, and Miami Medical were doctor-centered or paramedic-centered shows without much nursing content, and all four were formulaic medical dramas typical of broadcast television. All met with quick cancellations. So, six out of the seven new medical shows of 2009-2010 were big failures. The only one to survive and thrive is the most sensationalistic one, fully taking advantage of the liberties afforded premium cable. The implication for educational purposes (Sorrell) is that the more extreme nurse shows might be useable for stimulating discussion in the classroom concerning ethical behavior for nurses. The implications for the nursing profession are more ambiguous and open to debate.

The general public’s attitude – important because the public makes for the ratings that keep shows on the air – is perhaps neatly summarized by a published online comment about Nurse Jackie from an individual named Spence Halperin:

The show is enormously entertaining, but if I was a nurse I would be none too happy about the character. I think television has a hard time depicting the helping professions realistically because it is just not dramatic enough to watch a good, ethical nurse, doctor, clergy or social worker. TV needs to make them ‘more complicated’ and Nurse Jackie is the result. Can we just enjoy it? (Brown, 2009, comment #10)

We can enjoy it, but what of the impact on nursing? At present, there is no positive nursing television series indirectly recruiting future nurses. That could potentially decrease applications into nursing from those watching television. It is suggested by the authors that future research be done to determine what if any television series might recruit future nursing applicants.

The moral of the story is that the experiment with medical dramas on TV was a failure in large part because the bar for sensationalism has been raised beyond what broadcast TV and even standard cable can compete with. Realistic nursing practice? Boring. Ethical nursing care? Sounds too dull. Total sensationalism? Successful, but only for a relatively small audience willing and able to pay premium prices for it. In the big smack-down among all these TV series, there is no real winner, and one big loser: nursing’s image in our society.
References


# Table: Nurse Series Viewership Ratings and Rankings

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<th>Average Viewers (millions)</th>
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<td>Mercy</td>
<td>8.2</td>
<td>4.01</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; season 6.33</td>
<td>76&lt;sup&gt;th&lt;/sup&gt; on broadcast TV (NBC)</td>
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<td>9-23-2009 to 5-12-2010</td>
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<td>HawthoRNe</td>
<td>3.8</td>
<td>2.9</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; season 3.4; final season 2.5; final episode 2.9</td>
<td>17&lt;sup&gt;th&lt;/sup&gt; on cable; network: TNT</td>
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<tr>
<td>6-16-2009 to 8-16-2011</td>
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<tr>
<td>Nurse Jackie</td>
<td>1.35</td>
<td>Still in production</td>
<td>2.8 (2011 – season 3)</td>
<td>Only one of the 3 nursing series to surpass 30 episodes; on Showtime premium cable</td>
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A Qualitative Analysis of Why Community College Students Are Taking Social Science Courses Online at a Rural Community College in the Midwest

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Abstract:
This qualitative research examines the unique reasons why rural community college students living in a Midwestern city, in the middle of America, are taking social science classes online. This research examines how 118 community college students responded to a series of 13 demographic questions and 10 open-ended questions. For the purposes of this study, only the first five open-ended questions will be addressed. The next study will address the other five open-ended questions. This study is the culmination of a year and a half long data collection process that occurred during the fall semester of 2010, spring semester of 2011, summer semester of 2011, and fall semester of 2011 in which students had the option to answer questions related to social science classes online. The social science online courses in which the survey was distributed included the following courses: Introduction to Sociology, Social Problems, and Gerontology. The purpose of the study is to go beyond surface-level explanations as to why rural community college students in a 25 county area in Nebraska are taking social science classes online.

Review of Literature
According to the 2009 Current Population Survey, exactly 77.0% of people living in the state of Nebraska have home access to the Internet (U.S. Census Bureau, Current Population Survey, October 2009). There has been much discussion about the “digital divide” in this country between urban community colleges having more “connectivity” than their rural community college counterparts (Leist and Travis 2010 and Cejada 2007). Leist and Travis (2010) posit “With many colleges located in sparsely populated locales, the service areas of these institutions typically span multiple counties and thousands of square miles.” This accurately depicts our community college discussed in this paper.

During the 2010-2011 academic year, this college served a total of 24,679 students (13,419 were full-time credit seeking students); 84% or 20,621 of those students were in the primary 25 county area the college serves in rural Nebraska (Enrollment Report, Central Community College, 2010-2011). The three most popular majors on campus as of the 2010 and 2011 academic year were Business Administration, Nursing, and Health Information Management Services (Enrollment Report, Central Community College, 2010-2011). This college has three primary campuses and several smaller satellite campus sites in the 25 county region it serves.

The average age for a full-time student at this community college is 24 and for part-time students it’s 31 (Enrollment Report, Central Community College, 2010-2011). The racial breakdown for credit students is the following: For Whites (82.3%); Blacks (1.1%); Native American (0.03%); Asian and Pacific Islander (0.08%); Hispanic/Latino (8.71%); Hawaiian/Islander (0.0156%); and for students reporting to be of two or more races (0.054%) (Enrollment Report, Central Community College, 2010-2011). The gender breakdown for credit students is the following: Males comprise 43.8% and females comprise 56.2% of the population (Enrollment Report, Central Community College, 2010-2011).

Cejada (2010) reports “community colleges that offered courses over the Internet in 2000 have dramatically increased the number of online offerings and dramatically decreased the number of offerings using other technologies“ (pp. 7-8). Additionally, Cejada (2010) reports that there are eight subject areas offered online in which the greatest growth has occurred: business, liberal arts and sciences, general studies and humanities; health professions and related sciences; education; computer and information sciences; social sciences and history; psychology; and engineering. Recent research has suggested that there are numerous barriers that rural community college students who take courses online must overcome (Rao et al 2011; Mihalynuk
et al 2007; Cejada 2007; Cejada 2010; and Hyllegard et al 2008) compared to their more urban community college student counterparts. For example, Murphey (2006) states:

“Rural areas have a bit more of a challenge in areas of resources, but have advantages in areas of flexibility. Qualified people such as administration, faculty, and staff can set the tone for online classes. Technical support, library services, and student services work in unison to provide online students with services that are comparable to those available to on-site students. A clear cut vision of how rural community colleges can utilize online student services makes it possible for personnel such as members of an online committee and support staff for online student services to disseminate information and use helpful aids to online students. People, processes, and technology all blend together to form an effective, cohesive setting for an online student, and rural institutions will have to get creative to provide these necessary services to their rural online college students” (p. 3).

Another similar finding of Murphey (2006) that coincides with the findings in this paper is that most of the rural community college students in the United States are not of traditional college age (18-24) and most are older, non-traditional female college students who are attempting to obtain more education to enhance job skills or increase hiring or promotion potential. Other barriers rural community college students may endure include: limited access to telecommunications including the internet, deeply rooted social structures which sometimes hinders online courses, and maintaining a balance between rural environment and development pressures (Mihalynuk, 2007).

However, some of the more recent studies are also showing that rural community colleges that offer online classes are actually closing in on previous barriers that were once thought to hinder rural community college students from taking online courses (Hale 2007; Ouzts 2006; Seok et al 2010; and Dobbs et al 2009). Many of the findings in these articles will be found relevant to this study.

One of the major findings of Shieh et al. (2008) is that the online instructor’s engagement level and facilitation skills are considered crucial factors to ensuring effective implementation of the online course. Ouzts (2006) also states that when students have a high sense of community while taking online courses, they have a much higher rate of success in completing online courses. She mentions five characteristics that students report as making them feel as though they had a high sense of community in their online courses: 1. Good teacher characteristics; 2. Strong student connection related to assignments; 3. A change in personal perspective; 4. Quality learning; and 5. Satisfaction. (Ouzts 2006).

**Why take an online class at a community college?**

According to Hale (2007), there are numerous reasons why community college students may prefer to take classes online. The first reason is the obvious, cost. Community colleges have lower per-unit fees than four year colleges and universities. Second, personal reasons such as money for textbooks, transportation, and day care may be reasons as well. Online learning can ease some of these problems by eliminating the need to be on campus and can provide more flexible options for students achieving their educational goals (Hale, 2007). Yet with this option of greater convenience and flexibility, online education has still been beset by unusually high attrition rates (Hyllegard et al 2008). Other reasons students reported for taking classes online according to Dobbs (2009) included: job-related responsibilities, family responsibilities, the university/college was located too far from the student’s home, being able to work at one’s own pace, and health-related reasons.
The most recent literature suggests college students overall perceptions of online classes is positive. Other reasons for genuinely liking online classes in addition to the reasons stated above include: saving time, scheduling, and being able to take more classes; students believed that learning activities/assignments promoted better learning; and both female instructors and students had significantly higher perceptions of the online classes than males (Seok et al., 2010). In another study by Dobbs et al. (2009), they found that 87% of students reported they were either somewhat or very satisfied with the online courses they were taking. The study also suggests students found the online courses to be either slightly more demanding or at least as equally demanding as a traditional lecture course. Another significant finding by Dobbs et al. (2009) is that over half the students in both his research with colleagues and other subsequent studies cited within his research, reported that students actually felt they learned more in the online class than in a lecture class. In both his research and the numerous studies he cited, the following was found: Students tend to read more for their online course, students perceived online courses were more difficult, online courses were perceived to be of higher quality than lecture classes, and students reported spending more time per week on their online courses than in their lecture courses (Dobbs et al., 2009).

Most of the negative comments related to online classes were a result of technological problems, a lack of a sense of belonging in the class, a feeling of isolation, problems with discussions online, and the instructor never seemed to be present when students needed him or her. Also included: poor teacher characteristics, low student-to-student connection, poor quality of learning, overall dissatisfaction with the course, lack of feedback on assignments, lack of understanding expectations for the course, some teacher responses sometimes did not make sense or apply to the discussion, and a lack of connection with the instructor (Dobbs et al. 2009; Seok et al. 2010; Hyllegard et al. 2008; Ouzts 2006).

**Research Questions**

The purpose of this study is twofold. First, we wish to go beyond the surface level explanations of why students prefer to take social science classes online. Second, we are trying to explain why rural community college students in Nebraska are taking online classes. Since our research focuses primarily on our college, this study is essentially a case study.

We asked the students to answer a series of 13 demographic questions, then 10 open-ended questions. The first five open-ended questions asked the students why they were taking an online social science course, how it might fit into their major, how an online course would benefit them, if the student felt the online classes in the social sciences were easier than lecture classes, and if the student felt that online courses in any subject were easier to take online.

Specifically, the five open-ended questions included: 1. Why are you taking a social science course online here at Central Community College?; 2. How is taking a social science course online going to benefit you in your major?; 3. How is taking a social science course online going to benefit you in your career?; 4. Do you believe taking social science courses online are easier or harder than taking them as a lecture class?; and 5. Do you believe taking a course online in any college subject is easier or harder than taking a lecture class in that subject? What has been your experience with this?

The second set of five questions were not addressed in this study and will be addressed in another study. Those questions relate more to comparing our online courses at our college with online classes taken at other colleges; therefore it was not relevant to report that data in this paper.
Method

The 23-item survey instrument was distributed to students in both 100 and 200 level online social science classes at a rural midwestern community college. Participation was voluntary with informed consent. All online courses on all of the campuses at this rural community college are capped at 25 students per class. The majority of the respondents were female (86.3 percent) and males represented (13.7 percent). A majority of the respondents (89.7 percent) identified themselves as White/Caucasian, with 4.3% identifying as Hispanic/Latino; another 4.3% identifying as Asian American/Pacific Islander; 0% reporting in as African American, and there was only one respondent for both Native American/American Eskimo; one reported as Bahamian, and one respondent chose not to answer the question. The following is a breakdown of the age distribution of the participants in the survey: Students 17 years of age or younger (10.2%); 18-23 (44.1%); 24-30 (19.5%); 31-40 (17.8%); age 40 and over (8.5%).

In terms of political preference, students responded in the following way: Conservative (32.2%); Liberal (17.8%); and Moderate (39.8%); Independent (3.4%); Undecided (3.4%); Radical (0.08%); and Undecided (3.4%). In terms of income, students reported the following: Less than $10,000 (0.08%); $10,000-$24,999 (18.6%); $25,000-$49,999 (27.1%); $50,000-$74,999 (34.7%); $75,000-$99,999 (8.5%); $100,000 or more (4.2%); No Response (6.8%).

Since we have students from a variety of individual backgrounds taking courses for various reasons, i.e., to transfer to a four year college; build their skill set; take extra classes as mandatory procedure for their jobs, re-invent themselves in a new career and etc., we felt it necessary to ask what their highest level of educational attainment was at the time of their completion of the survey. The following was reported by the students: Still in high school or only a high school education (16.9%); Freshman (29.7%); Sophomore (33.9%); Junior (10.2%); Senior (8.5%); Graduate Work or beyond (0%); Not Answered (1.7%).

Since many of the students at this community college are first-time college students, we thought it was necessary to report what their parents’ highest level of educational attainment was as reported by the students. For father’s highest level of educational attainment the following was reported by the students: 1. less than high school: 22 (18.6%); 2. high school graduate: 32 (27.1%); 3. some university/college/ or community college: 30 (25.4%); 4. community college graduate: 14 (11.9%); 5. university/college graduate: 17 (14.4%);6. some graduate school: 0 (0%); 7. graduate degree: 2 (1.7%); and 8. other professional degree: 1 (.085%).

For the students’ mothers highest level of educational attainment the following was reported: 1. less than high school: 9 (7.6%); 2. high school graduate: 35 (29.7%); 3. some university/college/or community college: 21 (17.8%); 4. community college graduate: 16 (13.6%); 5. university/college graduate: 29 (24.6%); 6. some graduate school: 1 (.085%); 7. graduate degree: 7 (5.9%); and 8. other professional degree: 2 (1.7%).

This is a case study which simply explores both the needs for and attitudes of taking online social science courses at a rural, Midwestern community college. Data for this study were collected from 118 web-based students from this particular community college in Nebraska who happened to be taking one of three different social science courses in any of the four semesters in which data were collected; therefore this study is exploratory in nature. The data were collected from students in the typical 25 county area that the community college serves in central and south central Nebraska and from a few counties outside of the serving area. There were also responses from students taking the course elsewhere. There was a response from a student in Colorado, a response from a student in Minnesota, and two students who were taking the online classes in Vietnam.
Students in the web-based classes were given the opportunity to complete the survey. It was not mandatory. The students answered 13 demographic questions and then responded to five open-ended questions related to why they took a class online, and the second set of five questions asked if they planned to take another online class, if they planned on taking another online course at the local community college, and if they were going to take one at a four-year college or university.

**Findings**

The following responses were the most popular ways students at this Midwestern community college answered the open-questions.

**Question# 1:**

*Why are you taking a social science course online here at Central Community College?*

Some of the more surface level, expected responses from online students included: that is was cheaper, very accessible, time manageable, convenient, it was challenging, required for major, required for Nursing, convenient for the work schedule, flexible, fit into my schedule, cheaper than taking the course at a four year university, can work at my own pace, course requirement to get into a Radiology program, and it transfers to a four year college or university.

Some of the responses that were unique to our rural situation included: “I have a one-year-old and daycare is too expensive, so the online course allows me to be home with my child;” “Online classes are easier for my and my husband’s schedules;” “I knew I would enjoy the course because it’s something I enjoy reading and studying;” “I do most of my homework for my online class when I go to bed;” “I couldn’t find a lecture time that fit my schedule;” “It’s convenient for me to participate in my own class at my own time;” “I enjoy working on the computer rather than being in the classroom;” “I live in Minnesota;” “I took it in the summer to save time for farming and I was interested in the course even though it’s not a requirement;” “I have more to time to learn;” “In the summer I had more time to take it;” “Being in a classroom would be impossible to manage.”

**Question# 2:**

How is taking an online social science course going to benefit you in your major?

Some of the more surface level, expected responses from online students included: There were only three negative responses in which individuals answered that the social science classes would not benefit them in their major. There were also three responses where students did not know if a social science class could benefit them in their major. The majority of respondents reported that an online social science course could benefit them in their major, especially when it comes to understanding various religious, ethnic, and racial groups. Further, many of the nursing majors stated that online social science courses would help them understand other groups’ customs, beliefs, behaviors, societies, and social problems. Some of the business majors stated that online sociology courses could benefit them because those courses deal with people and their behaviors. Yet other students reported that some background in social patterns helps them understand the patterns of today. Other popular responses alluded to understanding group dynamics, group behavior, how to adapt to a constantly changing society, learning about the dire poverty in other countries, and a wanting to learn how other people live.

Some of the responses that were unique to our rural situation included: “Taking it online allows me to do other things besides being a full-time student,” “After I graduate, I don’t know if I will change jobs or stay with the same one but whichever I decide, every job will deal with people,” “I feel I learn more on my own rather than sitting in a classroom. I tend to not pay attention and as a result, do poorly in lectures,” “It has helped me with the understanding of my
psychology courses,” and “It will show that I can be motivated to complete something on my own.”

Question #3:
How is taking a social science course online going to benefit you in your career?

Some of the more surface level, expected responses from online students included: it would help them understand their patients’ or clients’ differing cultural backgrounds. Understanding various social issues was another reported reason by the students. Also, understanding peoples’ beliefs and values was seen as a benefit of taking an online social science course. Other responses included: “This class has given me a better understanding of society as a whole and the different types of people I will be in contact with.” A nursing major had this to say: “In nursing there are certain aspects of society that need to be understood. In different cultures they expect different behaviors. Learning about culture is nice because where we end up working, you just may have to work with patients of different backgrounds.” “I learned about the roles in life to personality! I loved it all!” “It teaches us not to be so judgmental. We should take in our culture and society as a whole!” Another finding in the data was that students across all majors conceded that a social science course gives insight into dealing with people on all levels, no matter what their major!

Some of the students’ responses that were unique to our rural situation included: “It has helped me take responsibility in getting work done on time.” “Taking a course online will help me in my career when I have to use a computer and submit documents online.” “It is teaching me how to be responsible and be aware of deadlines.” “It is teaching me about time management along with computer technology.” “Understanding others can help me advance.” “Taking a social science course online is going to benefit me in my career by helping me work with computers and deadlines.” “Having at least a basic understanding of sociology will help in any career where you deal with people.” “It helped me get used to using the Internet and doing my homework.” “It allows me to see how medical fits into social science, and to see it from a different point of view.” “By taking this course, my interaction in society and in the workplace will improve by a substantial margin, and therefore, this class will give me an edge in my career.”

Question #4:
Do you believe taking social science courses online are easier or harder than taking them as a lecture course?

The results for this question were very mixed. Students at this community college definitely had strong opinions and made their case for whether or not online classes were more difficult or easier.

Some of the more surface level, expected responses from online students included: “You can do it on your own time” reported one student. Also, stay-at-home parents thought they were easier in terms of flexibility; full-time workers who have to support their families and themselves seemed to prefer online courses; students stated that they liked the way online courses were set up as opposed to lecture classes; some students reported having less assignments; some believed they had more time to do their work; some students reported being able to work ahead; some students reported themselves as “independent learners” and like to work at their own pace (faster), so they can do other things in their personal life and with their time. Others prefer taking the online social science classes because they can sit down and focus on their studies and not have others distracting them.
In the case of online social science courses being more difficult, the following things were reported: students reported missing out on the interaction that takes place in lecture classes with other students and the professors. Other responses alluded to the fact that students have to be more organized to complete their work on time. Also reported was that you have to be more responsible, and you have to check things yourself before turning them in to the professor. Motivation was another detriment mentioned by online social science students. Many of the respondents said that there was much more reading they had to do in their online social science course than in a social science lecture course. Knowing how to use the technology system a community college uses, i.e., Blackboard, Moodle is another common problem students reported. Learning time management skills was another problem students reported. Students also reported that a lot depended on being able to pick up the book, read it, and understand it without having someone in a classroom to help them with difficulties. Finding time to complete the required work in a course and time management were recurring challenges that online students reported.

Some of the responses that were unique to our rural situation included: the major findings for this question were the reported number of self, independent learners who just didn’t feel they needed the classroom setting to be successful in the course. Some students expanded on how the classroom setting really holds them back from learning in a more fast-paced way. The other significant finding was the number of students who found both lecture and online courses easier or difficult in their own way. Many of the students would articulate in great depth the pros and cons of each mode of delivery in their response to this question.

Question#5:
Do you believe taking a course online in any college subject is easier or harder than taking a lecture class in that subject? What has been your experience with this?

As with question #4 above, the results for this question were very mixed. Students at this community college definitely had strong opinions and made their case for whether or not the class was more difficult or easier.

Some of the more surface level, expected responses from online students included: Surprisingly, the majority of the students preferred an online course in most subjects because the classes were easier, more flexible, allows students to work at their own pace, allows students to complete course requirements on their own time, and fosters a better learning environment for independent learners. However, what was discovered in this research was that many of the community college students didn’t believe Math classes or upper division level courses should ever be offered online.

Some of the responses that were unique to our rural situation included: many students reported that they may be apprehensive to take upper-level courses online. Another common theme from students is they didn’t believe any Math classes should be offered online. Other issues the online students reported as a challenge included: not having face-to-face interaction with peers and instructors to discuss opinions and topics. Some online students also reported that being in a lecture may be advantageous over an online class in any subject because the professor or instructor may have a specialty area that he or she emphasizes in the classroom and the online students don’t benefit from the experience of the instructor or professor’s expertise in a particular subject. Also, in the lecture, there may be some points that may be omitted from class lecture, yet if the online class is guided by the book, the student may still have to know that material even though it’s not a requirement in the lecture class. A final theme that students discussed was technology. Many students reported that if the technology of the web course is designed well, it
makes the course run more smoothly. Finally, students who lived far away from campus appreciated not having to drive long distances to take a class.

**Discussion**

This study focuses on a community college in a very rural area of the Great Plains. The successes of online students mentioned in this paper, while abundant, must be taken with some caution. This study only examined students taking social science courses online. The study did not take into consideration students taking online courses in other disciplines on campus. The majority of the respondents who participated in the survey were women, so there may be some gender bias to this study as well. Also, this community college doesn’t necessarily have the same Internet access problems that many other rural community colleges in the United States experience on a regular basis. As Cejada (2007) points out, “Rural community colleges must consider several issues that their urban and suburban counterparts don’t have to address. Two primary issues that can impede the success of rural community college students include: access to the Internet and access to broadband connection” (p. 94). These two items are not a problem at every rural community college, but certainly can be a detriment to those communities who don’t have local Internet companies or broadband service.

Other issues that rural community college students must deal with according to Rao et. al (2011) when it comes to online learning include: feelings of isolation, too much reliance on textbook learning, difficulty accessing computers and Internet in their communities, and lack of cultural understanding on the part of instructors and professors in suburban and urban areas who teach students living in rural areas. For example, people from very poor cultures in rural communities may have unique circumstances they might be dealing with and the instructor or professor teaching the online course needs to be sensitive to his/her students’ environment.

**Limitations and Weaknesses**

As mentioned previously, caution should be exercised when examining the results of the open-ended questions discovered in this research. First, there were many more women than men who participated in this survey which could cause some gender bias in the results of the study. Second, the majority of the student respondents who chose to participate were White, which could cause racial bias in the results of the study. Third, there were only three social science courses examined in this research. Perhaps future research on this topic could incorporate more social science classes in a similar study which would lead to more in-depth understanding of why rural community college students are taking social science classes online.

**Conclusion**

The findings in our study are congruent with the findings in the literature. The majority of the 118 students taking social science courses online were very happy with their online experience. Perhaps these attitudes can be explained by findings in the literature. For example, according to Hale (2007), “Shy students who are often reluctant to speak out in a traditional classroom can excel in the virtual classroom because they feel more comfortable sharing their ideas online. Additionally, being online gives students the opportunity to reflect upon their answers before participating in discussions, which increases the likelihood that their comments will be focused and on target” (p. 3). Another similar finding from Hale’s (2007) research that is in line with our findings is that she reports student satisfaction surveys reveal that the most important reason for taking a distance education course is its convenience, followed by the need to fulfill requirements for an associate’s degree or transfer.

Another positive finding from the literature that correlates with the findings in our study comes from Keim and Destinon (2008) which states how both students and instructor may
indeed become better acquainted with one another because of the opportunity for greater communication that is clearer and that can be retained and reviewed. In other words, students get the “full effect” of an instructor’s presence by being in an online class. Students can read postings, reflect on content, take as much time as they need to learn the material they are studying, and take their time in composing their responses to assignments and discussion questions. It is suggested that these numerous methods of contact with the instructor enhance a web student’s sense of community in his or her class. In conclusion, Yen and Liu (2009) suggest that ultimately it is the students with higher learner autonomy who are more likely to complete a community college online course with higher final grades.
References


Memory Enhancement Using Virtual Worlds

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One barrier to the full adoption of e-books is the fact that people find them more difficult to read and learn from (Ackerman & Goldsmith, 2011; Noyes & Garland, 2008). One of the factors involved in this difficulty may be the lack of contextual cues that affect memory. Many have had the experience of being almost able to recall some fact while being able to recall the position on the page where the fact is located. Spatial and location cues are examples of contextual cues that impact memory even though the reader did not intentionally encode those cues.

Memory starts with perception. Everything we see in the ‘real world’ comes to us from a pair of small, flat patches of neurons at the back of our eyes. We infer depth using a variety of depth perception cues. Movies that require the wearing of special glasses trick one of the better known cues, binocular disparity, so that some objects seem to be closer than the screen. However, many other depth perception cues are always in effect. It has always been possible to look at a movie or a still picture and know what objects are closer in the scene and which are farther away. Spatial cues can have a real impact on recall and they are encoded automatically.

Students have often heard that if you study in the same room that you take the test in, you will do better. This has a germ of truth, based on studies which manipulated the environmental context (Godden & Baddeley, 1975; Smith, 1979). However, it is contrary to what should be the basic goal of educators. The reason this might work in an isolated instance is that, as you study, you associate the studied materials with the environmental cues. The reinstatement of cues when you return to the room has a small impact upon the retrieval of material, such that it can help to learn in the testing room. However, educators should want the students to leave the campus with the information, not tie it to a single room.

What is probably more relevant to the real world is the concept of proactive and retroactive interference. This is the idea that when you are to recall any particular thing, learning that occurred prior to or after the item you are trying to remember tends to interfere. Studies which used a single learning session found that reinstating the learning context produced better recall (Smith, 1979). However, studies involving proactive interference found that learning several lists of words in one room, then changing rooms for the last list, produced better performance than just learning them all in the same room. Similar results were found in studies of retroactive interference in which the first list was the one separated from the rest by different context (Bilodeau & Schlosberg, 1951; Greenspoon & Ranyard, 1957). A conceptually related study (Wickens, Born & Allen, 1963) used a STM task in which short lists of either words or digits were learned in rapid succession. Performance decreased steadily over the four lists for those who kept getting the same class of stimuli. Those who changed from words to numbers or numbers to words on list 4 performed dramatically better than those who did not change stimuli type on the last list. This indicated that an aspect of interference is that of similarity of the material and that getting away from the source of interference improved performance.

In a typical 15-week semester there are 45 or so hours of instruction on the same topic, all presented in the same room. These studies on RI and PI suggest that this process is inhibiting student learning. If we varied the locations and perhaps the times of the classes it would reduce RI and PI. It would also lessen the tendency to associate things learned in school with specific environmental cues. The knowledge would become general knowledge that students would retain after leaving the campus. This would, of course, be a logistic nightmare. And, while the amount and quality of studying is much more important than where it occurs, students taking online classes, should they work on all of their classes in the same room at home, would seem candidates for even more context-produced interference.
It is possible to use virtual worlds to produce changes in the environmental context, quickly, cheaply, and without the problem of students getting lost trying to get to classrooms that change every day. The result would be to passively manipulate the encoding process such that similar memories are less likely to interfere with each other. Those without experience with such software might think that the environmental context would be even more similar if it meant that the students were always sitting at a computer. However, experienced users are familiar with a concept that some refer to as ‘presence’. It is the feeling of being present in the virtual environment instead of looking at a flat picture of a three-dimensional scene.

This is not like wearing special glasses at a 3-D movie. However, the glasses affect only one depth perception cue, that of binocular disparity. There are many other cues at work, and when you move through an environment you are affected by many of these cues. Being in direct control, not watching someone move across the screen, is a subtle but important difference. In addition, real interaction with others, not just watching others interact, promotes this feeling of being in the situation. After a session in which a significant degree of presence developed, it is common to find that memories of the time period are not of sitting in front of a computer. The memories are those of the actions you performed and the conversations that you participated in.

If instruction occurred on one virtual environment, and your memories were associated with that environment in one session, but for the next session, the environmental cues were changed, the tendency for the learning to be affected by retroactive and proactive interference would be reduced. When just considering immediate exam performance, the question of whether the reduction of RI and PI would produce better scores than studying and testing in the same environment would be an empirical question. However, it seems reasonable to expect that the reduction of interference would result in an increase in the material learned.

The nature of ebooks results in fewer physical cues that differentiated regular books. Different page dimensions, different numbers of pages, and other physical cues will all be gone, making the material harder to retrieve (Szalavitz, 2012). A whole new category of cues can be produced by producing links from an ebook into 3 dimensional representations of the material. It is not going to revolutionize the presentation of material in ebooks, but it could make up for losing cues as we move from paper books to ebooks.
References


From Reflection to Action: 
Implications for Educational Improvement

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Introduction

Teachers engage in reflective practice all the time, often when they don’t realize it. In other words, they reflect consciously or subconsciously about learning and teaching in their constant effort for improvement. In fact, this process is an indispensable part of effective teaching which can be viewed as a result of developing habitual active engagements in inquiry and reflective practice. The journey towards achieving excellence is an ongoing dynamic process; it is a habitual activity that teachers often seek to undertake on daily basis.

As the Aristotelian wisdom suggests, “We are what we repeatedly do. Excellence, then, is not an act, but a habit.” Thus, how much more a teacher can afford to be excellent largely depends upon his or her ability to invest time and sustain effort in developing these habits. Undoubtedly, good teachers engage in various forms of reflective practice in an effort to promote a deeper understanding of their students’ needs and the actions needed to meet them.

Examples of reflective practice in schools abound. Perhaps one of the most visible forms involves lesson planning, delivery, and modification. Teachers usually engage in inquiry based planning and teaching on daily basis. They constantly examine ways to plan and deliver the content, keeping in mind actions and modifications that are necessary to reach out to all students including those with unique needs and circumstances.

Regardless of the various approaches to reflective practice, the process should glean tangible actions and sound decisions. In other words, reflective practice should not be de-linked from decision-making and action-taking. Unless this balance between reflection and action is achieved, the process may not have a practical value.

This article focuses on the place of reflection in schools along with its connections to desired actionable outcomes. It highlights the underlying assumptions and frameworks that may shape practitioners’ reflection. It also delineates the connections between reflection and inquiry within the action research models and approaches. Some of the examples in which reflective practice can be utilized are provided. Finally it draws implications for teachers, educators, and administrators to capitalize on the premise and promise of reflective practice as they seek to achieve excellence in schools.

Underlying Assumptions

There several assumptions that underlie one’s reflections about a given phenomena especially in schools. Reflection should not be an abstract intellectual discourse; rather, it should be an actionable and dynamic task that is purpose-driven and deeply-rooted in a sound rationale that justifies decisions and actions. Thus the following assumptions should be kept in mind when engaging in reflection to improve practice:

- Reflection is a mediation process that involves intellectual discourse
- Reflection involves affective and cognitive domains
- Reflection is an act of discovery of oneself and the world around
- Reflective practice is a process and product
- Reflection and action go hand in hand; i.e., there is no reflection without action and there is no action without reflection.
- Reflective practice is a way of life; it shapes everything we do

Additionally, there have been varying and divergent views and assumptions about how realities around us are viewed, interpreted, and investigated. McCutcheon & Jung (1990, p. 147) synthesize various alternative perspectives that can underlie various beliefs and assumptions as Table 1 illustrates. (See Table 1)

Education in general is a stream of interdisciplinary fields of inquiry. Attempts to understand
the context of schooling in society can become a complex process. Thus, it is difficult to use a limited perspective or mode of inquiry while investigating individual, social, cultural, and political realities along with a whole host of intervening determiners that affect schools’ input and outcomes. Actionable reflective practice should be flexible enough to draw from multiple perspectives as it integrates various techniques and strategies to improve performance outcomes.

As such, it should be a pragmatic process that allows reflective teachers, educators and administrators to have the flexibility to use multiple modes of data collection and analysis. Hence, action researchers are pragmatists who view applied research as a meaningful way to understand school realities, regardless of the methodology to accomplish such tasks. They utilize whatever methods that can fulfill their inquisitive drive and practical decision-making process. Internal and external factors are very complex and cannot be easily accounted for by one-dimensional approaches and perspectives.

*Reflection-Action Connections*

Over a century ago, scholars and educators alike examined the role of reflection in bringing about desired changes in educational and social institutions. In doing so, they always made connections between reflections and consequent actions. This provided the impetus for the evolution of the action research movement pioneered Kurt Lewin who coined the term “action research” during the forties as a unique approach to study social problems and group dynamics. Lewin and his colleagues, while focusing on understanding and changing human dynamics and actions, also investigated topics and issues about solving schools’ problems through a keenly reflection-action approach. This model has been widely referred to as action research that gained a lot of popularity in various social, business, and educational institutions.

During the fifties, the action research movement found its way to study school improvement and enhance instructional treatments through inquiry-based reflective practice. Building on the previous action researchers’ efforts, Corey (1953, 1954) and his associates viewed action research as a way to account for understanding issues facing schools and improve learning and teaching (Noffke, 1995). In addition, Corey (1953) expanded on the potential of action research as a tool for teachers to engage in reflective practice, act upon their actions, and enhance their instructional leadership in diverse schools. In other words, his approach required teachers to examine, evaluate, re-evaluate, and modify their pedagogical choices and instructional practices. Embedded in this construct is the notion of empowering teachers to make their own choices based on the unique context of the learning/teaching situations. Also, it implies that teachers who are seeking to advance on the teaching effectiveness continuum, should engage in collaboration with other participants, integrate actionable reflection in their teaching, and take good practice to the next level of excellence.

Despite the waning impact of action research at times since its inception in the thirties, it continues to gain appeal among education reformers, educators, instructional leaders and researchers. The legacies of Corey and Lewin are still alive in schools today as researchers and instructional leaders continue to build on their efforts to use action research and expand on its premise. These efforts are also evident in school reform initiatives, curriculum planning, content standards, induction programs, and more importantly assessment and evaluation plans.

It should be pointed out that action research may mean different things to different people. It can also be used in unique ways depending upon the context in which it is conducted. It also depends upon the purpose of the investigation and the role of the researcher in the process. Yet, the cycle of the research process and plan of investigation may have common denominators across the board. The conceptual framework that underlies the process is widely cited in the
literature (see Mills, 2006; Wilson, 2000; Hollingsworth, 1997; Carson & Sumara, 1997; Hopkins, 1995; McClean, 1995; Elliot, 1993, Sagor, 1992; Kemmis & McTaggart, 1988).

Providing a comprehensive guide for teachers to integrate reflective practice via action research in their teaching and learning, Mills (2000, pp. 16-18) compiles a concise synthesis of some of the widely used models as follows:

- The “spiraling” cyclical process that includes planning, execution, and reconnaissance (Lewin, 1952, cited in Mills 2000, p. 17).
- The “spiral” representation of the action research that includes reconnaissance, planning, first action step, monitoring, reflecting, rethinking, and evaluation (Kemmis, 1990, cited in Mills 2000, p. 17).
- The five-step model that includes problem formulation, data collection, data analysis, reporting of results, and action planning (Sagor, 1992, cited in Mills 2000, p. 18).
- The Action Research Cycle that includes selecting an area or problem of collective interest, collecting data, organizing data, analyzing and interpreting data, and taking action (Calhoun, 1994, cited in Mills 2000, p. 18).
- The Idealized Model of the Action Research Cycle which includes observing, interpreting, planning change, acting, and the “practitioner’s personal theory” (p. 27) that informs and is informed by the action research cycle (Wells, 1994, cited in Mills 2000, p. 18).
- The Action Research Interacting Spiral that includes looking, thinking and acting as a “continually recycling set of activities” (Stinger, 1996, p. 17, cited in Mills 2000, p. 18).

There are many graphic representations that capture the action research cycle. One figure that accounts for the original scheme by Lewin is provided by Smith (2001) as Image 1 illustrates. (See Image 1)

It is worth noting that in recent years, knowledge and skill in action research have become professional expectations for pre-service and veteran teachers as well as administrators. For example, the standards-based movement requires participants to make informed decisions and select instructional practices that meet prescribed expectations and mandated guidelines. This process also requires a great deal of effort and time to find out about the nature of the organizational structures within the school and society and integrate information in curriculum planning, delivery, and assessment. Throughout this process, reflective practice takes the center stage with varying forms and shapes.

**Modes of Reflection:**

Given the intricate relationship between reflection and action, the process may take various shapes and forms. Educators and researchers have examined different ways in which one engages in reflective practice. Most notably, Schön (1983, 1987) identified certain types of the process which include the following:

1. **Reflection-in-action:** a process in which one engages in an activity, in a given situation, to accomplish a given task while consciously reflecting and refining throughout. This entails a seamless reflection during a given activity as one reshapes and redirects his/her energies to effectively accomplish the goals at hand. This purpose-driven process will result in outcomes that have a deeper rationale for creating solutions to given problems. The unknown can be revealed when both knowledge and skills are utilized to enhance performance.
2. **Reflection-on-action:** involves a posteriori process after a given plan is implemented. This may help individuals in identifying what was learned from a given action and what could be done differently the next time around. It ultimately results in evaluating actions and thinking back about what could have been done differently especially when unexpected outcomes arise.

3. **Reflection-for-action:** involves prompting one to think about what can be done as he/she develops an action plan for improving outcomes. One may reflect on integrating proven-and-tested approaches in similar or different situations given the context of what needs to be accomplished. Ultimately, one hopes that through careful reflective planning, desired change and promising consequences can follow.

Regardless of the form or mode reflection takes, there are ample opportunities in schools that warrant reflective practice. Each situation or context can be governed by certain guidelines and parameters within the context of what needs to be achieved. Following are some of the examples that require reflective practice in educational settings:

- Understanding the community and school contexts
- Lesson planning and delivery
- Seeking resources and learning about students and their families
- Meeting the diverse needs of all students special needs students.
- Assessing learning and teaching outcomes
- Solving arising problems and issues in the classroom and beyond
- Communicating with students, parents, and others (e.g. stakeholders)
- Reading and interpreting research and professional literature
- Literacy events and prompts
- Planning and delivering thematic instruction
- Integrating differentiated instructional approaches
- Accounting for strengths and weaknesses
- Classroom management and mediations techniques
- Integrating developmentally appropriate pedagogical strategies
- Activating students’ schemata and prior knowledge
- Collaborating with colleagues both horizontally and vertically

This framework of understanding reflective practice, inquiry and action has been appealing in schools and elsewhere. Glanz (2003) provides a thorough account of this actionable reflective process for instructional leaders to guide their school improvement efforts. He wittingly offers several suggestions that can guide successful research activities and projects in all settings. Below is a summary of Glanz’s (2003, pp. 2-58-263) insightful suggestions:

1. **Expect the unexpected**
   - *Action research is a common-sense, yet slippery and unpredictable process*
   - *Learn to expect the unexpected when conducting action research*
   - *Action researchers must be ready for change any moment*
   - *Be aware of the endless possibilities when conducting research*
   - *Enjoy the thrill of being engaged in the exciting, yet unpredictable process*

2. **Be receptive to both quantitative and especially qualitative approaches**
   - *Researchers should adequately incorporate qualitative and quantitative tools*
• Importance of mixed methodology approach should be emphasized
• Avoid biases in both research approaches and any of their short-sited views
• Be aware of the immediate utility of action research and avoid skepticism

3. Give it your all
• Process requires persistence and sustained effort over time
• Reflective practitioners know that their efforts will ultimately pay off
• The steps of the action research cycle are difficult, yet possible, to sustain
• Enough time should be spent collecting and compiling data
• Special attention should be paid to the writing and reporting of findings
• Careful and accurate reporting should be reflected in the final document

4. Don’t make a decision too quickly
• Careful deliberations, before taking any decisions, are required
• Avoid the decisions that might be plagued by snap judgments
• Making hasty decisions can be detrimental and fatal
• Gather all necessary information before any decision is made
• Decisions should be made based on a thoughtfully planned project

5. Keep lines of communication open and clear
• Keep clear communication among all participants throughout the project
• Prevent misunderstandings through open communication
• Effective communication should be exact and accurate
• Open communication takes place throughout the cycle

6. Appreciate your enlightened eye
• Common presumption of having “super” vision
• Supervision based on outmoded hierarchical and bureaucratic notions
• Status and position in schools don’t necessarily give one legitimacy
• Special skills and experience are critical for instructional leaders
• Seeing and looking are two different things
• Enlightened eye in action research involves seeing what others miss

7. Take action
• Actions are expected from instructional leaders and stakeholders
• Actions are “response to do something” in a given situation
• Taking action now and meeting the challenges is a critical task
• Action research is a weapon to be in optimal positions for effect positive change

Social engagement of all participants is one of the promising, and in many ways intended, consequences of education in democratic and pluralistic societies. One way to reach this goal is to closely frequently examine the schools’ diverse cultures, organizational structures, social dynamics, and educational treatments. Action research can provide the foundations and instruments that constantly make all participants reflective agents who seek a better life and reach a higher goal.

Implications
Engagement in reflective practice is a natural process for teachers and educators throughout their professional journey especially whose aspirations are the driving force to take their effective practice to a higher level. The tools and underlying beliefs that shape the reflective process equip teachers with proper means to perform their roles to benefit all students and
participants. Certainly, benefits for teachers themselves are enormous when they persist in integrating inquiry and reflection in their learning and teaching. The following are some of these benefits:

- Reflective practice helps teachers make informed instructional choices
- Reflective practice helps teachers unwrap (unpack), and meet standards in schools including professional and content standards
- Arising issues in schools in general and classrooms in particular can be resolved through reflective practice
- Teachers can take their teaching effectiveness to the next level of excellence through reflective practice
- Reflective practice not only promotes teachers’ knowledge but professional skills as well
- Reflective practice is an on-going professional journey, not a destination
- Reflective practice enhances a teacher’s personal confidence and instructional roles
- Reflective practice promotes an understanding of what goes on in the minds and lives of learners

At the same time, reflection should be integrated purposefully and systematically as teachers seek to put their knowledge and skills to action. The process should be guided by many principles and objectives that ultimately result in maximizing learning and teaching performance outcomes. Effective reflective practitioners assume the role of “educational detectives” who seek to understand what goes on in learning/teaching contexts along with various associated phenomena. Thus, they utilize an inquiry based approach to integrate workable and relevant strategies and adaptations. There are several guidelines and expectations that define the roles of teachers as reflective practitioners in schools today. Following are some of the criteria that outline these roles:

- Reveals underlying aspects of classroom dynamics and subtle behaviours
- Engages in reflective practice regularly/habitually, not in a mechanical manner
- Fosters a culture of learning through inquiry that drives instructional choices
- Looks into rather than at what’s going on and unpacks the classroom culture
- Examines the world of reality from multiple lenses and dimensions (e.g. cognitive/affective)
- Cites relevant and clear lines of evidence with substantive details and meanings
- Thinks out loud in his/her reflective responses with actionable items and plans
- Is consistent and clear throughout the reflective journey as a process and product
- Varies methods of thought processes and mediation techniques (e.g. metacognition)
- Establishes goals and objectives for future teaching and learning

**Conclusion**

Engagement in reflective practice and inquiry is a natural process for teachers, educators, and administrators is essential for educational renewal and continual improvement. The tools and underlying beliefs form a solid foundation for school improvement and reform. Certainly, benefits for teachers themselves are enormous when they persist in integrating reflective practice and inquiry in their learning and teaching.
References
### Table 1: Contrasting Beliefs and Assumptions

<table>
<thead>
<tr>
<th>Beliefs and assumptions about:</th>
<th>Positivism</th>
<th>Interpretivism</th>
<th>Critical Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nature of reality</td>
<td>Single, measurable, fragmentable</td>
<td>Multiple, constructed, holistic</td>
<td>Social, economic Exists within problems of equity and hegemony</td>
</tr>
<tr>
<td>The relationship between the knower and the known</td>
<td>Separate</td>
<td>Interrelated, dialogic</td>
<td>Interrelated, embedded in society</td>
</tr>
<tr>
<td>The nature of understanding</td>
<td>Events are explained in terms of real causes or simultaneous effects</td>
<td>Events are understood through active mental work, interactions with external context, transactions between one’s mental work and the external context</td>
<td>Events are understood in terms of social and economic hindrances to true equity</td>
</tr>
<tr>
<td>The role of value in research</td>
<td>Value free</td>
<td>Value bounded</td>
<td>Related to values of equity</td>
</tr>
<tr>
<td>The purpose(s) of research</td>
<td>Discover laws understanding reality</td>
<td>Understand what occurs and the meanings people make of phenomena</td>
<td>Uncover and understand what constrains equity and supports hegemony to free oneself of false consciousness and change practice toward more equity</td>
</tr>
</tbody>
</table>

**Image 1: Action Research Cycle**
William Shakespeare: Midwife to the Modern Republic
Some Reflections on The Merchant of Venice
and The Taming of the Shrew

Ric Williams
Glendale Community College
The wonder which Shakespeare’s spectacles arouse is an invitation to reflection rather than an incitement to praise.

John Alves, Shakespeare’s Understanding of Honor, p. 248

The general run of men and people of superior refinement say that the highest of all goods achievable by action is happiness; but with regard to what happiness is they differ...for the former think it is some plain and obvious thing like wealth or pleasure, which is the reason why they love the life of enjoyment... and the mass of mankind are evidently quite slavish in their tastes. [But] people of superior refinement and active disposition identify happiness with honor; for this is, roughly speaking, the end of political life.

Aristotle, Nicomachean Ethics, I, 4-5

William Shakespeare was born in 1564 and died in 1616, and the evidence supplied by his thirty-nine major or titled plays and poems is that he viewed his era as an epoch-making moment in the development of Western Civilization. The most superficial and also the most powerful evidence that this was indeed his view is the fact that he located nearly all of his modern or renaissance and post-renaissance plays in England or Italy. To understand why the locales of those plays is important we have to start from the fact that acquisition is a necessity of our nature; that to live and even to live comfortable or affluent we must somehow acquire the household or economic goods; and that broadly speaking we can comply with that necessity either by acquiring through military means, that is, through war and conquest, or by economic means, that is, through trade and commerce. In the ancient world those alternatives were represented by republican Rome and Carthage. Rome’s defeat and destruction of Carthage during the three Punic Wars established acquisition through war and conquest as the authoritative model which was followed by the major national monarchies and aristocracies that ruled in England and Western Europe after the fall of the Roman Empire. However, beginning in roughly the thirteenth century a “Carthaginian” commitment to acquisition through economic means emerged as an alternative to the prevailing neo-Roman militarism, and that revived or neo-Carthaginian commercialism was centered in such Italian city-states as Venice, Naples, Florence and Genoa. Thus, while war was at the center of Shakespeare’s English histories, economic life was featured most memorably in two of his Italian plays—The Merchant of Venice and The Taming of the Shrew.

At the heart of The Merchant of Venice is the agreement between Shylock the Jewish money lender and Antonio the Christian merchant. By the terms of their agreement Shylock loaned Antonio 3,000 ducats and as his surety or collateral for the loan Antonio pledged a pound of his flesh. When Antonio could not repay the loan Shylock insisted that the Venetian court award him the pound of flesh, and had it not been for the intervention of Portia, Antonio would have had to forfeit his pound of flesh and with it his life. That Shylock was moved by an entirely understandable and lethal hatred of Christians in general and of Antonio in particular goes a long way toward understanding his demands, but we cannot abstract those demands from the concrete circumstances in which they were made. In 1588 the Holy Father in Rome, Pope Sixtus V, had conferred Papal sanction of the Spanish Armada’s assault on England and three years earlier he had issued a ban on the lending of money at not merely usurious rates but at any rate of interest. In so doing he was attempting to dry up all private sources of what we today would call “venture capital.” The interest on a loan, after all, is the income which lenders expect to earn from their borrowers, and the act of prohibiting the lenders from deriving any income from the “sale” of their funds is tantamount to denying them any reason for putting those funds at risk. This “exclusionary rule” aimed at making public funds or monies raised through the taxing powers of the gov-
ernment to the only legitimate financial source for any venture. Not surprisingly, and to the detriment of the great body of the people, the taxes financed the highest priority activities of the long-established and conjoined political and ecclesiastical authorities: royal and dynastic wars and the construction of magnificent cathedrals.

That the Vatican would try to choke off all private financing and hence the funds for commercial ventures is a clear indication of how seriously the ancien regime or, as it called itself—the “moral economy,” took the threat to the power, privileges and prestige of that ruling theologico-political establishment posed by “the new kid on the block”—the market economy. That Shakespeare would dramatize this teaches us that he too understood that the spirit of trade and commerce represented a serious challenge to that very old and deeply entrenched “moral economy.” But we cannot leave it at this. The economic struggle was no more than the cutting edge or the tip of the iceberg of the far broader and deeper theologico-political revolution that was launched by Martin Luther’s 1517 protest against the Church’s indulgences. Writing in his first or 1835 volume of Democracy in America, Alexis DeTocqueville said of one of Protestant sects which emerged in Shakespeare’s England and which settled in our New England that it was a “profoundly democratic and republican civil religion.” To complete the picture, the economic, theological and political upheavals were joined by the scientific revolution launched by one of his contemporaries—Francis Bacon. In his utopia, The New Atlantis, Bacon envisioned a regime or way of life which, as the result of the “experiments of light” (pure research) and “experiments of fruit” (applied technologies) conducted by the “Fellows of Solomon’s House” (the modern natural scientists), would provide for increased longevity, greater fertility and ever-expanding productivity; or, as he characterized it, for the relief of the human estate. Specifically, this effort aimed at the relief of the wretched conditions which the vast majority of people had endured for so very long, which is to say that its intention was democratic, and not surprisingly the work was published in 1627 or a year after Bacon’s death.

We can take it for granted that Shakespeare was fully aware of the democratic “vortex” swirling around him; and, as we will see, The Taming of the Shrew contains his reflections on the first principles of the democratic regime, on the fundamental problems inherent in those principles, and on a principled and at the same time democratic manner for addressing those problems.

The first character we meet in the play’s uniquely long induction is Christopher Sly, a drunken, deadbeat bum who is thrown out of a tavern for refusing to bay his bill, who then falls into a drunken stupor, and who would have died had it not been for the fortuitous arrival of a nameless lord and his huntsmen. The lord decides to “practice on this drunken man” (Ind. I, 37) and orders his huntsmen to take Sly to his estate, to have his servants attend him, dress him in lordly garments, place him in his bedchamber, tell him when he awakes that for seven years he has been in a delirium, and that to celebrate his recovery a troop of players who by chance have just arrived are going to perform a play. When “Lord Sly” asks what kind of play it is, he is told that it is “a comedy,” that it is about “household stuff” and that it is “a kind of history.” (Ind. 2, 140, 43-44) It is quite likely that Sly has either lost interest or fallen asleep by the end of act I, scene 1, but in any event we cannot help but wonder why Shakespeare would offer a performance to only one very inattentive man. Sly, I believe, personifies something which is coeval with man: the joyless quest for joy that lies at the far end of the road of hedonism, that is, of that ever-present human tendency to equate happiness with pleasure. While the drunkard represents a most glaring form of this equation, demos’ principles encourage other less obtrusive but no less destructive manifestations of it, and these are the central concerns of Shakespeare’s most democratic play: The Taming of the Shrew.
This play is set in Padua Italy and his fictitious Padua is undergoing a regime change from the older generation’s closed agrarian oligarchy represented by Baptista, Gremio, Hortensio/Licio and the Widow to the younger generation’s liberal democracy represented by Lucentio/Cambio, Tranio/Lucentio, Biondello, and Bianca. Shakespeare’s Padua, however, is not a pure fiction, for minus the hereditary titles of nobility and the laws of primogeniture and entail, it is a “photo copy” of the English and continental feudal systems. Laws of primogeniture required the undivided transmission of titled lands to the first-born son of the “lord of the manor,” while laws of entail barred the sale or gift of titled lands to anyone who was not a blood relative of the current holder. By these devices, membership in the class of “the rich and the well-born” was confined to a small minority of the population, and the Paduan equivalent of these laws was the dowry or the bride-price paid by the groom’s father to the bride’s father. This allowed fathers to sell their daughters to the highest bidders, and by setting very high “reserve prices” or minimum bids for the “auction” of their valuable “commodities,” rich and well-born fathers could insure that only the no-less rich and well-born bidders could take part in the auction; thus providing them with handsome returns on their “investments” in their daughters while also insuring that wealth would remain concentrated in the hands of the small wealthy minority. However, by the standard of this “best-case scenario,” and even though he was Padua’s richest man and could operate under the golden rule: “he who has the gold makes the rule,” Baptista had a problem. He had one very valuable and easily marketable asset—Bianca, and a huge economic liability—Katherina.

Knowing that he is going to have to offer some man a large dowry or “disposal fee” to “woo, wed, bed,” and “rid the house” of Katherina, (I, 1, 146-7)* he decrees that before he will sell Bianca to the highest bidder, a husband must first be found for Katherina, and that until that time he further decrees that he will allow only tutors but no suitors to be with Bianca. This leads to a series of schemes hatched by Bianca’s would-be suitors—Hortensio, Gremio and Lucentio—to get around Baptista’s “tutors but no suitors” decree. Disguised as Litio, a music tutor, Hortensio attempts to get close to Bianca but that effort ends when Katherina breaks a lute over his head. From then on he is effectively eliminated as a suitor for Bianca, and having failed with Bianca he will later settle for second best by marrying a wealthy woman known only as the Widow. Gremio, who is identified as a pantaloon or an old fool, recruits a young scholar to court Bianca for him under the pretense of instructing her in various languages, and he presents that young man under cover as Cambio. However, Cambio is in fact Lucentio who, while his servant Tranio has willingly assumed his identity in order to conduct dowry negotiations with Baptista, has gone under cover as Cambio to court Bianca for himself.

While all of this is going on the problem of cutting the Gordian knot or finding a husband for Katherina still remains, and to the great relief of the plotters Petrucho arrives from Verona declaring that “I come to wive it wealthily in Padua; if wealthily, then happily in Padua.” (I, 2, 76-7) When Hortensio informs him that although she “is intolerable curst, and shrewd, and froward beyond all measure,” “she shall be rich, and very rich,” (I, 2, 90-1, 63-4) Petrucho tells him that “as wealth is the burden of my wooing dance” I will marry her “be she as foul as was Florentius’ love, as old as Sibyl, as curst and shrewd as Socrates’ Xanthippe, or a worse.” (I, 2, 69-72) When Hortensio introduces him to Baptista, Petrucho tells him “my business asketh haste, and every day I cannot come to woo; then tell me, if I get your daughter’s love, what dowry shall I have with her to wife?” (II, 1, 116-17, 126-7) Baptista answers “After my death, one half of my lands, and, in possession, twenty thousand crowns.” (II, 1, 128-9)

This clears the way for Lucentio/Cambio to secretly court and later to secretly marry Bianca. It also sets the stage for Tranio/Lucentio to offer Baptista the value of the cargoes in seventeen of
Vincentio’s merchant ships as a dowry for Bianca, and being unable to match this offer, Gremio drops out of the bidding. Baptista demands assurances and because the real Vincentio knows nothing of what has been going on, Tranio/Lucentio is forced to come up with a “supposed Vincentio” to vouch for his extravagant pledges, which he does by persuading an itinerant pedant to impersonate “his” father. Thinking that he is dealing with Lucentio and Vincentio, Baptista accepts the proffered dowry and sets the marriage of Bianca and Lucentio for the following Sunday. Before then, however, the real Lucentio and Bianca have found a priest to secretly marry them, and shortly after that the real Vincentio arrives in Padua. His arrival unmasks all of the conspiracies and in a comic display of fatherly indulgence, he forgives all of the conspirators. This sets the stage for the play’s culminating events—the wager on their brides’ obedience lost by Lucentio and Hortensio and won by Petruchio, Katherina’s lengthy speech after she had insured her husband’s victory; and his comment: “Come, Kate, we’ll to bed. We three are married, but you two are sped.” (done for) (V, 2, 200-01) that is a most fitting postscript both for her speech and for the play as a whole. To understand why he won and why the future “bodes peace, and love, and quiet live, an awful rule, and right supremacy, and, to be short, what not that’s sweet and happy (V, 2, 121-23) for Petruchio and Katherina, and nothing like that for the other two grooms and their brides, we must return to the exchange between Lucentio and Tranio at the beginning of Act One.

On arriving in Padua, Lucentio declares that: “Therefore, Tranio, for the time I study virtue, and that part of philosophy will I apply that treats of happiness by virtue specially to be achieved.” (I, 1, 17-20) In response to this, Tranio says that he “is glad that you thus continue your resolve to suck the sweets of sweet philosophy. Only, good master, while we do admire this virtue and this moral discipline, let’s be no stoics, nor no stocks, I pray, or so devote to Aristotle’s checks as Ovid be an outcast quite abjured.” (I, 1, 27-33) That part of philosophy that treats of happiness by virtue specially to be achieved is Aristotle’s *Nicomachean Ethics*, from which we learn that “Moral virtue is a state of character concerned with choice, lying in a mean, i.e. the mean relative to us, this being determined by a rational principle, and by that principle by which the man of practical wisdom would determine it.” (1106b36-41) We also learn that we must always be on guard against pleasure since it is for the sake of pleasure that we most often go wrong, and that because young men’s passions get in the way they are bad listeners to lectures in political science. Lucentio more than confirms this because from the minute he sees and becomes instantly infatuated with Bianca; he completely abandons his resolve and devotes all of his thoughts and schemes to wooing, wedding and bedding her.

Lucentio is not alone in this for all of the Paduan democrats: Tranio, Biondello, Hortensio, Gremio, Bianca, Baptista and the pedant, refuse to be restrained by any of Aristotle’ checks, that is, by the self-restraints on appetite that are mandated by the various moral virtues, or by those indispensable means to the end of happiness. On the contrary, in everything they say and do, they display their utter indifference and even contempt for those means. In order to win Bianca, Lucentio and Tranio are utterly prodigal in their willingness to spend Vincentio’s money without his knowledge. Ignoble or base lies, that is, lies designed to benefit the liar at the expense of those being lied to, are the ubiquitous stock-in-trade of all of the Paduans. Avarice is the motive or driving force behind essentially everything they do. The hallmark of all of their contrivances and deceptions is their habitual determination to treat everyone around them as serviceable tools or convenient means for their various self-indulgences, as witness most egregiously Baptista’s determination to prostitute his own daughters. In all of this they display not only their own moral vices but also the systemic injustices or failures to give to others what is rightfully due to them.
which are inherent in the rampant self-indulgences to which the democratic regime is intrinsically prone. As Aristotle observed in *The Politics*, “There are two features which are generally held to define democracy. One of them is the sovereignty of the majority; the other is the liberty of individuals.”

The consequence of regarding the will of the masses as sovereign is to raise both the view of “the general run of men” that happiness “is some plain and obvious thing like wealth or pleasure” and their “love of the life of enjoyment” to the level of the regime’s highest aspiration and highest good. Furthermore, when “liberty is assumed to consist in doing what one likes,” the result is that “in these extreme democracies, each individual lives as he likes—or as Euripides says, ‘for any end he chances to desire.’ “This,” Aristotle immediately adds “is a mean conception of liberty. To live by the rule of the constitution ought not to be regarded as slavery, but rather as salvation.” (Cf, *The Ethics* 1, 4-5 and *The Politics*, 1310a12) That the Paduans will pay a high price in the coin of unhappiness for living according to that mean conception of liberty is the lesson which Shakespeare conveys through the results of the grooms’ wager (noted above) at the wedding banquet. Prior to the bet, Bianca, whose sleep was interrupted by the argument between the Widow and Katherina, had escorted herself, the Widow and Katherina from the banquet hall, and in their absence the three grooms agreed that the one whose wife returned on his call would win the bet. Lucentio bids Bianca come to him but she refuses, saying that she is busy and cannot come. Hortensio then entreats the Widow to return and she says that if he wants to see her, he can come to her because it is the poor, after all, who must come begging at the doors of the rich. Petruchio then commands Katherina to return, to everyone’s amazement she does, and Baptista offers Petruchio another 20,000 crowns “to another daughter who is changed as she had never been.” (V, 2, 127-8) Petruchio declines the offer and instead tells Katherina to teach the Widow and her sister “what duty they do owe their lords and husbands,” and in the play’s culminating speech, she does so. (V, 2, 144)

Her speech is emphatically about the “household stuff” spoken of in the induction, but as Aristotle and Shakespeare both knew full well; household stuff is also political stuff. As Aristotle noted,

One may find resemblances to the constitutions and, as it were, patterns of them even in households...The association of man and wife seems to be aristocratic; for the man rules in accordance with his worth, and in those matters in which a man should rule, but the matters that befit a woman he hands over to her. If the man rules in everything the relation passes over into oligarchy. Sometimes, however, women rule, because they are heiresses; so their rule is due to wealth and power, as in oligarchies...Democracy is found chiefly in masterless dwellings (for here everyone is on an equality), and in those in which the ruler is weak and everyone has license to do as he pleases. (*The Ethics*, 1160b-1161a9)

The democratic (Lucentio and Bianca) and the oligarchic (Hortensio and the Widow) marriages are not only bad but they are also the “children” of bad “parents”: of the democratic and oligarchic regimes. Lasting reform of the marriages must necessarily then involve the reform of their parental regimes. But why would Shakespeare choose a buffoon and a shrew to be the architects of both of those private and public reforms? Justice, which is the preserver of all partnerships—marital, economic and political—is a principle which is foreign to the unjust democratic and oligarchic elements of the Paduan regime, and it is entirely appropriate that he would make two actual foreigners—the real Vincentio and Petruchio—and Katherina who, although she was
born in Padua, nevertheless lives there as a “resident alien,” the agents of his ameliorative efforts.

Through international trade and commerce, Vincentio has accumulated far more wealth than even Baptista, and this reminds us that the commercial economy is far more productive than the Paduan or agrarian economy. This has enormous political significance in a democratic regime because when the ruling majority equates happiness with wealth and pleasure, it is essential that the economy be highly productive. In any event, the international market is a market of willing sellers and willing buyers, that is, it is a free market or one in which neither the sellers nor the buyers can be compelled by the laws of their respective nations to complete their transactions at price-points that are unacceptable to them. The international market is also a free market in the sense that there are numerous sellers and numerous buyers. In a market that is free in both of these senses, successful exchanges are based on the principle of equal value given for equal value received, on the rule of measure for measure, or on the principle that the just is the equal. In short, as long as there are multiple buyers and sellers and as long as one party cannot use the law’s power to compel the other to complete what he judges to be an unfair transaction, the market’s exchanges will comport with the principles of justice. In contrast, in Padua and in the feudal or agrarian oligarchies for which it is a surrogate, these principles of justice are systematically violated. In such agrarian oligarchies land is the source of national wealth; the rich and the well-born “monopolize” that source as they also “monopolize” the law-making power; and using these “monopolies” for their own advantage, they set prices for their products that are far above the just or fair market prices that are fostered by the principles of the market economy. Having drawn certain principled implications from Shakespeare’s brief and ameliorative excursion into economic history, we now must turn to the efforts of the two foreigners—Petruchio and Katherina—who are the agents of his deep and comprehensive intention to promote the democratic regime’s excellences while mitigating against its defects.

We cannot adequately deal with the nature of their proposed reforms without first dealing with the nature of the reformers, but in raising the question of their natures we immediately run into a set of professorial answers that makes it extraordinarily difficult to answer that question in any satisfactory way. This is particularly true for Katherina. The academic stock-in-trade has it that she is a weak and submissive woman who is so browbeaten and intimidated by the malevolence and the power of her male oppressors that meek submission to her domineering masters is her habitual course of action. The same feminist sensibilities which have conjured up this Shakespearian “Woozle” pass off his chauvinism and sexism by claiming that as a child of his times who could not transcend his times, he could no more that give us reflections of the benighted times in which he lived. Finding our way through this maze of academic misconceptions requires proper starting points, and we can find those in such strong women as Lucrece, Volumnia, Cordelia, Portia and Katherina.

Shakespeare celebrates Lucrece (Lucretia Collatinus) as the founder of the Roman republic, Volumnia as its preserver, and Portia, for the justice which she brings to Belmont and Venice. That he does so is entirely fitting and proper on two counts: only women can give birth, and between women and men, women are best at the work of preservation, which means that justice finds its home most easily among women because justice is the preserver of all partnerships—marital, economic and political. We note, too, that only two of Shakespeare’s thirty-nine works: The Rape of Lucrece and The Taming of the Shrew point us to a single woman and an action involving that woman. This twin pairing of the two works suggest that as his Lucrece was the founder of republican Rome, it might also be true that he cast his Katherina as the founder, or
better, as the preserver of the new-born modern democratic and hence commercial republic. But what would motivate her and, more importantly, is she capable of undertaking such an extensive and arduous enterprise for the public benefit?

As for her motive, she is certainly driven by anger or moral outrage at everything and everybody in Padua. In her eyes, dowry negotiations are “refined” forms of prostitution; she denounces her father for being his daughters’ procurer; she rails at Bianca and then binds and beats her for what she takes to be her docile acceptance of her lot as a mere commodity in the marital market; she forcefully expresses her disdain and contempt for such “wimpish” Paduan men as Hortensio and Gremio; (Cf, I, 1, 48-66 and 79-80) and in the wake of all of this she tells her father “Talk not to me. I will go sit and weep till I can find occasion of revenge.” (II, 1, 38-9) The occasion for her revenge will not come until the last scene of the play and then it will take the form of her just speech, a speech which comes as late as it does because it had to be preceded by the lengthy work of her taming, that is, of her reformation and education. Her taming takes place in what Tranio describes as “the taming school” headed by “master Petruchio” who declares that “I’ll curb her mad and headstrong humor.” (IV, 2, 56-8, IV, 2, 209) To understand what master Petruchio means by this, it is necessary to return to Aristotle’s *Ethics*.

We learn there that good temper is the virtue that governs anger. Good temper involves being angry at the right thing, at the right time, in the right circumstances, and to the right degree or displaying anger in a manner which is determined by the rational principle and by the man of practical wisdom. Like the other ten moral virtues, good temper is the mean between two moral vices: irascibility or the vice of excess and inirrascibility or the vice of deficiency. Clearly, Katherina’s vice is irascibility and liberating her from that curse for the sake of good temper requires not the suppression but, rather, the moderation of her excessive and hence bad temper. For this effort to succeed the master must possess practical wisdom and the student must be capable of absorbing the master’s schooling in it. But on its face the claim that Petruchio the buffoon and Katherina the shrew have met those prerequisites can only appear to be comical and even absurd. However, a close look at his buffoonery reveals his repetitive and consistent efforts to subject everything that the Paduans regard as serious, grave and solemn to comic ridicule, derision and scorn.

He arrives in Padua drunk and brawling with Grumio. He outdoes even the Paduans in declaring his mercenary motive for being there. He makes a mockery of their orderly courtship practices. He previews his courtship conversation with Katherina by displaying his skill in saying the thing which is not, that is, in lying. “Say that she rail, why then I’ll tell her plain she sings as sweetly as a nightingale. Say that she frown, I’ll say she looks as clear as morning roses newly washed with dew. Say she be mute and will not speak a word, then I’ll commend her volubility and say she uttereth piercing eloquence. If she do bid me pack, I’ll give her thanks as though she bid me stay by her a week.” (II, 1, 178-186 Cf, II, 1, 256-66) On their wedding day, he arrives hours late, evidently drunk and dressed in absolutely outlandish apparel. During the marriage ceremony he hits the priest, guzzles the sacramental wine, throws what’s left in the glass in the sexton’s face, and kisses his bride “with such a clamorous smack that at the parting all the church did echo.” (III, 2, 180-81) He then cuts short the bridal banquet by hauling Katherina off even before the celebration has begun, and on arriving as his “estate” he berates his servants, hits them, throws the food and dishes at them, forbids Katherina to eat, and trashes their bedchamber. Sometime later, and after receiving an invitation to Bianca’s wedding, he tells Katherina that a tailor and a haberdasher have arrived to provide her with a cap and a gown for the ceremony. When the cap and gown are presented to her, he finds fault with both and refuses to accept them.
He then tells Katherina “Well come, my Kate, we will unto your father’s even in these honest mean habiliments. Our purses shall be proud, our garments poor, for tis the mind that makes the body rich, and as the sun breaks through the darkest clouds, so honor peereth in the meanest habit.” (IV, 3, 175-180) This said, however, he tells Hortensio to see that the tailor and haberdasher are paid, and when they arrive in Padua she will get her cap and gown by completing her remaining “course work” through a series of disagreements with him.

In all of their disagreements, Petruchio invariably says the thing which is not, which is to say that he lies. The first one occurs when, against his insistence that it is seven o’clock, she correctly points out that it is “two at most.” Then, during their journey to Padua he remarks about “how bright and goodly shines the moon.” In response, Katherina says “The sun. It is not moonlight now.” He reacts to this by telling her “It shall be moon, or star, or what I list before I journey to your father’s house,” and Katherina resolves this impasse by announcing “be it moon, or sun, or what you please. And if you please to call it a rush candle, I vow it shall be so for me and what you will have it named, even that it is, and so it shall be so for Katherina.” (IV, 5, 1-16, 24-5) Immediately after this, they have the following exchanges: Petruchio: “I say it is the moon.” Katherina: “I know it is the moon.” Petruchio: “Nay, then you lie. It is the blessed sun.” By way of ending this game of “liars’ poker,” Katherina declares “Then God be blest, it is the blessed sun. But sun it is not, when you say it is not, and the moon changes even as your mind. What you will have it named, even that it is, and so it shall be so for Katherina.” (IV, 5, 18-25) At this point, the real Vincentio appears and Petruchio says “Fair lovely maid, good day to thee. Sweet Kate, embrace her for her beauty’s sake.” To prove that she is just as colorful and as inventive a liar as he is, she greets Vincentio, saying, “Young budding virgin, fair and fresh and sweet, whither away, or where is thy abode? Happy the parents of so fair a child! Happier the man whom favorable stars allot thee for his bedfellow.” (IV, 5, 37-44) Petruchio then “corrects” her: “Why, how now, Kate? I hope thou art not mad! This is a man, old, wrinkled, faded withered—and not a maiden as thou sayest he is.” Katherina then admits her “mistake”: “Pardon, old father, my mistaking eyes have been so bedazzled by the sun that everything I look on seemeth green. Now I perceive thou art a reverend father. Pardon, I pray thee, for my mad mistaking” (IV, 5, 46-53)

Thus, she earns her cap and gown. But how did Petruchio’s buffoonery prepare her for graduation? Why did she have to demonstrate her mastery of the art of lying in order to get her diploma? Why was she even willing to enroll in his school in the first place? And, finally, why did she not leave without graduating? Until we answer these questions we will not be able to understand let alone appreciate her “commencement” address at the bridal banquet.

At the end of their rather light-hearted, increasingly convivial and mildly ribald courtship “chat,” Katherina asks Petruchio “Where did you study all this goodly speech? He answers, “It is extempore, from my mother wit,” and she no less wittily replies, “A witty mother, witless else (without) her son.” (II, 1, 277-79. See also sonnet 94.) While in all of his major works Shakespeare speaks to us through the characters he created, Katherina’s rejoinder teaches us that he would have been particularly “speechless” without his Petruchio who he fashioned as the primary agent of his intention. That intention was introduced by the nameless lord who had his players promise Sly “a pleasant comedy, for so your doctors hold it very meet, seeing too much sadness hath concealed your blood, and melancholy is the nurse of frenzy. Therefore they thought it good you hear a play and frame your mind to mirth and merriment, which bars a thousand harms and lengthens life.” (Ind. 2, 131-38) From the time of their courtship chat and in everything he said and did from that point on, Petruchio worked to frame Katherina’s mind to mirth and merriment.
What better antidote than that to her melancholy, to her morose brooding and simmering anger, and the frenzy which life in Padua had built up in her? It certainly worked. By the time of their encounter with the real Vincentio, levity had replaced gravity and her anger had given way to her playful, light-hearted and ironic speech. Katherina, however, had learned not only from what he said but also from what he did: from the constant public displays of buffoonery which had made him the “talk of the town.” Or better yet, and as witness Biondello” and Gremio’s gossipy reports of what he was wearing and what he said and did on his wedding day, he was spoken not as a man ever to be taken seriously but rather as a laughingstock. (Cf, III, 2, 42-70 and III, 2, 159-184) In this and throughout, and as he had to, he concealed his serious and revolutionary intention. As a foreigner he had to appear to the Paduans as a man of no account and a laughingstock. Had they even begun to suspect that this foreigner meant to bring foreign and hence strange ways to their city, they would certainly have denied him any hearing and, in all probability, have driven him out of town. Katherina’s situation, though, was very different.

She was, in the first place, a Paduan or “one of their own,” even though she was utterly out of step with the ways of the city. But much to the amazement of the Paduans, she underwent a “miraculous” transformation at the bridal banquet. After she had won Petruchio’s wager with Lucentio and Hortensio by returning to be banquet hall, Baptista is so amazed that he swears by the Virgin Mary; Lucentio says “Here is a wonder, if you talk of a wonder;” and Hortensio says, “And so it is. I wonder what it bodes.” Petruchio tells them that it bodes “what not that’s sweet and happy,” and Baptista says “Now fair befall thee, good Petruchio! The wager thou hast won, and I will add unto their losses twenty thousand crowns, another dowry to another daughter, for she is changed as she had never been.” (V, 2, 12, 19-20, 23-28) Petruchio declines the offer and after sending Katherina to bring the Widow and Bianca back to the banquet room, he tells her to “charge these headstrong women what duty they do owe their lords and husbands.” (V, 2, 144-46) As a reformed drunkard is recognized by one and all to best suited to persuading current drunkards to turn their backs on “demon rum,” so too in the eyes of the Paduans has Katherina—the reformed shrew—established her authority to speak to the Widow and Bianca about their shrewishness. But what would motivate her to do so? She now has her “occasion of revenge,” (II, 1, 39) but rather than strikingly angrily at her tormentors, she will seek instead to ameliorate her city’s systemic injustices by offering such principles as will address the problems which are intrinsic not only to Shakespeare’s Padua but also to the modern commercial republic. But why does she deliver such a marvelously ironic speech? Where did she come up with all that “goodly speech?” It was certainly “extempore.” Was it from her “mother wit?”

Like Petruchio’s mother wit, Katherina’s is no less capable, as we have seen, of saying the thing which is not. In addition, hers is capable of giving birth to a range of ideas, that is, of extracting from many concrete or sensible things the one abstract and intelligible idea or common class characteristic which is present in the many sensible things. In this regard, and as witness the contrast between Katherina’s ready wit on the one hand and Bianca’s childish attempt at imagery and the Widow’s inability to see beyond the narrowly sensible on the other, Katherina is very much wiser than the two women to which her speech is directed. (Cf, II, 1, 190-279 with V, 2, 40-45 and V, 2, 16-34) Petruchio, who is now the master of the bridal “symposium,” instructs his “law-giver” to begin with the Widow and Katherina delivers the play’s longest and culminating speech.

Fie, fie! Unknit that threat’ning unkind brow,
And dart not scornful glances from those eyes
To wound thy lord, thy king, thy governor.
It blots thy beauty as frosts do bite the meads,
Confounds thy fame as whirlwinds shake fair buds,
And in no sense is meet or amiable
A woman moved is like a fountain troubled,
Muddy, ill-seeming, thick, bereft of beauty,
And while it is so, none so dry or thirsty
Will deign to sip or touch one drop of it.
Thy husband is thy lord, thy life, thy keeper
Thy head, thy sovereign, one that cares for thee,
And for thy maintenance commits his body
To painful labor both by sea and land
To watch the night in storms, the day in cold,
Whilst thou liest warm at home, secure and safe,
And craves no other tribute at thy hands
But love, fair looks, and true obedience—
Too little payment for so great a debt.
Such duty as the subject owes a prince,
Even such a woman oweth to her husband;
And when she is froward, peevish, sullen, sour,
And not obedient to his honest will,
What is she but a foul contending rebel
And graceless traitor to her loving lord?
I am ashamed that women are so simple
To offer war where they should kneel for peace,
Or seek for rule, supremacy, and sway,
When they are bound to serve, love, and obey.
Why are our bodies soft and weak and smooth,
Unapt to toil and trouble in the world,
But that our soft conditions and our hearts
Should well agree with our external parts?
Come, come, you froward and unable worms!
My mind hath been as big as one of yours,
My heart as great, my reason haply more
To bandy word for word and frown for frown;
But now I see our lances are but straws,
Our strength as weak, our weakness past compare,
That seeming to be most which we indeed least are.
Then vail your stomachs, for it is no boot,
And place your hands below your husband’s foot;
In token of which duty, if he please,
My hand is ready, may it do him ease. (V, 2, 152-195)

This speech returns to the theme of the play’s induction; specifically, to Sly’s chronic intoxication and to the wreckage that had become the life of that unjust, penniless, homeless and friendless drunkard. Clearly neither the Widow nor Bianca share Sly’s vice, but it is nevertheless true that both have become “intoxicated” and hence entirely self-absorbed and self-seeking in their own ways. In the widow’s case the fact that she was far wealthier than the man she had
married had so completely “gone to her head” that it was not possible for her to entertain any thought of her obligations to her new husband. In Bianca’s case, her youth, her beauty and her father’s wealth had so intoxicated her that the thought that she owed something both to her husband and to the community that was celebrating her marriage was simply foreign to her. On their parts, Hortensio and Lucentio are no less “intoxicated” and hence no less self-absorbed and self-seeking: Hortensio by the “wine” of his wife’s great wealth and Lucentio by the “drug” of his wife’s paternal wealth, youth and beauty. Their mutual intoxication is a reflection of the larger oligarchic and democratic regimes which have “subliminally” formed and shaped their understandings of the nature of the marital partnership, and their oligarchic and democratic marriages are simply reflections of those larger political partnerships.

At both levels—at the level of the personal and the political—the partnerships were unjust because the rulers governed according to their own regard for their own interest and not for the sake of the common good. The marital and political alternative to these bad partnerships is an aristocratic partnership in which “the man rules in accordance with his worth, and in those matters in which a man should rule, but the matters that befit a woman he hands over to her.” (Cf, pg. 5 above) That there are matters that befit both husbands and wives is a consequence of the division of labor that is present in a marriage. As a general rule, men work outside the home to acquire the various and assorted economic or household goods. As a general rule, too, women work in the home to bring “economics” or good order and proper management to the household. As appears throughout the play, Katherina’s marriage to Petruchio is a good or aristocratic union, for in the areas of their partnership where one spouse has superior competence, the other willingly consents to be ruled. In this way the whole becomes greater than the sum of its parts, and having come to understand this, Katherina accepted Petruchio’s charge to introduce the Widow and Bianca to the just principles of the marital and the political partnerships. At the heart of her “lesson plan” is a combination of moral outrage and “cold turkey detoxification.”

Her “portrait” of Hortensio and Lucentio as men who “for thy maintenance” have committed their bodies “to painful labor both by sea and land, to watch the night in storms, the day in cold” is a marvelously ironic lie. Given that the Widow and Bianca are sensible or aware of what they see from their husbands, they could not help but to know that as it applies to the two men in their lives, Katherina’s encomium is simply a fraud or counterfeit. Given also that they have an exalted sense of what is due to them; they could not help but to be “moved” or angry and morally outraged at their husbands’ manifest failure to provide what is due to them. As every married man knows, marriage carries with it membership in a “Honey do” club which is presided over by his wife. He and she know too that her reproaches and her approbations exert powerful influences over him, and both also know that repeated reproaches for his failure to do a husband’s duty are most likely to habitude him to fulfill his obligations to their partnership. However, in the case of the Widow and Bianca, stroking their senses of moral outrage would not only fail to produce the desired result but would, in all likelihood, appeal to their vanity or empty pride, and to curb this, Katherina administers “cold turkey detoxification,” which is to say, the ringing and repeated lessons in humility which run throughout her speech.

In animating the indolent husbands and in humiliating the vain wives, Katherina applied the principle set forth much earlier by Petruchio: “Though little fire grows great with little wind, so extreme gusts will blow out fire and all. So I to her and so she yields to me, for I am rough and woo not like a babe.” (II, 1, 141-44) Katherina’s rough treatment was required by the fact that justice is “hard.” Justice, after all, involves giving to others what is owed to, or due to, or fitting and proper for them, and acting justly means that we must demand of ourselves both an active
attention to the welfare of others and the expenditures of our thoughts, time and resources for the sake of their welfare. Developing this “other directedness” (if I may coin an awkward expression) is particularly hard in a democratic regime or in a regime ruled by the general run of men who equate happiness with wealth or pleasure and who love the life of enjoyment. This difficulty is compounded by the democratic belief that liberty means being free to pursue any end one chances to desire powerfully leads men live in and for themselves alone or to turn inward on themselves to such an extent that they become oblivious to the welfare of others or to the permanent and aggregate interests of the communities of which they are a part.

By accepting Shakespeare’s invitation to reflect on *The Merchant of Venice* and *The Taming of the Shrew* we have been led to reflect on the following: on the futile efforts of the ancien régime to stem the flowing democratic and hence commercial tide by drying up the source of private financing for trade and commerce; and on the democratic regime’s ever-present potential for sacrificing justice and the general good on the altar of the free pursuit of private pleasure. Unlike John Locke who offered both a set of principles and a platform for dealing with these problems, in the two plays Shakespeare limited himself to providing us with an unforgettable formulation of those problems. Nor was he unmindful of the unjust and destructive efforts at “reform” which would later be made by the many different bands of theoretic politicians who had very little if any of the depth and clarity which informed his understanding of the nature of things. In *The Tempest* Shakespeare has his Gonzalo lay bare the destructive folly of those “reformers.”

```
Had I plantation of Prospero’s isle
And were the king on it, what would I do?
In the commonwealth I would by contraries
Execute all things; for no kind of traffic
Would I admit; no name of magistrate;
Letters should not be known; riches, poverty,
And use of service, none; contract, succession,
Bourn, bound of land, tith, vineyard, none;
No use of metal, corn, or wine, or oil;
No occupation; all men idle, all;
And women too, but innocent and pure;
No sovereignty—
All things in common should nature produce
Without sweat or endeavor. Treason, felony,
Sword, pike, knife, gun, or any need of engine,
Would I not have; but nature should bring forth,
Of its own kind, all foison, all abundance,
To feed my innocent people.
I would with such perfection govern,
To excel the golden age. (II, 1, 141-167)
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* All quotations are from the 1992 Folger Shakespeare Library edition of *The Taming of the Shrew*

To Bob Sasseen, my mentor and friend, whose insightful and probing questions have formed and shaped much of this presentation.
Teenager Tobacco Consumption & Perception of Quality of life in China and the U.S.

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Abstract
Experts predict that by 2030, tobacco will be the single largest cause of death worldwide, accounting for about 100 million deaths per year. More than half of these are now children and teenagers (World Bank, 1999). This research used the Family Systems Model to investigate teenagers’ individual, family and school/community environments in China and the U.S. regarding tobacco consumption and perception of Quality of Life. Data were collected in ten middle and high schools in China and 5 middle and high schools in the U.S. between May, 2007 and May, 2008. Factors promoting the undesirable habit of smoking were identified. The research results showed that gender, age of first trial of tobacco, frequency of tobacco use in the past 30 days, whether parents smoke, and family annual income are indicators of quality of life. There were gender differences among teenagers regarding tobacco consumption. Whether or not parents smoke may also impact the teenagers’ attitudes towards smoking behavior. The research was a creative attempt to combine quality of life research with tobacco consumption in teenager population. This research will contribute to the smoking prevention programs that target teenagers in Chinese and the U.S. as well as other cultures, and will promote further policy enforcement and public health improvement in the two countries and internationally.

Literature review
Approximately 1.1 billion people smoke worldwide. Within the Chinese population, over 30% are smokers. In China today, more than 350 million people are smokers (Zhang, 2010), which accounts for nearly one-third of the smokers in the world. Currently, cigarette consumption in China is as high as it was in the United States in 1950, when per capita consumption levels were reaching their peak. At that stage of the U.S. epidemic, tobacco was responsible for 12 percent of the nation’s middle aged deaths. Today, in a striking echo of the U.S. experience, tobacco is estimated to be responsible for about 12 percent of male middle-aged deaths in China. Researchers expect that within a few decades, if the smoking pattern does not change dramatically, the proportion in China will raise to about one in three, as it did in the U.S.

The serious situation in China is evidenced by the following statistics:
(1) A 2009 survey in China revealed that only 37% of smokers knew that smoking causes coronary heart disease and only 17% knew that it causes stroke. (World Health Organization) There is also a gender difference; smokers accounted for 71% of the male population and women smokers accounted for 29% of female population respectively.

(2) Many smokers started in adolescence or early adulthood when one is not fully ready to make the right decisions. A tradition in China is to use tobacco as a social instrument to start business conversations. Most new recruits and potential smokers start smoking by getting free cigarettes at social occasions. They underestimate the future costs of smoking, that is, the costs of being unable to stop smoking and harming their own health in later life. Their smoking also impacts the health of family members and the whole society.

(3) Tobacco has already been shown to be a burden on family financial life among households.

(4) Since China entered the WTO (World Trade Union) in 2001, new foreign products are available and encourage smoking international brands such as State Express 555 (which is the leading international brand in China), Benson & Hedges, Lucky Strike, Kent, Horizon, Hilton, Airdate and Commodore are available for all smokers and prospective smokers (Shanghai Daily, Jan. 7, 2002). Imported cigarettes attract a
large portion of Chinese smokers. Domestic cigarettes could lose ten to twenty percent of this market share within a few years (Hsich, Hu & Lin, 1999).

(5) Most convenience stores selling cigarettes are open to all ages with no restriction on young ages. This makes it easy for the young to access tobacco.

In addition to the impact on the health of smokers, it is well established that people who don’t smoke also suffer as the result of second-hand smoke exposure, especially children, who suffer from stilted physical development, impaired cognitive abilities, and lower academic achievement. Children who grow up exposed to smoking are also more likely to take up the habit themselves when they reach adolescence (Womach, 2003).

As shown above, there has been some research regarding differences in tobacco consumption as a factor of gender, age, education, occupation and income. In addition, there have been some investigations of the impact of government taxes on tobacco products and tobacco promotion restrictions. However, there have been not enough studies designed with regard to the perception of quality of life and smoking among adolescents.

Theorists generally agree that the quality of life concept in a systems context refers to the overall effect of all the environmental and socioeconomic conditions of a given time and/or place in terms of the effect on human well-being (Campbell, 1981). There is less agreement about which factors promote higher quality of life (Andrews & Withey, 1976). Perception of quality of life is a subjective and a comparative notion, it is contingent on the social science field of interest and the specific focus of research. Proshansky and Fabian (1996) have suggested that a better understanding of perception of quality of life will be obtained from research questions that are more specific in their focus. For example, the research question is “What kind of quality, for what kinds of people, and in what kinds of places?” From the literature, there are at least two basic approaches to the measurement of quality of life in adolescence.

(1) Health–related quality of life assess some aspect of health status, using functional scales, symptom check lists, and measures of psychological or psychiatric problems, such as gender, age, sleeping hours, behavioral symptoms, before/after treatment medical indexes or observations, and patient self-reports.

(2) Conceptual models, or theories, of quality of life. Here quality of life is viewed as an emotional response to circumstances, the match between expectation and reality, the ability to meet his or her needs and an individual cognitive approach. The so-called “needs model” posits that quality of life is at its best when all, or most, of a person’s needs are met and gets progressively worse as fewer needs are met (Hunt, 1979).

The two basic research questions are developed based on the previous studies: (1) What is the overall perception of quality of life among teenagers? (2) What is the relationship among elements of the three perspectives of personal, family, and school/community on perceptions of quality of life regarding tobacco consumption within the teenager populations?

This research used the Family Systems Theory model to combine these two topics together and lead a testimony research on quality of life and tobacco consumption among China and U.S. teenagers (see Figure 1).

Methodology

Objectives

The goal of this study is to research teenagers’ perception of Quality of Life and their attitudes toward tobacco consumption in China and the U.S. with two specific research objectives:
To find out the current tobacco consumption situation among middle/high school students and their exposure to second hand smoke at home or school environment in China and the U.S.

To determine the relationship among demographic variables associated with teenager smoking in China and the U.S., such as perception of quality of life, individual view on smoking on gender differences, adolescent saving, parents’ tobacco consumption patterns, family members’ willingness to participate in anti-tobacco community activities, and school/community attitudes with tobacco consumption.

Hypotheses

(1) Adolescent Perception of Quality of life can be investigated with regarding to tobacco consumption, it can be predicted based on family demographic information such as individual or parent tobacco consumption patterns.

(2) Environments influence teenagers' decision to smoke; family, school or community may have impact on their decision.

Methods

Various factors associated with teenager smoking are not independent and can be investigated with regard to Family System Theory (Rodney, 1995). The researchers adapted the sample questionnaires from International Anti-tobacco Research Institute and the Ohio Commission on Minority Heath, and were translated into Chinese for use. Data were collected from ten middle and high schools of urban and rural areas in Zhejiang Province and Jiangsu Province, China and five middle/high schools. The data collection started in May, 2007 and finished by May, 2008. Four hundred and seventy-two middle/high school students participated in the survey in China, and 573 middle/high school students participated in the survey in the U.S.

Sample descriptions

A. China Data

The total sample of 472 middle and high school students participated in the survey, aged from 13 to 20, with 218 females and 245 males.

In general, respondents expressed “better than average or very good” when asked how they feel about their life in general, accounting for 340 students or 72% of total responses. One hundred ten students expressed feeling “average” about their life in general (23.3%); 22 students felt “worst” about their life in general (4.7%).

When asked, “how old were you when you tried your first cigarette?” 414 students (87.7%) had never tried a cigarette. For the participants who had tried cigarettes, most students were between the ages of 11 and 15 (N=22) at the time. Thirty-six participants reported being 10 years old or younger (N = 18, 3.8%) or between the ages of 16 and 20 years old (N = 18, 3.8%) at the time of their first cigarette. Participants were further asked to report on how often they have smoked in the past 30 days. Considering that the majority of students have never smoked and some may only have tried a cigarette, 95.8% of respondents (N = 452) did not smoke at all in the past 30 days. Of the respondents who did smoke in the past 30 days, eleven (2.3%) reported that they smoked only once or twice, four (.8%) reported smoking three to nine times, and five (1.1%) reported smoking ten times or more in the past 30 days. Participants were also asked if their parents smoked; 277 (58.7%) reported both parents smoked, 176 (37.3%) reported they did not know, and those who reported that either none, father only, or mother only smoked represented 4% of the population.

Participants were asked their viewpoints on smoking. When asked, “do you think cigarettes are harmful to your health?” and “do you think second hand smoke is harmful?” over 90% of the
students (N = 434, 91.9%; N = 445, 94.3%) reported yes. When asked, “what do you think of a man smoking?” there were positive, negative and neutral responses. 3.6% of students (N = 17) reported positive descriptions of male smokers, describing it as “successful or intelligent.” 80.8% reported negative descriptions of male smokers, describing it as “stupid” (N = 177, 37.5%), “loser” (N = 123, 26.1%), and “lack of confidence” (N = 81, 17.2%). 11.7% (N = 55) described it as “macho,” a neutral descriptor. 4% (N = 19) of students did not reply. When asked, “what do you think of a woman smoking?” there were positive, negative and neutral responses. Fifteen students (3.2%) reported positive descriptions of “successful or intelligent” and 111 students (23.5%) reported “sophisticated”, a neutral descriptor. 71.2% of students reported negative descriptions of female smokers, describing it as “stupid” (N = 195, 41.3%), “loser” (N = 98, 20.8%), and “lack of confidence” (N = 43, 9.1%). 2.1% (N = 10) of students did not respond.

The assessment included questions on smoking in the media. When asked, “Are you in favor of banning tobacco?” 88.1% (N=416) reported “yes” while 11.9% (N = 56) were not in favor of banning. When asked, “During the past 30 days, how many anti-smoking media have you seen?” 76.6% of students have seen anti-smoking media; 59.7% (N = 282) reported seeing “a few” and 6.9% (N = 80) reported seeing “A lot.” 23.3% (N = 110) of students reported not seeing any anti-smoking media. When asked, “During this school year, were you taught in your classes about the dangers of smoking?” 41.3% (N = 195) reported “Yes,” while 58.5% reported “No” (N = 187, 39.6%) or “Not sure” (N = 89, 18.9%).

Students were also asked questions about their financial situations. When asked, “do you get allowance from your parents every month?” 76.9% (N = 179) replied “No” and 42.2% (N = 199) reported “100 Yuan or less.” 9.7% reported “101-300 Yuan”, and 10.2% reported “301 Yuan or more”. When asked, “Do you work outside your home to get paid?” 96.6% (N = 456) reported “No.” Students were also asked, “Do you have your own savings account?” 40.9% (N = 193) replied “No”, 6.6% (N = 31) reported “100 Yuan or less” and 14.6% of participants reported “101-1500 Yuan” and 37.9% reported “1501 Yuan or more”.

Finally students were asked about their family’s total annual income. 14.8% (N=70) students reported their family annual income to be 20,000 Yuan or below, 20.6% (N=97) reported their annual income to be between 20,001—40,000 Yuan, 23.3% (N=110) reported their annual income to be between40,001—80,000 Yuan, 16.1% (N=76) reported their annual income to be between 80,001-100,000 Yuan, and 25.2% (N=119) reported their annual income to be over 100,001 Yuan.

B. U.S. Data

The total sample of 573 middle and high school students participated in the survey, aged from 12 to 21, with 303 females and 266 males.

In general, respondents expressed “better than average or very good” when asked how they feel about their life in general, accounting for 372 students or 64.9% of total responses. One hundred sixty-one students expressed feeling “average“ about their life in general (28.1%); 28 students felt “worst“ about their life in general (4.9%).

When asked, “how old were you when you tried your first cigarette?” 411 students (71.7%) had never tried a cigarette. For the participants who had tried cigarettes, most students were between the ages of 11 and 15 (N=79) at the time. Seventy-six participants reported being 10 years old or younger (13.3%) and four reported being between the ages of 16 and 20 years old (.7%) at the time of their first cigarette. Participants were further asked to report on how often they have smoked in the past 30 days. Considering that the majority of students have never
smoked, 86.7% of respondents (N = 497) did not smoke at all in the past 30 days. Of the respondents who did smoke in the past 30 days, thirty-one (5.4%) reported that they smoked only once or twice, fourteen (2.4%) reported smoking three to nine times, and thirty (5.2%) reported smoking ten times or more in the past 30 days. Participants were also asked if their parents smoked; 202 (35.3%) reported that both parents smoked, 146 (25.5%) reported “none,” 106 (18.5%) reported “father only,” 89 (15.5%) reported “mother only,” and 28 (4.9%) reported “I don’t know.”

Participants were asked their viewpoints on smoking. When asked, “do you think cigarettes are harmful to your health?” and “do you think second hand smoke is harmful?” over 95% of the students (N = 548, 95.6%; N = 537, 93.7%) reported definitely/probably yes.” When asked, “what do you think of a man smoking?” there were positive, negative and neutral responses. 3.6% of students (N = 21) reported positive descriptions of male smokers, describing it as “successful or intelligent.” 86.8% reported negative descriptions of male smokers, describing it as “stupid” (N = 227, 39.6%), “lack of confidence” (N = 174, 30.4%), and “loser” (N = 96, 16.8%). 3.7% (N = 21) described it as “macho,” a neutral descriptor. 5.9% (N = 34) of students did not reply. When asked, “What do you think of a woman smoking?” there were positive, negative and neutral responses. Twenty-two students (3.9%) reported positive descriptions of “successful or intelligent” and sixteen students (2.8%) reported, “sophisticated”, a neutral descriptor. 86.2% of students reported negative descriptions of female smokers, describing it as “stupid” (N = 234, 40.8%), “lack of confidence” (N = 177, 30.9%) and “loser” (N = 83, 14.5%). 7.2% (N = 41) of students did not respond.

The assessment included questions on smoking in the media. When asked, “are you in favor of banning tobacco?” 67.2% (N=385) reported “yes” while 29.5% (N = 169) were not in favor of banning. When asked, “During the past 30 days, how many anti-smoking media have you seen?” 85.7% of students have seen anti-smoking media; 44.2% (N = 253) reported seeing “a lot” and 41.5% (N = 238) reported seeing “a few.” 11.3% (N = 65) of students reported not seeing any anti-smoking media. When asked, “During this school year, were you taught in your classes about the dangers of smoking?” 51.7% (N = 296) reported “Yes,” while 45.5% reported “No” (N = 153, 26.7%) or “Not sure” (N = 108, 18.8%).

Students were also asked questions about their financial situations. When asked, “do you get allowance from your parents every month?” 100% participants (N = 573) reported “Yes”. When asked, “Do you work outside your home to get paid?” 100% participants (N = 573) reported “Yes”. Students were also asked, “Do you have your own savings account?” 100% participants (N = 573) reported “Yes”. Finally students were asked about their family’s total annual income. Most students did not reply (N = 259, 45.2%). Those that did reply mostly reported their annual income to be “$20,000-below” (N = 73, 12.7%), “$20,001-$40000” (N = 60, 10.5%). “$40,001-80000” (N = 67, 11.7%), “$80,001-100,000” (N = 42, 7.3%), and “$100,001 or above” (N = 71, 12.4%).

Analyses

SPSS software was used to run a multinomial regression. The student data were analyzed with perception of life as the dependent variable and 16 independent variables. Results of the study are reported using likelihood ratio tests, and a multinomial regression of the model. The Nagelkerke value of Pseudo R-Square of the model was reported; it reflected the goodness of fit of the models to the data.

In addition, gender analyses and whether a parent smoked were also analyzed regarding teenager’s attitudes of smoking.
Findings

This data set showed an absolute majority of the teenagers felt satisfactory about their life in general for both countries (See Table 1).

The likelihood ratio tests of the multinomial regression showed that four of the independent variables were statistically significant at the level of .05 (see Table 2). These variables included: the age of first trial of tobacco, whether parents smoke, presence of any anti-smoking media during past 30 days, and whether being taught of the dangers of smoke in school classes. These are the factors that may impact the perception of quality of life among this population.

Detailed multinomial regression analyses were shown in Table 3: Parameter estimates in the model (N = 1041), The Nagelkerke value of this model is .34. The significant variables are gender, age of the first trial of tobacco, times of trial in the past 30 days, whether parents smoke, presence of any anti-smoke media in the past 30 days, and family annual income.

With quality of life being “worst” as the reference category, parameter estimates are reported using regression coefficients, significance, and odds ratio – Exp (B) as Table 2 shows.

(1) The odds of being in “average” vs. being “worst” for those females are more than 5 times higher than for those males; those who tried tobacco at 10 or younger are definitely lower than those never tried tobacco; those who tried tobacco 3-9 times in the past 30 days are also definitely lower than those never tried tobacco; those who have seen anti-smoke media (a few times) in the past 30 days are about six times higher than those have never seen any anti-smoke media; those with both parent smokers are 100% lower than those with non-smoker parents.

(2) The odds of being in “better than average or very good” vs. being “worst” for those females are about 5 times higher than for those males; those who tried tobacco 3-9 times in the past 30 days are 10 times lower than those who never tried tobacco; those who have seen anti-smoking media (a few times) in the past 30 days are about ten times higher than those have never seen any anti-smoke media; those with an annual income 20,000 or below are slight lower than those with higher income.

From the above results, we can draw the conclusion that perception of quality of life and tobacco consumption have some correlation on variables such as: gender, age of the first trial of tobacco, current use of tobacco, parental use of tobacco, influence from anti-tobacco media, and family income levels.

The results of the gender differences are shown in Table 4. Five of the variables were statistic significant: males were more likely to try tobacco at a younger age than females. During past 30 days, males were also more likely to smoke than females. Regarding a man smoking, female students were found to have more negative attitude than male students. Regarding to a woman smoking, female students were found to have a more neutral attitude than male students. Females reported higher savings mean average than male students when reporting on owning a personal saving account.

Results of the effect of parental smoking status were shown in Table 5. Teenagers with parent smokers may report slightly lower perception of quality of life. Regarding a man smoker or woman smoker, teenagers with parent non-smokers may view them in a negative way compared to teenagers with parent smokers who view them in a neutral way.

In conclusion, the findings from this research are:

(1) Perception of quality of life and tobacco consumption have correlation on gender, among the two populations of the research, males have higher possibility to have the first trial of tobacco; the correlations on gender difference can be shown more
strongly in Chinese teenager population, male smokers are more acceptable than female smokers, while this was not shown in the U.S. data.

(2) Perception of quality of life and tobacco consumption have correlation on age of the first trial of tobacco, the younger age to trial correlated with lower perception of quality of life;

(3) Perception of quality of life and tobacco consumption have correlation on current use of tobacco among teenagers, those reported current use of tobacco showed lower perception of quality of life.

(4) Perception of quality of life and tobacco consumption have correlation on parental use of tobacco and family income levels. If parents smoke, there is negative correlation with perception of quality of life. While income has positive correlation with perception of quality of life.

(5) Perception of quality of life has correlation on teenager’s individual saving/earning. It is statistically significant that higher percentage of U.S. teenagers reported having individual saving accounts (no specific amount was reported) or working to earn money in/outside of home than Chinese teenagers.

(6) Perception of quality of life has correlation on influence from anti-tobacco media, if the school/community environment has preventive influence on tobacco consumption, it will result positive influence on teenagers perception of quality of life.

(7) The findings reflected that using family system theory could predict tobacco consumption for teenagers of different populations (China and U.S.), thus for future prevention programs.

Discussion

Implication

This study attempted to link teenager tobacco consumption with their perception of life. Teenagers' individual, family and community factors were considered. The research results expanded the quality of life research and tobacco consumptions.

Over 95% of the teenagers reported not smoking, less than 5% reported smoking. The smoking rate of teenagers decreased 4-9% compared to 1997 report (Wu, 1997). Over 90% of the teenagers recognized the negative health affects of tobacco consumption and second hand smoking; this is a much higher rate compared to 2000 research. These are positive effects of anti-tobacco consumption policy or programs in the nation and community.

Since gender differences exist, and male parent smokers are the majority, there are needs to help adult male to control tobacco consumption, and needs to help teenagers to follow the correct role models. National policy and regulations need be enforced. Programs of anti-tobacco consumption could be designed to influence individual behavior, family healthier environment, and school/community non-smoking environment. Since tobacco consumption is a behavior-related issue, the prevention programs need input from individual, family, community and the whole nation (World Health Organization, 2007).

Limitations

The findings of this study were limited by the focus on primarily the population in Zhejiang Province and Jiangsu Province, China and Ohio, in the U.S. As a result, these findings do not accurately describe tobacco consumption among the whole teenager populations in China and the U.S.
Although there are limitations in this study, there are several significant conclusions that can be drawn as mentioned above, and the methodology can be applied to future research.

Future Research

Regarding future research, three perspectives are worth considering. (1) Tobacco consumption is a personal behavior resulting in addiction, it is very important to establish a preventive program for any teenagers before their first trial of tobacco. (2) Perceptions of quality of life are highly associated with environment like policy, rules and regulations. Future research can prioritize implementation of public policy, and investigate the cause of tobacco trial, thus helping to eliminate the possibility of tobacco consumption in young populations and improve quality of life for the long run. (3) The importance of the empirical demonstration of the negative impact of the use of tobacco on perception of quality of life cannot be underestimated (Zhao el. 2007). This study made some initial inroads; however, future research may require longitudinal research designs that monitor changes in the variables over time. Future research with the above-mentioned factors will build a broader and deeper understanding of the quality of life construct and behavior issues, thus contributing to research on anti-tobacco programs and the improvement of quality of life.

References


Hu Teh-Wei, Economic Analysis Of Tobacco And Options For Tobacco Control: China Case Study, 1999.


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Figure 1: Simplified Model of Family System

![Simplified Model of Family System](image)

Table 1 - Student Questionnaire and Statistic \((N=1041)\)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Response</th>
<th>China</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Valid Percent</td>
</tr>
<tr>
<td>1. How do you feel your life in general?</td>
<td>Worst</td>
<td>22</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>110</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td>Better than average</td>
<td>340</td>
<td>72.0</td>
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<tr>
<td></td>
<td>/Very good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How old are you?</td>
<td>15 or younger</td>
<td>107</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>16-17</td>
<td>213</td>
<td>45.1</td>
</tr>
<tr>
<td></td>
<td>18 or older</td>
<td>152</td>
<td>32.2</td>
</tr>
<tr>
<td>3. Gender</td>
<td>Female</td>
<td>218</td>
<td>46.2</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>254</td>
<td>53.8</td>
</tr>
</tbody>
</table>
4. How old were you when you first tried a cigarette?

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 years old or younger</td>
<td>18</td>
<td>3.8%</td>
</tr>
<tr>
<td>Between 11-15 years old</td>
<td>22</td>
<td>4.7%</td>
</tr>
<tr>
<td>Between 16-20 years old</td>
<td>18</td>
<td>3.8%</td>
</tr>
<tr>
<td>Never</td>
<td>414</td>
<td>87.7%</td>
</tr>
</tbody>
</table>

5. During past 30 days, how often do you smoke?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once or twice</td>
<td>11</td>
<td>2.3%</td>
</tr>
<tr>
<td>Three to nine times</td>
<td>4</td>
<td>.8%</td>
</tr>
<tr>
<td>Ten times or more</td>
<td>5</td>
<td>1.1%</td>
</tr>
<tr>
<td>Never</td>
<td>452</td>
<td>95.8%</td>
</tr>
</tbody>
</table>

6. Did your parents smoke?

<table>
<thead>
<tr>
<th>Parent Combination</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>29</td>
<td>1.5%</td>
</tr>
<tr>
<td>Both</td>
<td>277</td>
<td>58.7%</td>
</tr>
<tr>
<td>Father Only</td>
<td>7</td>
<td>1.5%</td>
</tr>
<tr>
<td>Mother Only</td>
<td>5</td>
<td>1.1%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>176</td>
<td>37.3%</td>
</tr>
</tbody>
</table>

7. Do you think cigarettes are harmful to your health?

<table>
<thead>
<tr>
<th>Harmfulness Level</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely/probably NOT</td>
<td>38</td>
<td>8.1%</td>
</tr>
<tr>
<td>Probably/definitely NOT</td>
<td>434</td>
<td>91.9%</td>
</tr>
</tbody>
</table>

8. Do you think Second hand smoke is harmful?

<table>
<thead>
<tr>
<th>Harmfulness Level</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely/probably NOT</td>
<td>27</td>
<td>5.7%</td>
</tr>
<tr>
<td>Probably/definitely NOT</td>
<td>445</td>
<td>94.3%</td>
</tr>
</tbody>
</table>

9. What do you think of a man smoking?

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>19</td>
<td>4.0%</td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>81</td>
<td>17.2%</td>
</tr>
<tr>
<td>Stupid</td>
<td>177</td>
<td>37.5%</td>
</tr>
<tr>
<td>Loser</td>
<td>123</td>
<td>26.1%</td>
</tr>
<tr>
<td>Successful or intelligent</td>
<td>17</td>
<td>3.6%</td>
</tr>
<tr>
<td>Macho</td>
<td>55</td>
<td>11.7%</td>
</tr>
<tr>
<td>No response</td>
<td>10</td>
<td>2.1%</td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>43</td>
<td>9.1%</td>
</tr>
<tr>
<td>Stupid</td>
<td>195</td>
<td>41.3%</td>
</tr>
<tr>
<td>Loser</td>
<td>98</td>
<td>20.8%</td>
</tr>
</tbody>
</table>

10. What do you think of a woman smoking?

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>10</td>
<td>2.1%</td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>43</td>
<td>9.1%</td>
</tr>
<tr>
<td>Stupid</td>
<td>195</td>
<td>41.3%</td>
</tr>
<tr>
<td>Loser</td>
<td>98</td>
<td>20.8%</td>
</tr>
</tbody>
</table>
11. Are you in favor of banning?  
No
Yes  
15 3.2 22 3.9
111 23.5 16 2.8
56 11.9 169 29.5
416 88.1 385 67.2

12. During past 30 days, how many anti-smoking media have you seen?  
None
A few
A lot  
110 23.3 65 11.3
282 59.7 238 41.5
80 16.9 253 44.2

13. During this school year, were you taught in your classes about the dangers of smoking?  
No
Not sure
Yes  
187 39.6 153 26.7
89 18.9 108 18.8
195 41.3 296 51.7

14. Do you get allowance from your parents every month?  
No
Yes  
179 37.9 0 0
293 62.1 573 100

15. Do you work outside home to get paid?  
No
Yes  
456 96.6 0 0
16 3.4 573 100

16. Do you have your own saving account?  
No
Yes  
193 40.9 0 0
279 59.1 573 100

17. What is your family total annual income?  
20,000 or below
20,001-40,000
40,001-80,000
80,001-100,000
100,001-above  
70 14.8 73 12.7
97 20.6 60 10.5
110 23.3 67 11.7
76 16.1 42 7.3
119 25.2 71 12.4
Table 2: Likelihood Ratio Tests (N=1041)

<table>
<thead>
<tr>
<th>Effect</th>
<th>-2 Log Likelihood of Reduced Model</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you when you first tried a cigarette?</td>
<td>998.36</td>
<td>14.22</td>
<td>6</td>
<td>*</td>
</tr>
<tr>
<td>Did your parents smoke?</td>
<td>101.88</td>
<td>18.78</td>
<td>8</td>
<td>*</td>
</tr>
<tr>
<td>During past 30 days, how many anti smoking media you have seen?</td>
<td>997.24</td>
<td>11.13</td>
<td>4</td>
<td>*</td>
</tr>
<tr>
<td>During this school year, were you taught in your classes about the dangers of smoking?</td>
<td>106.09</td>
<td>12.91</td>
<td>4</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

*: significant at the 0.05 level (2-tailed).

Table 3: Parameter Estimates in the Model (N = 1041)

<table>
<thead>
<tr>
<th>Items</th>
<th>Average</th>
<th>Better Than Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression coefficient: B</td>
<td>Sig.</td>
</tr>
<tr>
<td>Gender (F)</td>
<td>1.60</td>
<td>*</td>
</tr>
<tr>
<td>Age of first trial of tobacco (10 old or younger)</td>
<td>-18.30</td>
<td>***</td>
</tr>
<tr>
<td>Past 30 days tried tobacco (3-9 times)</td>
<td>-19.18</td>
<td>***</td>
</tr>
<tr>
<td>Past 30 days seen anti-smoke media (a few)</td>
<td>1.72</td>
<td>*</td>
</tr>
<tr>
<td>Parents smoke (Both)</td>
<td>-4.60</td>
<td>*</td>
</tr>
<tr>
<td>Family annual income 20,000 or lower</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The reference category is: worst.

***: significant at the 0.001 level (2-tailed).

**: significant at the 0.01 level (2-tailed).

*: significant at the 0.05 level (2-tailed).

Nagelkerke value of this model: .34.
Table 4: Results of Gender differences analysis (N=1041)

<table>
<thead>
<tr>
<th>Items</th>
<th>Sig. (2-tailed)</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you when you first tried a cigarette?</td>
<td>***</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>During past 30 days, how often do you smoke?</td>
<td>**</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>What do you think of a man smoking?</td>
<td>*</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>What do you think of a woman smoking?</td>
<td>**</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Do you have your own saving account?</td>
<td>*</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
</tbody>
</table>

***: significant at the 0.001 level (2-tailed).
**: significant at the 0.01 level (2-tailed).
*: significant at the 0.05 level (2-tailed).

Table 5: Results of parent smoker /nonsmoker differences analysis (N=1041)

<table>
<thead>
<tr>
<th>Items</th>
<th>Sig. (2-tailed)</th>
<th>Whether parents smoke</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do you feel your life in general?</td>
<td>*</td>
<td>No</td>
<td>-1.97</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>-1.91</td>
</tr>
<tr>
<td>What do you think of a man smoking?</td>
<td>***</td>
<td>No</td>
<td>-3.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>-3.75</td>
</tr>
<tr>
<td>What do you think of a woman smoking?</td>
<td>*</td>
<td>No</td>
<td>-2.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>-2.07</td>
</tr>
</tbody>
</table>

***: significant at the 0.001 level (2-tailed).
*: significant at the 0.05 level (2-tailed).