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TABLE OF CONTENTS

A PROFESSIONAL LEARNING COMMUNITY’S IMPACT ON ACADEMIC ACHIEVEMENT.	1
Minnie Ransom, Fremont Unified School District Ashraf Esmail, Dillard University	
HOMOSEXUALITY AND HOMOSEXUAL BEHAVIOR: A CONTROVERSIAL ISSUE.	12
Alvin Mitchell, Winston-Salem State University Mary Fries, Winston-Salem State University	
THE EFFICACY OF COLLABORATIVE TEACHING IN SPECIAL AND GENERAL EDUCATION CLASSROOM IN PUBLIC SECONDARY SCHOOLS.	27
Samuel Amankwah Agyemang, University of Phoenix Ashraf Esmail, Dillard University	
EXPLORING THE RELATIONSHIPS BETWEEN EDUCATION AND ATTITUDES ABOUT ANIMALS: A CASE STUDY OF THE HONEYBEE.	42
Tami L. Smith, Humane Society University	
COMMUNICATION BETWEEN PRIVATE AND PUBLIC LAW ENFORCEMENT POST 911 IN CALIFORNIA.	57
Theresa D. Smith, Capella University	
A METHODOLOGY TO STATISTICALLY ANALYZE CRITICAL RACE THEORY OUTCOMES FOR LEADERSHIP STUDIES: TRICHTOMY-SQUARED.	72
James E. Osler II, North Carolina Central University	
BOOK REVIEW: THE CASE OF ALTERNATIVE CERTIFICATION BY DR. CAMACIA SMITH-ROSS.	82
Reviewed by:Judith Blakely, Walden University	
CONTRIBUTORS.	83

A PROFESSIONAL LEARNING COMMUNITY'S IMPACT ON ACADEMIC ACHIEVEMENT

Minnie Ransom, Fremont Unified School District

Ashraf Esmail, Dillard University

Abstract: English language learners (ELL students) were not attaining and maintaining sufficient proficiency at public schools in Northern California, as measured by students' achievement scores on state and district assessments. The purpose of this quasi-experimental research was to determine whether there were differences in academic language arts achievement of ELL students after increasing the use of combined professional learning community (PLC) teaching/learning strategies, as opposed to the teaching/learning strategy of direct scripted instruction only. Specifically, the study was developed to explore the changes in achievement scores on the Standardized Testing and Reporting (STAR) test scores for area districts across five years of increasing PLC implementation. The independent variable was academic year (five levels) and represented increased use of PLCs. The dependent variable was the academic language arts achievement scores of the ELL students from the STAR test. The theoretical basis for this study was cooperative learning theories as they relate to PLCs. The study involved Northern California schools with ELL students in kindergarten to Grade 6 ($N = 308$). Bilingual or emergent classrooms were not included specifically, but students were speakers of other languages. A repeated-measures analysis of variance (ANOVA) was used to examine achievement on the STAR across the years before and after PLC implementation. STAR scores, the end-of-year achievement tests, were compared before and after PLC implementation. Results showed that there were significant improvements in STAR performance after PLC intervention. This study may lead to positive social change by providing practitioners in the study districts with research based findings that can be used to improve ELL instruction and teaching strategies through PLC application.

An examination of the CELDT overall performance rendered similar results as with STAR but could not be compared with STAR or use as a pre-test since the data was reported differently (See CELDT Tables 2 and 3).

INTRODUCTION

English language learners (ELL students) were not attaining and maintaining sufficient proficiency academic achievement at public schools in Northern California, as measured by students' achievement scores on state and district assessments. The district and school in particular where the researcher teaches were embarking upon teaching PLC strategies to allow students to access the current curriculum which prompted the research pertaining to PLC strategies and academic achievement seeking the answer to the research question: What is the change in achievement on scores on the STAR for students in selected counties, districts, and schools across five years of increasing PLC implementation?

Many students at the school that was the focus of this study had not been attaining and maintaining satisfactory proficiency levels. Assessment of student performance at the state and district levels indicated that students were unable to sustain growth in higher grades, where educational standards are more stringent (Fremont Unified School District [FUSD], 2010). Additionally, students were not able to satisfy the requirements of annual yearly progress (AYP), which is a federal descriptive school progress report. Supporting growth on Academic Performance Index (API) benchmarks has also been a problem with the school state descriptive progress report (FUSD, 2010).

Answering the question "What is the change in achievement on scores on the Standardized Testing and Reporting (STAR) for students in selected counties, districts, and schools across five years of

increasing PLC implementation?” The study was developed to explore whether significant changes would occur in achievement scores of ELL Students with increasing PLC implementation to meet the students’ needs of motivation, feelings of inclusion, diversity, and learning theories related to the use of a PLC rather than direct scripted instruction. STAR tests results for area districts across five years of increasing PLC implementation were used as a measure of achievement (See Table 2).

LITERATURE REVIEW

A literature review was conducted to assess the PLC strategy effective as an intervention to assist ELL students in accessing the core curriculum, including cooperative learning, appreciation of diversity, and diverse learning styles. Educators using a PLC strategy aim to build connectedness and a sense of community for all students, parents, or guardians. Benefits are broad and include the creation of discrete character education, social and emotional learning, bullying prevention, drug prevention, and violence prevention programs (Schaps et al., 2004).

Many factors affected students’ achievement. Topics for the review, and included in the study, concern the relationship with academic achievement among students. Strategies included school reform, PLC strategies (e.g., GLAD, SIEP, SIOP, Tribes), student adversities, and achievement gaps. Additionally, a review of other strategies included cooperative learning, teacher-student interaction, appreciation of diversity issues, and teacher collaboration (Hord, 2008; Lee, 2006; Schaps, Battistich, & Solomon, 2004; Theta, 2008).

Starting in the early 2000s, the reading, language arts, and writing curricula were guided by direct scripted instruction (Open Court Reading Program, 2008). Typically, scripted

learning included techniques that were textbook-based and did not permit many modifications of the curriculum. Not all students succeeded academically with direct scripted instruction. Inclusion of instructional techniques tapped into students’ understanding of learning goals by using interests and adding choices that lead to academic achievement while working and learning in a PLC. Students learned to appreciate everyone’s metacognition of learning processes while working with materials and strategies presented in a PLC (Noguera, 2010).

When Open Court was first introduced, teachers had to follow teacher’s manual guidelines exactly. Following the guidelines required teaching the program without deviations. Teachers were supposed to be teaching the same lesson at the same time, irrespective of classroom composition (Open Court Reading Program, 2008). Program managers assumed that students who did not understand lessons or concepts would eventually do so during the review periods. This was difficult for teachers because all students did not learn at the same pace and in the same way (Noguera, 2010). Students do not come with the same knowledge, background, and skills. In the 2010 study, Noguera found that teachers had difficulty adapting the pace of instruction to students’ abilities, and students were not meeting district and state academic goals based upon the instructional strategy. Everyone was expected to follow and adjust to a pacing chart, and the teachers did most of the talking.

Rigor was the result of pressure to meet the mandates of the NCLB (USDoe, 2001), which required schools to show that all children were learning, as measured by performance on standardized tests, in an attempt to eliminate achievement gaps (USDoe, 2001). Although the goals of the NCLB were commendable, it did not reflect present circumstances (Erchul et al., 2007; Sari & Doganay, 2009). Teachers were expected to educate the lowest performing children, and they were blamed

when students failed. Students often were not provided with the most basic emotional, physical, housing, nutrition, safety, and health care needs. Yet only their academic failures were of import (Brownell, Sindelar, Kiely, & Danielson, 2010; Devoe, 2007; Mandell, Davis, Bevans, & Guevara, 2008; Nichols, Glass, & Berliner, 2006).

A PLC includes cooperative strategies, diversity appreciation, hands-on activities, collaboration, inclusion, and differential instruction, as opposed to the curriculum-based scripted instruction of the same curriculum in the past. Strategies beyond the sole use of direct scripted instruction serve as interventions to assist students in accessing the core curriculum. Direct or scripted instruction is an instructional design based upon scripted lesson plans, once thought to be one method that—when properly implemented—would increase test scores. Cooperative learning refers to the interaction of students within groups to facilitate learning not only as individuals, but also as members of a group (Datar, 2006; Easton-Brooks & Brown, 2010; Echevarria et al., 2006; Gibbs, 2001; Johnson & Johnson, 2005a; Malone et al., 2006; Noguera, 2010; Project GLAD, 2008; Ventriglia & Gonzales, 2003).

Researchers' findings have indicated that students learn best with integrated programs (Chang, 2008; Gearing, 2008; Hayward, 2011; Jordan, 2009; McClure, 2009; Mixon, 2009; Mupanduki, 2009; Parnell, 2007; Warner, 2009). Furthermore, results indicate that student learning increases in smaller learning communities where there is an attempt to build personal relationships, rather than in regular programs with larger impersonal groups. Hayward (2011) found that in some cases, high levels of social problems, inattentiveness, and hyperactivity were noted in traditional public schools. Students are exposed to various types

of media, such as television, videos, computers, and video games; their attention spans are different in the twenty-first century than in previous decades. In order to motivate students and keep academic interest high, new classroom techniques were created and disseminated.

Another problem identified was lack of understanding by administrators and parents regarding the various learning styles that best meet the needs of ELL students (Datar, 2006; Easton-Brooks & Brown, 2010; Malone, West, Denton Flanagan, & Park, 2006). Researchers have argued that addressing different learning styles helps students meet required academic standards (Easton-Brooks, 2008; Malone et al., 2006). Researchers have further predicted that every year, school populations will become more diverse as students with different learning styles, opinions, and beliefs enter schools. Learning and working together in a diverse environment require that all participants respect and appreciate each other's differences. Using the PLC strategy during teaching and instruction helps to address these differences.

Professional learning communities (PLCs) are collegial groups of administrators and school staff who are united in a commitment to students' learning. Hord (2008) noted, "As an organizational arrangement, the professional learning community is seen as a powerful staff-development approach and a potent strategy for school change and improvement" (pp. 18–20). Teachers and students working in PLCs share a vision, work and learn collaboratively, visit and review other classrooms, and participate in decision making (Hord, 2008). Benefits to staff and students include a reduction in the isolation of teachers, better informed and more committed teachers, and academic gains for students. Critical issues of PLC strategies stemming from programs were the focus of the literature search. Intervention measures provided to teachers as a teaching tool when instructing the core curriculum at the study site were the focus of the

literature review (Echevarria et al., 2006; Gibbs, 2001; Project GLAD, 2008; Ventriglia & Gonzales, 2003).

Some students showed steady growth on the California STAR measure (California State Department of Education [CSDoE], 2010a). In comparison, results showed that a subgroup of ELL students did not make regular academic progress. Implementation of a PLC, paired with consistent data analysis, may be instrumental in offering alternatives that address the challenge of ensuring the academic achievement of all students. Using the PLC technique may be of particular interest to educators of ELL students. Teachers who are aware of other effective and efficient techniques provide benefits to not only their students, but also the entire educational community. Students who are not meeting standards will continue to fail, especially as standards become higher (Johnson & Johnson, 2006; Putney, 2011; Sari & Doganay, 2009).

Staff at the focus school were introduced to and trained in the use of several PLC strategies, such as Guided Language Acquisition Design (Project GLAD, 2008), Santillana Intensive English (SIEP; Ventriglia & Gonzales, 2003), Sheltered Instruction Observation Protocol (SIOP; Echevarria, Short, & Powers, 2006), and Tribes (Gibbs, 2001). Procedures were intended to assist teachers in implementing programs that offered direct scripted reading language arts curriculum in a manner that was accessible to a diverse population of students, in ways that were more meaningful. The NCLB Act did not eliminate the achievement gaps (USDoE, 2001), and schools and districts went to great lengths to find ways to raise test scores and improve academic performance (Faircloth & Hamm, 2005; Farmer et al., 2008; Leach & Williams, 2008; Wright, 2009). Teachers realized that motivation, feelings of inclusion, diversity, and learning theories related to the use of PLCs had

to be implemented before substantive learning took place (Datar, 2006; Easton-Brooks & Brown, 2010; Johnson & Johnson, 2005a; Noguera, 2010). The PLC strategy includes cooperative strategies, diversity appreciation, hands-on activities, collaboration, inclusion, and differentiated instruction, as opposed to curriculum-based, scripted instruction; therefore, the PLC strategy has a better chance of reaching all students than does direct scripted instruction, which only meets some needs of some students. The staff at the focus school obviously is headed in the right direction because in the spring of the school year 2015–2016 received a letter of Honor from the state.

METHODOLOGY

The purpose of this quasi-experimental research was to determine whether there were differences in academic language arts achievement of ELL students after increasing the use of combined professional learning community (PLC) teaching/learning strategies, as opposed to the teaching/learning strategy of direct scripted instruction only. Specifically, the study was developed to explore the changes in achievement scores on the Standardized Testing and Reporting (STAR) test scores for area districts across five years of increasing PLC implementation.

Deciding to investigate the impact of PLCs on the language arts academic achievement of schools with ELL students was to determine whether there were any academic achievement differences. The dependent variable for this study was the schools' overall achievement scores in language arts. Results of the STAR tests of ELL students at the target school were the data used to measure the dependent variable *after* the interventions or the independent variables had been used to teach the students. Overall results of preimplementation of PLC strategies was compared to overall results post implementation.

The independent variable was academic year (five levels) and represented increased use of PLCs. The dependent variable was the academic language arts achievement scores of the ELL students from the STAR test. The theoretical basis for this study was cooperative learning theories as they relate to PLCs. The study involved Northern California schools with ELL students in kindergarten to Grade 6 ($N = 308$). Bilingual or emergent classrooms were not included specifically, but students were speakers of other languages. A repeated-measures analysis of variance (ANOVA) was used to examine achievement on the STAR across the years before and after PLC implementation. STAR scores, the end-of-year achievement tests, were compared before and after PLC implementation. Results showed that there were significant improvements in STAR performance after PLC intervention. This study may lead to positive social change by providing practitioners in the study districts with research based findings that can be used to improve ELL instruction and teaching strategies through PLC application.

The intended focus was a PLC where teachers and administrators continuously seek and share learning, then act on new learning. To enhance the effectiveness of professionals so that students benefit, also referred to as *communities of continuous inquiry and improvement*, was the goal of the teachers' and administrators' actions. As an organizational arrangement, the PLC is seen as a powerful staff development approach and a potent strategy for school change and improvement (Hord, 2008). The present study promises to provide benefit to professionals at all levels of the educational system who are concerned about school improvement. Such professionals include state department personnel, intermediate service agency staff, as well as district and campus administrators. Additionally,

teacher leaders, key parents, and local school community members are likely to find the current study valuable.

The study duration included scores of students from selected Northern California counties, districts, and schools on particular assessments of ELL students that were used for this study. The 2007–2008 school year was compared to scores on the same assessments during the time that PLC strategies were implemented (2008–2009 through 2011–2012 school year).

The data obtained for use in this study were from an archival data set. Participants from the archival data set who were selected for this study were kindergarten through sixth grade all from schools serving ELL students. Students attended elementary schools in Northern California.

Students were not in bilingual or emergent classrooms and were speakers of other languages. The data consisted of achievement scores from two large, non-overlapping sets of students from several counties, districts, and schools. ELL specific tests taken at the beginning of each school year can be seen in Tables 1 and 2 for reference but could not be compared to the STAR data since it was a completely different data.

All tests should have reliability and validity and the study should be justified because no individual student level data were used or available. The primary unit of data reported was by school. All analyses collapsed across the district, and all groups of scores were delineated by school year. STAR scores from students in 308 schools in five counties were used. In addition, the STAR data were broken down by grade. By a conservative estimate (i.e. an average of 400 students per school), the archival data used in this study included thousands of students. Academic achievement measures used for the study should have been reliable because the students' scores were obtained from reliable pre-existing assessments (Yu, 2005). Data were acces-

sible and public. Statistical assumptions for conducting a one-way independent samples ANOVA are that the samples are drawn from normally distributed populations, all populations have a common variance, and all samples are independent of each other.

Tests were also reliable because they were consistent and stable in measuring what they were intended to measure (FUSD, 2010; USDoe, 2001). All schools, districts, and classes were required to use the same type of testing

environment for state testing, administering the testing within the same testing window. A repeated-measures analysis of variance (ANOVA) was used to examine achievement on the STAR across the years before and after PLC implementation. STAR scores, the end-of-year achievement tests, were compared before and after PLC implementation. Results showed that there were significant improvements in the ability of STAR performance after PLC intervention. Data were entered into IBM SPSS Statistics Version 21. Appropriate descriptive statistics were calculated.

Table 1: *Descriptive Analysis of STAR Performance*

County		2008	2009	2010	2011	2012
Alameda	M	.19	.23	.25	.28	.27
	n	107	107	107	107	107
	SD	.19	.20	.20	.20	.21
Sacramento	M	.16	.20	.42	.23	.22
	n	53	53	53	53	53
	SD	.13	.14	1.52	.14	.14
San Francisco	M	.16	.21	.20	.25	.26
	n	66	66	66	66	66
	SD	.11	.12	.08	.14	.15
San Joaquin	M	.09	.12	.13	.13	.12
	n	60	60	60	60	60
	SD	.05	.06	.06	.06	.06
Stanislaus	M	.12	.16	.18	.17	.17
	n	22	22	22	22	22
	SD	.12	.13	.14	.13	.13
Total	M	.15	.19	.21	.23	.22
	n	308	308	308	308	308
	SD	.14	.15	.15	.16	.17

Table 2. School Representation by County (N = 410)

	Frequency	Percent
Alameda	150	36.6
Contra Costa	22	5.4
Sacramento	53	12.9
San Francisco	66	16.1
San Joaquin	74	18.0
Santa Clara	23	5.6
Stanislaus	22	5.4

Table 3: CELDT Scores During Study Years

	2008	2009	2010	2011	2012
<i>M</i>	.35	.36	.37	.37	.38
<i>SD</i>	.08	.07	.07	.08	.08
Range	.72	.58	.74	.64	.70
Min	.15	.18	.04	.13	.14
Max	.87	.76	.78	.77	.84

STAR data were broken down by grade giving to group and track forward the students in the second and third grades in 2007–2008, within their districts and schools (and thus, one assumes a similar group of students), across the years of the study as they progressed through grades (Table 1). Keeping in mind the change in teaching method following the 2007–2008 school year a one-way repeated measures (RM) ANOVA with academic year as the within-subject factor was conducted. RM ANOVA is generally a more powerful analysis than a between-subjects ANOVA and is optimally powerful with this data for answering the research questions: What is the change in achievement on scores on the STAR for students in selected counties, districts, and schools across five years of increasing PLC implementation?

RESULTS

The analysis collapsed across data from county, district, and school. Participants in this analysis were the 616 students who were in the second and third grades in 2008, and who were then tracked forward. Descriptive statistics for the DV (proficiency scores), by levels of the IV (year), were as follows:

2008 ($M = .14$, $SD = .15$), 2009 ($M = .21$, $SD = .19$), 2010 ($M = .27$, $SD = .20$), and 2011 ($M = .21$, $SD = .20$). Using a Greenhouse-Geisser correction, the ANOVA was significant but had a small effect size: $F(2.32, 1426.44) = 168.05$, $p < .001$, partial eta squared = .22. A planned set of “repeated” contrasts across levels showed that 2008 was significantly different from 2009, 2009 was significantly

different from 2010, and 2010 was significantly different from 2011.

The hypothesis results were accepted. Only four years, 2007–2008, 2008–2009, 2009–2010, and 2010–2011, were included because the data ended at sixth grade, and the 2008 third graders being tracked finished sixth grade in 2010–2011. Alameda County ($n = 107$ schools) 2008 $M=0.19$, $SD=0.19$, highest level in 2011 $M=0.28$, $SD=0.20$; an increase of $M= 0 .08$, $SD=0.01$. Sacramento County ($n = 53$ schools) 2008 ($M = 0.16$, $SD = .13$) 2010 $M= .42$, $SD = 1.52$, an increase of $M=0.26$, $SD=1.39$. San Francisco County schools ($n = 66$ schools) 2008 $M = .16$, $SD = .11$, highest level in 2012 $M = .26$, $SD = .15$; an increase of $M=0.10$, $SD=0.04$. Stanislaus County ($n = 22$ schools) and San Joaquin County ($n = 60$) schools also experienced improvement in STAR performance.

ELL DIFFERENCES IN ACHIEVEMENT ON THE CELDT: PLC VS. DIRECT SCRIPTED INSTRUCTION

An examination of the CELDT overall performance rendered similar results as with STAR but could not be compared with STAR or use as a pre-test since the data was reported differently. ELL students take this test at the beginning of each year unless they have been in the country or state less than one year. Results included performance of English learners scores, fluent English proficient student's scores, student's re-designated FEP scores—which indicate that students passing CELDT and state testing are considered fluent and are no longer referred to as ELL, but are monitored for a period of time to be sure that they do not revert—and proficient and above performance percentile ratings. Results included observations from seven counties ($N = 410$). Alameda county had the most schools among all participants ($n = 150$) and comprised 37% of

the sample. San Joaquin had the second highest ($n = 74$) that accounted for 18% of the sample. Stanislaus county had the smallest representation ($n = 22$) at 5% of all schools in the sample. See Table 1 for a school summary.

Highest possible score on CELDT was one and the lowest was zero. Results of the CELDT performance in 2007–08 were $M = .35$, $SD = .08$. Scores increased in periods ending 2009 thru 2012 when compared with the 2008 ending period, by one to three percentage points. Overall, all central scores increased at around the same rates; in 2010, the lowest score reported was .04 and was the worst performance of the CELDT matrix within the five-year period.

The first period after the PLC intervention had the best performance when observing the CELDT. See Table 2 for the descriptive summary for all periods.

CELDT SCORES ACROSS STUDY YEARS

The CELDT data consisted of proficiency scores for students from 2008 through 2012. Descriptive statistics for the percentage of “English learners” by year (collapsed across county, district, and school) are as follows: 2007-‘08 ($M = .34$, $SD = .21$), 2008-‘09 ($M = .35$, $SD = .21$), 2009-‘10 ($M = .33$, $SD = .19$), 2010-‘11 ($M = .32$, $SD = .20$), and 2011-‘12 ($M = .33$, $SD = .19$). A one-way independent-samples ANOVA was conducted to enable a comparison of the effectiveness of teaching methodology across study years, as stated above. The ANOVA was significant, but had a very small effect size: $F(4, 2045) = 11.01$, $p < .001$, partial eta squared = .02. Post hoc analysis showed that 2008 significantly differed from all subsequent years.

CONCLUSION

The aim of the current study was to determine whether the PLC strategy is an effective intervention for increasing academic achievement in language arts ELL students who are not in

bilingual or emergent in programs located in Northern California. Understanding the effects of the PLC intervention provides benefits for identifying strategies to increase the academic achievement of ELL students. This study sought to compare particular assessments of ELL students who were not meeting standards for the 2007–2008 school year with those given after implementing PLC plans through the school year of 2011–2012. The goal was to understand whether the PLC strategy is an effective alternative to direct scripted instruction for ELL students who are struggling to meet academic standards in language arts.

The current study is significant because results hold the promise of promoting positive social change by showing that teachers and students should collaborate when using a PLC to integrate subject matter in a meaningful way. The study is also beneficial in determining the techniques or strategies that are most advantageous for assisting ELL students who currently do not meet NCLB-mandated standards. The focus is on intrinsic motivation as it pertains to students' learning needs.

Intrinsic motivation is necessary because intrinsically motivated students are likely to have higher academic achievement. Learners who pursue understanding rather than perform for external rewards or recognition are more apt to achieve academically (Walser, 2006; Worrell & Mello, 2007; Worrell, Roth, & Gabelko, 2007). There is much scrutiny of standardized testing to assess the value of education and educators however, there must be a clear understanding of the strategies to educate students at home and at school. In other words, teachers cannot be responsible for missed years of concepts and skills that student should possess and be required to teach them the current curriculum as well as the missed years to catch up. The faith of education and teachers should not be hinged

upon standardized testing. They cannot be responsible for students' lack of testing abilities or focus. Everyone involved with the students from the beginning needs to do their part to help them succeed. Doing so helps students to achieve proficiency on district and state-standardized achievement tests (Walser, 2006; Worrell & Mello, 2007; Worrell et al., 2007).

There was a significant change in achievement on scores on the STAR for students in selected counties, districts, and schools across the five years of increasing PLC implementation. Districts working on PLC implementation to meet the specific needs of students to achieve academic success. Districts focus on teacher collaboration, increasing PLC opportunities for teachers, and continued striving for effectiveness in finding solutions to real problems and challenges of teachers in meeting the needs of students. The data showed a significant change in achievement in scores on the STAR of participants who were in the second and third grades in 2008 and who were then tracked forward during the study years.

Recommendations for further research include conducting experimental research to obtain a more accurate picture of the effects of PLC immersion of ELL students and their effects on academic achievement. One could structure a design that includes a posttest for scores that could be implemented in late spring across California school districts to ascertain student growth, as compared to scores at the beginning of the year. These could then be compared to the other students within and outside the district. Results could be compared to the results of STAR data to determine whether growth is equal to that of regular education students.

Learning the strategies that best fit the needs of diverse students, especially ELL students and low achievers, holds potential benefit for all students. One intention of the study is to build educators' competence in the use of PLCs while maintaining

the fundamental elements of quality and integrity in teaching (Laureate Education, 2005). Finally, the study could make a difference in the educational field by providing information about the benefits of improving and influencing community and environmental change, as well as helping to better meet students' needs in the twenty-first century.

REFERENCES

- Brownell, M., Sindelar, P., Kiely, M., & Danielson, L. (2010). *Special education teacher quality and preparation: Exposing foundations, constructing a new model*. Farmington Hills, MI: Gale Group.
- California State Department of Education. (2010a). *California Standards Tests (CST), Standardized Testing and Reporting (STAR)*. Retrieved from <http://www.startest.org/>
- Chang, M. (2008). Teacher instructional practices and language minority students: A longitudinal model. *Journal of Educational Research, 102*(2), 83–98.
- Datar, A. (2006). Does delaying kindergarten entrance give children a head start? *Economics of Education Review, 25*, 43–62.
- Devoe, J. (2007). *ELL testing: A state of flux: Districts grapple with federal mandates and assessment options for English language learners* [Special report]. Farmington Hills, MI: Gale Group.
- Easton-Brooks, D., & Brown, A., (2010). The effects of age at kindergarten entry on the reading proficiency of African American and European American students. *Journal of Research in Childhood Education, 24*(2), n.p.
- Echevarria, J., Short, D., & Powers, K., (2006). School reform and standards-based education: An instructional model for English language learners. *Journal of Educational Research, 99*(4), 195–210.
- Faircloth, B. S., & Hamm, J. V., (2005). Student perceptions of school experiences and their academic success. *Journal of Youth and Adolescence, 34*, 293–309. doi: 10.1007/s10964-005-5752-7
- Farmer, T. W., Estell, D. B., Hall, C. M., Pearl, R., Van Acker, R., & Rodkin, P. C., (2008). Interpersonal competence configurations, behavior problems, and social adjustment in preadolescence. *Journal of Emotional and Behavioral Disorders, 16*, 195–212.
- Fremont Unified School District. (2015). *Homepage*. Retrieved from [http://www.fremont.k12.ca.us/Fremont Unified School District](http://www.fremont.k12.ca.us/FremontUnifiedSchoolDistrict). (2010). *Homepage*. Retrieved from <http://www.fremont.k12.ca.us/>
- Gearing, B. (2008). *School based mentoring and academic achievement: Connecting students to the instructional program through mentoring relationships*. Corpus Christi, TX: Texas A & M University.
- Gibbs, J., (2001). *Tribes: A new way of learning and being together*. Windsor, CA: Center Source.
- Hayward, A., (2011). *A comparative of social emotional and academic achievement levels of 4th and 5th grade students in accelerated and traditional programs*. Walden University: USA.
- Hord, S. M., (2008). Evolution of the professional learning community. *Journal of Staff Development, 29*(3), 10–3.
- Johnson, D. W., & Johnson, F. P., (2006). *Joining together: Group theory and group skills* (9th ed.). Boston, MA: Allyn & Bacon.
- Johnson, D. W., & Johnson, R., (2005a). New developments in social interdependence theory. *Psychology Monographs, 131*, 285–358.
- Jordan, F., (2009). *The impact of the primary years' program of the International Baccalaureate Organization on the English Language Arts State test scores of 3rd, 4th, and 5th grade students in South Carolina*. Orangeburg, SC: University of South Carolina State University.
- Lee, K., (2006). *More than a feeling: Developing the emotionally literate secondary school*. Nottingham, UK: National College for School Leadership.
- Mandell, D., Davis, J, Bevans, K, & Guevara, J., (2008). Ethnic disparities in special education labeling among children with attention-deficit/hyperactivity disorder. *Journal of Emotional and Behavioral Disorders, 16*(1), 42–51.
- Malone, L. M., West, J., Denton Flanagan, K., & Park, J. (2006). *The early reading and mathematics achievement of children who repeated kindergarten or who began school a year late*. Washington, DC: National Center for Education Statistics.
- McClure, M., (2009). *The effects of an art-based curriculum on academic achievement*. Tennessee State University. Nashville, TN. 3404705.

- Mupanduki, B., (2009). *The effectiveness of a standard-based integrated chemistry and mathematic curriculum on improving the academic achievement in chemistry for high school students in southern California*. Azusa Pacific, CA: Azusa Pacific University.
- Nichols, S. L., Glass, G., V., & Berliner, D. C., (2006). High-stakes testing and student achievement: Does accountability pressure increase student learning? *Education Policy Analysis Archives*, 14(1), 172–175.
- Noguera, P., (2010). *Closing the achievement gap: Racial inequality and the unfinished legacy of civil rights in America*. New York, NY: Motion Magazine.
- Open Court Reading Program. (2008). Columbus, OH: SRA/McGraw Hill.
- Parnell, D., (2007). *The impact of restructuring the language arts intervention program and its effect on the academic achievement of English language learners*. 3311097. Los Angeles, CA: University of Southern CA.
- Project GLAD. (2008). *What is Project G.L.A.D.?* Retrieved from [http://www. Project glad.com](http://www.Projectglad.com)
- Putney, L., (2011). Developing collective classroom efficacy: The teacher's role as community organizer. *Journal of Teacher Education*, 62(1), 93–105.
- Sari, M., & Doganay, A., (2009). Hidden curriculum on gaining the value of respect for human dignity: A qualitative study in two elementary schools in Adana. *Educational Sciences: Theory and Practice*, 9 (2), 925–940.
- Schaps, E., Battistich, V., & Solomon, D., (2004). Community in school as key to student growth: Findings from the Child Development Project. In J. Zins, R. Weissberg, M. Wang, & H. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 189– 205). New York, NY: Teachers College Press.
- Theta, Pi L., (2008). *Think the unthinkable*. 82(4). Retrieved from [www.teacherleaders.org/ node/308](http://www.teacherleaders.org/node/308)
- U.S. Department of Education. (2001). *To assure the free appropriate public education of all children with disabilities: Twenty-third annual report to Congress on the implementation of the Individuals with Disabilities Act*. Washington, DC: Author.
- Ventriglia, L., & Gonzales, L., (2003). *Santillana Intensive English Program*. Miami, FL: Santillana.
- Walser, N., (2006). “R” is for resilience: Schools turn to “asset development” to build on students’ strengths. *Harvard Education Letter*, 22(5), n.p.
- Warner, R., (2009). *A comparison of teaching models that promote academic achievement, in an inclusive secondary classroom*. Stephenville, TX: Tarleton State University.
- Worrell, F. C., & Mello, Z. R., (2007). The reliability and validity of Zimbardo time perspective inventory scores in academically talented adolescents. *Educational and Psychological Measurement*, 67(3), 487–504.
- Worrell, F. C., Roth, D. A., & Gabelko, N. H., (2007). Elementary Reading Attitude Survey (ERAS) scores in academically talented students. *Roeper Review*, 29(2), 119–124.
- Yu, C. H., (2005). *Test-retest reliability*. In K. Kempf-Leonard (Ed.), *Encyclopedia of social measurement* (Vol. 3, pp. 777–784). San Diego, CA: Academic Press.

HOMOSEXUALITY AND HOMOSEXUAL BEHAVIOR: A CONTROVERSIAL ISSUE

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Abstract: Why does a topic such as homosexuality and homosexual behavior have people cringing when they are discussed? Is it because the behavior is morally wrong? Is it because the penalties associated with this behavior discriminate against people who fit that category? Can homosexuality and homosexual behavior become the new norm? Are Americans being forced to accept homosexual behavior as a normal part of their everyday interaction? The purpose of this paper is to discuss the following: 1) Explain some history about homosexuality and homosexual behavior, 2) Discuss theories on homosexuals and homosexual behavior, 3) Define Homosexual behavior, 4) Review literature on this topic, and 5) Discuss political implications this topic can have on the upcoming presidential and state elections.

INTRODUCTION

The open display of affection between same sex couples displayed on cable television was the catalyst which prompted this research in an effort to answer the question of whether or not Americans are being forced to accept homosexuality as the new norm. As recent as October 31, 2014 same-sex marriage became legal in the state of North Carolina in the case of General Synod of the *United Church of Christ v. Cooper* which deemed the state's denial of marriage by same sex couples unconstitutional. This is controversial and striking given the state's locale in the South's Bible Belt region. The controversy however is not new. This topic has been controversial since its inception and even more controversial at the propagating for same sex marriage and special rights for those involved in homosexual behavior. Homosexual behavior has been passionately debated for hundreds or even

thousands of years because to some people it is considered a mala in se crime. A mala in se crime is considered inherently evil in all societies and at all times, resulting in a criminal penalty for the violators. Arguably, one of the more salient debates about homosexuality began during *The Early Homosexual Rights Movement* (1864–1935) (Lauritsen & Thorstad, 1974). The main issue of the debate during that era, just as today, was whether homosexuality was a choice or biologically determined. Because the common belief of most societies was that homosexuality was a choice, the behavior was criminalized, and those that were considered homosexuals were reviled. Yet, K. M. Kertbeny, who coined the term homosexuality in the 1860's felt otherwise (Cruishank, 1992 p.8, 1992). He argued that homosexuality is "inborn, and therefore it is an irrepressible, drive" (Rist, 1992; Baird & Baird, 1992 p72). But is homosexuality a choice? The debate continues to roll on into twenty-first century full steam ahead.

Nationally, homosexuality has always been a hot topic, but recently it came to the forefront on three occasions. The first was in 2012 when American president Barack Obama openly supported gay marriages as part of his political campaign. The announcement caused controversy with many Americans especially conservatives and those who are anti-homosexual. Second was in 2012 and 2014 when pro athletes Jason Collins (NBA) and Michael Sam (NFL) publicly announced that they were gay. After Jason Collins announce-

ment, American president Barak Obama called Mr. Collins and thanked him for his courage. During the NFL draft, Michael Sam kissed his male partner in the mouth on national television in celebration of getting drafted by the St. Louis Rams professional football team. The third occasion that brought homosexual behavior to the forefront of attention was in 2014 when Dan Cathy, the chief operating officer of the American Food chain Chick-fil-A, publicly announced that he opposed same sex marriages. His statement stirred up controversy, too, resulting in Chick-fil-A not funding LGBT groups any longer and LGBT groups protesting Chick-fil-A restaurants.

Internationally, homosexual behavior recently became a hot topic in Uganda, Africa when Ugandan President, Yoweri Museveni, signed into law in February, 2014 a controversial bill referred to as the “Kill the Homosexuals” law. This law punishes Ugandans for engaging in homosexual or lesbian actions. Punishments range from the convicted receiving years of imprisonment to the death penalty. The Ugandan law is in total opposition to the views of President Obama so much so that President Obama threatened to cut US aid to Uganda if President Museveni signed the bill. Nevertheless, the Ugandan President still signed the bill. It appears that in the United States, homosexual activities are more accepted than in this African Nation. Why are the two countries so divided on the issue of homosexuality? Perhaps it has to do with the basic theoretical premise from which these societies or governments form their laws.

THEORIES ON HOMOSEXUALITY & HOMOSEXUAL BEHAVIOR

There are several theories that apply to homosexual behavior including rational choice (free-will), biological determination, sexual

abuse, and learned behavior. All four theories can justify homosexuality or homosexual behavior but how important are they in deciding if a person is going to support homosexuality or homosexual behavior? Rational choice theory suggests homosexuals have the free will to choose his/her actions based on the hedonistic tendency to maximize the pleasure and to minimize the pain, and therefore, should be penalized for their actions (Albanese, 2010). Scriptures in the Bible and other books of God are written from the same theoretical perspective and suggest that homosexual behavior is a choice. Choice is the justification used in the books of God to punish those involved in homosexual behavior. As stated in the King James Bible, in the book of Leviticus chapter 20, verse 13, “If a man also lie with mankind as he lieth with a woman, both of them have committed an abomination: they shall surely be put to death; their blood shall be upon them.”

Biological determinism suggests that homosexuals are born that way and do not have a choice because of their facial features, DNA makeup, body build, or other physical characteristics. They cannot control their homosexual behavior because of their innate makeup; they were determined to be homosexuals when they were born (Lombroso, 1876; Hirschfield, 1904; Sheldon, 1949; Jacob, 1960). Therefore, they should not be punished for their behavior. The biological determinism theory is in opposition of the choice theoretical perspective and a reason why many members of society feel that homosexuality or homosexual behavior should not be a punishable offense. While this theory presents a very logical argument to be supported should a biological determinant be identified and found consistent among homosexuals, the identifying of such biological factor(s) has yet to be substantiated.

The sexual abuse theory states that such abuse of persons (both men and women) in their youth attributes to their being homosexual when they reach adulthood. This theory can also be considered learned behavior. Differential association or learning theories suggest that homosexual behavior is learned. Homosexuals do not choose, they are not determined or predestined; they simply learn this behavior from somewhere or someone who approves or are involved including parents, peers, the media, television, music, etc. Many homosexuals and homosexual supporters tend to sway toward the belief that homosexuals are born. However, the majority of society believes that homosexuals choose or learn their behavior.

Psychological explanations of homosexuality look inside the human psyche to determine causes for homosexuality. By 1973, the American Psychological Association determined to no longer classify homosexuality as a mental illness, which paved the way for choice or biological speculations. However, the oldest and arguably most influential psychological explanation of homosexuality is based on the work of Sigmund Freud in his psychoanalytic theory. His theory poses that behavior is the result of interaction between three components of personality which include the id, ego, and super ego. The id is considered to drive aggressive and sexual behavior that everyone is born with. The ego develops as a suppressor of the id in that it stops a person from thinking of self-only. The super ego is considered the conscience which regulates whether or not a person is going to think of self-only with guilt. If guilt is thought of then the person will not participate in that behavior. (Freud, 1905). In regard to homosexuality or homosexual behavior, homosexuals take the id approach; they think about themselves and behavior that gratifies self, regardless of how society views the behavior.

This is merely a snap-shot of the vast amount of theories that attempt to explain homosexuality and homosexual behavior. These theories reflect the way that Americans and Africans view homosexuality and homosexual behavior. It is very obvious that the homosexuality is more accepted in the United States than in Uganda, Africa.

In the United States, homosexuality and homosexual behavior are human and civil rights issues in which criminal sanctions are not the end result for those who are homosexuals or engage in homosexual actions. In Uganda such actions are not viewed as human nor civil rights issues. Instead in Uganda these actions are viewed as felonious crimes against society which warrant severe criminal penalties. Therefore, these assumptions can be made: 1) Americans support homosexual behavior and 2) Ugandans do not support homosexual behavior. Nevertheless, these two opposing viewpoints could be influenced by knowledge about homosexuality and homosexual behavior resulting in a change in attitudes towards homosexuality and homosexual behavior.

Homosexual Behavior/ Homosexuality Defined

Conceptually, homosexuals and homosexual behavior are defined very similarly by dictionaries such as Webster, Wikipedia, Oxford, and the like. According to Merriam Webster, homosexuals are those who have the tendency to have sexual desires to those of the same sex. Wikipedia defines homosexuality as the romantic attraction, sexual attraction or sexual behavior between members of the same sex or gender. It goes on to say "as a sexual orientation, homosexuality is "an enduring pattern of emotional, romantic, and/or sexual attractions" primarily or exclusively to people of the same sex... ." It is also referred to as "an

enduring pattern of or disposition to experience sexual, affectionate, or romantic attractions" primarily or exclusively to people of the same sex. Finally, homosexual can be defined as having sexual attraction to the same sex. Men are referred to as gay while women are referred to as lesbian. Although these definitions come from well-known dictionaries used both nationally and internationally, neither definition makes the point that individuals having sex involves penetration. Webster's definition of homosexual behavior implies that two people of the same sex can have the tendency to have desires towards each other but does not actually speak to the performing of any act. Either way it is viewed, homosexual or homosexual behavior implies a sexual relationship between at least two people of the same sex or gender. For the purpose of this paper, homosexual behavior is operationalized as defined by the Ugandan Anti Homosexuality Act of 2014 which states the following:

An Act to prohibit any form of sexual relations between persons of the same sex; prohibit the promotion or recognition of such relations and to provide for other related matters.

The offence of homosexuality.

- (1) A person commits the offence of homosexuality if—
 - (a) he penetrates the anus or mouth of another person of the same sex with his penis or any other sexual contraption;
 - (b) he or she uses any object or sexual contraption to penetrate or stimulate sexual organ of a person of the same sex;
 - (c) he or she touches another person with the intention of committing the act of homosexuality.
- (2) A person who commits an offence under this section shall

be liable, on conviction, to imprisonment for life.

Furthermore, it clearly defines "sexual act" to include—

- (a) physical sexual activity that does not necessarily culminate in intercourse and may include the touching of another's breast, vagina, penis or anus;
- (b) stimulation or penetration of a vagina or mouth or anus or any part of the body of any person, however slight by a sexual organ;
- (c) the unlawful use of any object or organ by a person on another person's sexual organ or anus or mouth;
"sexual organ" means a vagina, penis or any artificial sexual contraption;
"touching" includes touching—
 - (a) with any part of the body;
 - (b) with anything else;
 - (c) through anything;

and in particular includes touching amounting to penetration of any sexual organ, anus or mouth.

"victim" includes a person who is involved in homosexual activities against his or her will.

The purpose for using Uganda's definition of homosexuality is because U.S. definitions referring to such are vague and focus mainly on sodomy. In addition, only 13 US states have laws forbidding sodomy but most definitions tie in homosexuality acts to sodomy. For instance in North Carolina, the Anti-Gay law describes the gay lifestyle as inherently unhealthy but does not explicitly object to homosexual conduct. It however, focuses more on monogamous heterosexual marriage and

guarding against sexually transmitted diseases. Other U.S. states have similar laws including Arizona, Mississippi, South Carolina, Texas, Louisiana, and Oklahoma. However, the Supreme Court Ruling in *Lawrence vs Texas* 2003 (Case, 2003) struck down existing sodomy laws making it unconstitutional for states to enforce such sodomy laws although many states may still have some form of sodomy laws on the books.

LITERATURE REVIEW

PUBLIC ATTITUDE TOWARD HOMOSEXUALITY AND HOMOSEXUAL BEHAVIOR

There is an enormous amount of literature on homosexuality and homosexual behavior. However, for the purpose of this paper, the literature review will consist of mainly studies that focus on attitudes toward homosexual behavior. Previous studies indicate that public sentiment toward homosexual behavior is based on demographics of gender, race, age, religion, education level, and political party affiliation. Men are more likely than women to show negative sentiment toward homosexual behavior (Wiley & Forest, 1992; Herek & Glunt, 1993; Herek & Capitanio, 1995; Louderback & Whitley, 1997; Hoover & Fishbein, 1999; Wills & Crawford, 2000; and Finlay & Walther, 2003), blacks are more likely than whites to show negative sentiment toward homosexual behavior, people over thirty years old more likely to show negative sentiment toward homosexual behavior, Christian conservatives are more likely than other Christians to show negative sentiment toward homosexual behavior, those with less than a bachelor's degree are more likely to show negative sentiment toward homosexual behavior than the more educated, and conservatives and Republicans are more likely than Democrats and Liberals to show negative sentiment toward

homosexual behavior. These studies date back to the 1970s with little change in public's sentiment toward homosexual behavior.

Nyberg and Alston (1974) in their article "Analysis of Public Attitudes Toward Homosexual Behavior" make the point that attitudes toward homosexual behavior is very important and can have a lot of legal and social implications based on the attitude and perception of societal members. They make the point that organizations such as the National Organization of Women and American Psychiatric Association as well as others mobilized groups that favor the homosexual agenda are mobilized to get resolutions passed. Nyberg & Alston used the General Social Survey #9003 to conduct their study. Their data was collected in March, 1974. They analyzed a wide range of social indicators that measure the general public's attitude and values toward social issues. The units of analysis in their study consisted of a non-institutionalized population (those that are not incarcerated) throughout the continental United States who were at least 18 years old. Multistage sampling was used to select survey takers. The main question Nyberg & Alston attempted to measure was "What about relations between two adults of the same sex—do you think it is always wrong, wrong only sometimes, or not wrong at all?" They suggest that their question has a high level of reliability and will give a true measurement. The findings show that eight percent of respondents gave ambiguous answers such as don't know or something else, resulting in them being excluded from the survey; nonwhites were excluded from the findings too, yet the data shows that seventy seven percent of them show a negative attitude towards homosexual behavior. The reason given by the researchers was that the difference in attitudes towards homosexuals by race is marginal because the

subsample was too small (n=157). But strikingly, seventy two percent of whites believed that homosexual relations were always wrong. These findings mirror the previous findings of Levitt and Klassen's (1974) study. They too, found that over seventy percent of the white American population in 1970 said that homosexual relations when the partners were in love with each other were always wrong. In regards to sex, there was no difference in male and female attitudes toward homosexual relations. Each were equally as likely to reject homosexual relations. In regards to religion the two Christian groups, Catholics and Protestants, hold much more negative attitudes towards homosexual behaviors than Jews and those who do not define themselves as a religion. But again, this data can be questionable because of the small sample size of the Jewish and no religion categories.

Jenkins, Lambert, and Baker (2009) examined the Attitudes of Black and White College Students Towards Gays and Lesbians. They, too made the point that there is a push for an increase of rights, greater acceptance through the media, yet there is still a homophobic mindset of many Americans toward homosexuals resulting in homosexuals being called derogatory names and even becoming victims of hate crimes. They as well as others (Burn, 2005) report that gays and lesbians are faced with dealing with nicknames such as queers, fag, dyke when involved in verbal confrontations. They also report that 90 percent of gays and lesbians report being victimized because of their sexual orientation. They surveyed 129 students in two undergraduate psychology courses. Almost all of the respondents have heard verbal assaults against homosexuals while 66 percent of respondents had seen verbal written assaults. Although studies (D'Augelli, 1992; Herek, Cogan, & Gillis, 2002; Herek, 1984) indicated

that there was still a homophobia against the gay and lesbian community, supporters such as the National Organization of Women, National Association for the Advancement of Colored People, American Civil Liberties Union and a host of others continue to push their agenda for equal gay rights in the United States. One reason is because supporters argue that the gay right struggle is equivalent to the equal rights struggle; but is it?

CHOICE AND BIOLOGICAL DETERMINATION STUDIES

On August 28, 1963, Martin Luther King, Jr. gave his I Have a Dream Speech in Washington, D.C. in hope to get the 1964 Civil Rights Act passed. Martin Luther King, Jr. made the point that minorities were discriminated against based on the color of their skin, which is a characteristic that cannot be changed and is determined by birth. As quoted: "I have a dream that one day that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character" p. 5.

Almost thirty years later on April 25, 1993, in a march on Washington for Lesbian Gay Bi-Sexual and Transgender (LGBT) equal rights, Larry Kramer (homosexual founder of ACT-UP) referred to Dr. King's speech as one that pertained to homosexuals, too. While giving a speech on the same location after the march, he used Dr. King's speech as a platform to illustrate race as being equivalent to homosexuality. As quoted: "To paraphrase Dr. King, I may not get there with you but some day we shall enter the promised land where men and women won't be judged by their sexual desires but by the content of their character." (Homosexual March on Washington Speech). It is obvious that he substituted the term sexual desire for the term race. Again, relating to

choice, does a person at birth choose to be black, woman, or man? Also, is the analogy made by Mr. Kramer a legitimate one? There are several studies that tackle this question.

Ernulf, Innala, and Whitam's (1989) study titled "Biological Explanation, Psychological Explanation and Tolerance of Homosexuals: A Cross-National Analysis of Beliefs and Attitudes" examined whether homosexuals choose their behavior. They focused on two models. The biological model of homosexual orientation argues that homosexuals are born that way (Meyer-Bahlburg 1984, Green 1985, Hirschfeld 1904) while the psychological model of homosexual orientation argues that homosexuals choose or learn to be that way (DeCecco 1987, Freud 1905). The researchers make the point that if the biological model of homosexuality is accurate then homosexuals should be considered as a third sex and given minority status resulting in their receiving and being protected under civil rights acts. However, if the psychological model of homosexuality is accurate and homosexuals choose or learn their behavior then they should be accountable for their actions and can be cured through psychotherapy, behavior modification, or religious conversion. The data used in this study consisted of surveys collected from 745 participants from Arizona, the Philippines, Hawaii, and Sweden. Arizona participants included 138 American respondents from an undergraduate university in Phoenix. The Philippines' participants included 200 respondents from middle- and lower-class neighborhoods in Cebu City, Philippines. Hawaii participants included 235 sociology undergraduates at the University of Hawaii. Lastly, Sweden participants included 143 undergraduates studying economics and psychology at the University Goteborg in Sweden.

Using the analysis of variance (ANOVA) they tested the following hypothesis: Are homosexuals "born that way", "choose to be that way", or "learn to be that way". The researchers found that the majority of their subjects supported the idea that homosexuals "choose to be that way" or "learn to be that way". The number of subjects having this view varied from 56 percent in the Philippines to 85 percent in Hawaii. All four tested areas that endorsed the idea that homosexuals are "born that way" were more tolerant of their behavior than those who felt that homosexuals "choose to be that way" or "learn to be that way". However, the difference in homophobia and attitudes towards homosexuality is minimal except in Hawaii. Furthermore, the researchers' finding does not support the idea that there is a relationship between psychological causation and tolerance of homosexuals; these findings are in opposition to what social scientists suggest.

Tomeo, Templer, Anderson and Kotler, D. (2001) study titled "Comparative Data of Childhood and Adolescence Molestation in Heterosexual and Homosexual Persons" examined whether adult homosexuals were determined as a result of being sexually molested as children. Their hypothesis assumed that homosexuals would report more sexual abuse than heterosexuals. The data consisted of surveys from participants at a gay pride parade and college and university students in central California. The number of participants (942) included 329 males and 613 females. Of these participants 675 were college students and 267 were gay pride marchers. The two groups represented both homosexual and heterosexual participants with more than 97 percent of homosexual men and 91 percent of homosexual women who identified themselves as gay pride marchers. The researchers ran a Chi Square test to test their hypothesis. They found that of all

the participants, forty-six percent of homosexual men compared to 7 percent of heterosexual men reported same-sex molestation at an earlier age while 22 percent of lesbian women compared to one percent of heterosexual women reported same sex molestation at a young age. The test supported the hypothesis that homosexuals who were molested while young reported a higher amount of abuse than heterosexuals.

However, one must be careful when interpreting the results. Although homosexuals reported having a higher number of sexual abuse episodes than heterosexuals, the researchers make the point that it is not clear that sexual abuse is a causal factor for homosexuality. One reason is that some of the participants viewed themselves as homosexual prior to being molested. Therefore, an argument can be made that abuse does not necessarily contribute to ones being homosexual as an adult. If same sex abuse at an early age is to be considered a causal factor of homosexuality, then the number (46 percent men and 22 percent women) of homosexuals who were molested before they became adults would be much higher. Incidentally, the findings of their research mirror the results of others that child molestation may be more common in those who consider themselves homosexual compared to those who consider themselves heterosexual (Simari & Baskin, 1982; Doll *et al.*, 1992; Cameron & Cameron, 1995; and Gundlach, 1977).

So far, the studies we reviewed all point to homosexuality as being a choice. Genetics, unlike the environment, are thought to be linked to homosexuality because genetics encompasses a person's biological make-up or DNA. These technical studies examine families and twin sets to determine if their sexual orientation can be determined. There are several studies worth reviewing to answer the question: Is

Homosexuality Genetic? A study conducted by McGuire (1995) entitled "Is Homosexuality Genetic?" examined whether homosexuality is caused by genetic factors. According to McGuire, to determine whether genetics causes homosexuality, five requirements must be met. First, there should be valid and precise measures of individual differences. Second, there must be appropriate methods to ascertain biological relationships. Third, research subjects should be randomly drawn. Fourth, sample size must be appropriate. Lastly, genetic models must be appropriate to interpret the data. He examined several studies (Wheeler, 1992; Bailey and Pillard 1991; Hinde, 1959; Kinsey, Pomeroy, & Martin, 1948; Manning, 1975; Klein, DeFries, & Finkbeiner, 1973) to see if they met his criteria. All the studies failed in one way or another to meet the five criteria set by McGuire. For instance, Hinde (1959) did not measure the gender of the sexual partner and their behaviors appropriately. Kinsey, Pomeroy, & Martin (1948) also failed to meet criteria set by McGuire (1995) resulting in him raising methodological concerns that include Kinsey, et al failing to define and measure homosexuality clearly. Their defining and measuring of homosexuality contained several flaws. One flaw was that they attempted to define homosexuality as whether or not a person ever had a homosexual experience. A second flaw, is that they suggested that marriage or a heterosexual relationship does not guarantee heterosexuality. A third flaw was they assumed that in most people there was a balance between heterosexuality and homosexuality. Lastly, they argued that a person may be homosexual at one point in life but later on change. Their analysis of homosexual behavior could only be determined properly if they gave respondents face to face interviews. Because of these reasons, Kinsey et al did not meet the criteria set by McGuire. Gebhard (1972) in his book

entitled *Incidence of Overt Homosexuality in the United States and Western Europe* did not meet the measurement criteria set by McGuire (1995) in that he could not clearly measure homosexuality. In using the seven point Kinsey Scale ranging from 0 (exclusively heterosexual) to 6 (exclusively homosexual), Gebhard could not determine the exact measure of the respondent's responses because of the inability to identify a balance between homosexual and heterosexual activity. The only certainty of the scale was whether or not one considered themselves exclusively heterosexual (0) or exclusively homosexual (6). But, the respondents answers would be muddled if they scored 1 through 5 indicating both heterosexual and homosexual activity, making it difficult to rate respondents responses clearly. Therefore, according to Gebhard (1972) the amount of truthfulness given by the respondents in the surveys would be questionable. Twin and family studies were conducted to see if there was a link between homosexuality and heredity. Neither type of study showed a positive meaningful relationship (Kallman, 1952; Kenyon, 1968; Henry 1948; Dank, 1971, Heston and Shields, 1968; Pilliard, Poumadere, and Caretta, 1981). According to McGuire either the sample size was too small (Dank, 1971; Heston and Shields, 1968; Kallman, 1952, Kenyon, 1968; Pillard, Poumadere, and Caretta 1981, Eckert, Bouchard, Bohlen, & Heston, 1986) or the genes responsible for homosexual behavior could not be distinguished from among other behavioral genes (Bailey & Pillard, 1991; King & McDonald, 1992). In addition Bailey and Pilliard (1995) did not find any evidence for a genetic basis of homosexuality, resulting in those studies not meeting the standards of McGuire (1995).

THE BIBLE AND HOMOSEXUALITY

Another salient issue that garners a lot of discussion in the homosexuality debate is the role or position of the Bible. Is homosexuality discussed in the Bible and is homosexual behavior considered an abomination. The answer to these questions could be deemed critical to the homosexuality debate as well as deciding what to do with the violators regarding policy and punishment. Scholarly articles and cited biblical scriptures are examined in order to answer these questions.

In his article titled "The Bible and Homosexuality," Taylor (1995) examined both Old and New Testament Bibles to answer at least two questions: 1) does the Bible consider homosexual relations a sin and 2) are homosexual relations ever accepted as an appropriate behavior? If yes, under what terms? According to Taylor, it was quite clear that the Bible does not condone homosexual behavior under any circumstances, and the behavior is considered sin that will lead to condemnation. Taylor makes this point throughout his article explaining the verses in Genesis 19, Judges 19, Leviticus 18:22 and 20:13, Romans 1:24-31, Timothy 1:10 and Corinthians 6:9. He explained that the word homosexual is not used in the Bible but references to same sex-sexual relationships are. Afterwards, he points to specific scriptures such as Genesis 19 and Judges 19 to back up his point. As stated:

D. S. Bailey's (1955) attempt to interpret the verb "know" in Genesis 19:5 as meaning something other than sexual "knowledge" is untenable in light of verse 7, in which Lot's daughters are offered as an alternative to the men. Homosexual relations are clearly

in view here and they are almost certainly construed negatively.

He goes on to say:

Because Genesis 19 has parallels with Genesis 6:1-4, which concerns “unnatural” relations between angels and humans, it is probably important for the story that the sexual sins of Sodom also be understood as unnatural; they are, in fact, doubly so, since the sexual relations proposed are the visitors who are both men and angels.

Taylor also makes the point that homosexual relations are against natural order by referencing and paraphrasing Genesis. As stated:

The account of creation is a prime example of the predominant biblical affirmation of heterosexual marriage. In Genesis 1:27-28, KJV, humanity in the form of both male and female is created in the image of God. In Genesis 2 the Lord creates woman, God’s specially selected emotional and physical counterpart to the man, and the two—the is and the issa— become “one flesh.

He goes on to say

...Genesis 2 ends with the climatic statement that the woman is the reason why a man leaves his own father and mother to become one flesh with his wife. (Genesis 2:24).

He summarizes references to the book of Genesis directing attention to the carefully planned order of creation which is an early powerful affirmation of heterosexual relations. In light of these dictates received as truth, it is difficult to argue that homosexuality is condoned by the Bible. These affirmations in Genesis not only support heterosexual relations,

they demonstrate the Bible’s uniformly negative attitude towards same-sex sexual relations.

However, it can be argued that the bible does support homosexual relations. For example, in his book entitled “*Jonathon Loved David*”, Horner (1978) argued that the bible has a few passages of scripture that establishes an important exception to the idea that heterosexual relations alone are appropriate. The book starts off with these quotes from the bible:

And it came to pass...that the soul of Jonathan was knit with the soul of David, and Jonathan loved him as his own soul. (I Samuel 18:1, KJV)

Many waters cannot quench love, neither can the floods drown it. (Song of Solomon 8:7, KJV)

Let love be without dissimulation. (Romans 12:9, KJV)

It appears that the author is strongly inferring that these passages pertain to homosexuality but it can also be strongly argued that they pertain to heterosexuality. For instance in reference to the first passage brothers can love each other as if their souls were intertwined, and this fervent love between persons of the same gender does not have to be homosexual. In reference to the second and third passages the text appears to speak regarding love itself without any indication of sexuality.

The following quotes have a little more substance relative to the idea that the bible includes some exceptions to the belief that only heterosexual relationships are appropriate. As stated:

Thou son of the perverse rebellious woman, do not I know that thou hast chosen the son of Jesse to thine own confusion, and unto the confusion of thy mother’s nakedness? For as long as the

son of Jesse liveth upon the ground, thou shalt not be established, nor thy kingdom.” (I Samuel 20:30-31, KJV)

Horner explains that in Middle Eastern culture Saul’s verbal attack on Jonathan’s mother is equivalent to using derogatory or profane terms in Western culture used to swear when referring to a person’s mother. In other words, Saul cursed Jonathan’s mother because Jonathan was exhibiting homosexual behavior. He further explained that while many bible commentaries often relate the two references in this verse to Jonathan’s mother specifically, “the perverse rebellious woman” and “thy mother’s nakedness” as having one-in-the-same meaning, this cannot be so when one considers the meaning of the same text in the Hebrew or the Greek. The word for chosen in this text translated in the Hebrew (*bocher* or *bacher*) is translated as companion or fellow and in the Greek (*metochos*) as companion or partner. Furthermore, regarding the Greek translation Horner explained that because the word chosen in the text is followed by a genitive expression to the thing chosen being “the son of Jesse,” verse 30 of the text may be translated in the Greek to read “For, do I not know that you are an intimate companion of the son of Jesse?” This happens because “the son” in the Greek when referring to the term chosen means sharing or participation in. Clearly this exclamation by Saul per the Greek translation (*ou gar oida hoti metochos ei su to huio Iessai*) makes an explicit reference to homosexual behavior between his son Jonathan and David. (Horner, 1978, p. 32)

And as soon as the lad [who had acted as a signal] was gone, David arose out of a place toward the south, and fell on his face to the ground, and bowed himself three times; and they kissed one another, and wept one with another, until David exceeded [himself]. And

Jonathan said to David, Go in peace, forasmuch as we have sworn both of us in the name of the LORD, saying, The LORD be between me and thee, and between my seed and thy seed forever. And he arose and departed; and Jonathan went [back] into the city. (I Samuel 20:41–42, KJV)

O Jonathan, thou wast slain in thine high places. I am distressed for thee, my brother Jonathan: Very pleasant hast thou been unto me: thy love to me was wonderful, passing the love of women. (II Samuel 1:26–27, KJV).

So it can be argued that some bible scriptures make reference to homosexual relationships that were not condemned.

The Holy Quran speaks of homosexual behavior also. It is condemned by the Quran. There are at least four places in the Quran that reference homosexuality and homosexual behavior. As stated in Quran 4:16, “If two men among you are guilty of lewdness, punish them both. If they repent and amend, Leave them alone; for Allah is Oft-returning, Most Merciful.” It also states in Quran 7:80–84, “We also (sent) Lut: He said to his people: ‘Do ye commit lewdness such as no people in creation (ever) committed before you? For ye practise your lusts on men in preference to women: ye are indeed a people transgressing beyond bounds.’ And his people gave no answer but this: they said, ‘Drive them out of your city: these are indeed men who want to be clean and pure!’ But we saved him and his family, except his wife: she was of those who lagged behind. And we rained down on them a shower (of brimstone): Then see what was the end of those who indulged in sin and crime!” Other books of God according to Islam denounce homosexuality, too. As stated in Sahih Bukhari or Sunnah, “The Prophet cursed effeminate men; those men who are in the similitude (assume the

manners of women) and those women who assume the manners of men, and he said, “Turn them out of your houses. The Prophet turned out such-and-such man, and 'Umar turned out such-and-such woman (Sahih Bukhari).” Unlike the Bible, the Muslim books of God do not suggest that Islam supports homosexuality or homosexual behavior under any conditions.

It is very clear that the western world and eastern world have different perspectives on homosexuality and homosexual behavior. In many western world countries including the United States and Canada, and most of Great Britain homosexuality and homosexual behavior are accepted. In fact, in those same countries, same sex marriage is legal. One justification is that homosexual behavior has nothing to do with society, nor presents any implication of harm to society but it has everything to do with the Bible and it's condemnation of the behavior as a moral issue as opposed to a religious issue. In a society where the majority is opposed to the book of God's (the New Testament of the King James Version Bible) rules on moral issues, the members of that society who oppose those rules for governing the same moral issues win. On the other hand, in many eastern world countries, homosexuality or homosexual behavior is vehemently opposed, especially in countries such as Afghanistan, Nigeria, Qatar, Saudi Arabia, Kenya, Uganda, Somalia, and Sudan just to name a few (Bearak, M. & Darla Cameron, 2016). Most of these eastern countries penalties are harsh and the convicted can be sentenced to death for their behaviors. Regardless of what the majority of its members think or feel, when it comes to morality, their book of God wins. It can be argued that this is the biggest difference in western and eastern countries' perspective on homosexuality and homosexual behavior.

This issue has serious political implications in America for the next presidential election as well as state elections. The two major parties, Democrats and Republicans, are distinct on their views toward this topic. The Democrats push for homosexuality and homosexual behavior to become legal. The Democrats are the reason that same-sex marriage is legal. It is their belief that homosexuality and homosexual behavior are a civil rights issue. Therefore, it should not be categorized as a moral or religious issue that can result in discrimination or criminal penalties. While Republicans feel the opposite. They do not support homosexual behavior, let alone agree to honor same-sex marriage. They do not view this issue as necessarily a civil rights issue. Instead, they view it as a moral issue that should not be allowed and one that should be criminally penalized. What is important about this upcoming election is that whatever party wins the election, the president will nominate a Supreme Court justice that hopefully votes their political belief. There are two possible outcomes. If the Democratic candidate wins, same-sex marriage will probably be status quo. If the Republican candidate wins, there is a strong possibility that same sex-marriage will be challenged and possibly overturned.

REFERENCES

- Aguero, J. E., Bloch, L., & byrne, D. (1984) The relationships among beliefs, attitudes, experience, and homophobia. *Journal of Homosexuality*, 10(1-2), 95-107.
- Albanese, J. S. (2010). *Organized crime in our times*. Routledge.
- The Anti-homosexuality Act, 2014. *National Parliament of Uganda*. Accessed December 12, 2015. <http://www.refworld.org/pdfid/530c4bc64.pdf>
- Baily, D.S. (1955). *Homosexuality and the Western Christian Tradition*. London: Longmans, Green
- Bailey, J. M., & Pillard, R. C. (1991). A genetic study of male sexual orientation. *Archives of General Psychiatry*, 48(12), 1089-1096.

- Bailey, J. M., & Pillard, R. C. (1995). Genetics of human sexual orientation. *Annual Review of Sex Research*, 6(1), 126–150.
- Baird, R. & Baird, K. (1995) Homosexuality: Debating the issues. Prometheus: USA.
- Bearak, M. & Darla Cameron (2016, June 16). Here are the 10 countries where homosexuality may be punished by death. *The Washington Post*. <https://www.washingtonpost.com/news/worldviews/wp/2016/06/13/here-are-the-10-countries-where-homosexuality-may-be-punished-by-death-2/>
- Cruishank, M. (1992) *The Gay and Lesbian Liberation Movement*. Routledge: London.
- Burn, S. M., Kadlec, K., & Rexer, R. (2005). Effects of subtle heterosexism on gays, lesbians, and bisexuals. *Journal of Homosexuality*, 49(2), 23– 38.
- Cameron, P., & Cameron, K. (1995). Does incest cause homosexuality? *Psychological Reports*, 76(2), 611–621.
- Case, M. A. (2003). Of “This” and “That” in *Lawrence v Texas*. *The Supreme Court Review*, 2003, 75– 142.
- Dank, B. M. (1971). Coming out in the gay world. *Psychiatry*, 34(2), 180–197.
- D'Augelli, A. R. (1992). Lesbian and gay male undergraduates' experiences of harassment and fear on campus. *Journal of Interpersonal Violence*, 7(3), 383–395.
- DeCecco, J. P. (1987) Homosexuality's brief recovery: from sickness to health and back again. *Journal of Sex Research*, 23, 106–129.
- Doll, L. S., Joy, D., Bartholow, B. N., Harrison, J. S., Bolan, G., Douglas, J. M., & Delgado, W. (1992). Self-reported childhood and adolescent sexual abuse among adult homosexual and bisexual men. *Child Abuse & Neglect*, 16(6), 855–864.
- Eckert, E. D., Bouchard, T. J., Bohlen, J., & Heston, L. L. (1986). Homosexuality in monozygotic twins reared apart. *The British Journal of Psychiatry*, 148(4), 421–425.
- Ernulf, K. E., Innala, S. M., & Whitam, F. L. (1989). Biological explanation, psychological explanation, and tolerance of homosexuals: A cross-national analysis of beliefs and attitudes. *Psychological Reports*, 65(3), 1003–1010.
- Finlay, B., & Walther, C. S. (2003). The relation of religious affiliation, service attendance, and other factors to homophobic attitudes among university students. *Review of Religious Research*, 370–393.
- Freud, S. (1905) [Uber die Affare des Professors Beer]. *Die Zeit* (Wien), October 27. [Cited by M. Hirschfeld (1920), *Die Homosexuality des Mannes und des Weibes*. (Zweite Adage) Berlin Germany: Louis Marcus Verlagsbuchhandlung. Pp. 389–390).
- Gebhard, P.H. (1972). Incidence of overt homosexuality in the United States and Western Europe. *National Institute of Mental Health Task Force on Homosexuality: Final Report and Background Papers*, pp. 22–29.
- Green, R. (1985) Potholes on the research road to sexual identity development. *Journal of Sex Research*, 21, 96–101.
- Gundlach, D. R. H. (1977). Sexual molestation and rape reported by homosexual and heterosexual women. *Journal of Homosexuality*, 2(4), 367–384.
- Henry, G. W. (1948). *Sex variants: A study of homosexual patterns*. PB Hoeber.
- Heston, L. L., & Shields, J. (1968). Homosexuality in twins: A family study and a registry study. *Archives of General Psychiatry*, 18(2), 149–160.
- Herek, G.M. (1984) Attitudes toward lesbians and gay men: a factor-analytic study. *Journal of Homosexuality*, 10(1-2), 39–52.
- Herek, G. M., & Capitano, J. P. (1995). Black heterosexuals' attitudes toward lesbians and gay men in the United States. *Journal of Sex Research*, 32(2), 95– 105.
- Herek, G. M., Cogan, J. C., & Gillis, J. R. (2002). Victim experiences in hate crimes based on sexual orientation. *Journal of Social Issues*, 58(2), 319–339.
- Herek, G. M., & Glunt, E. K. (1993). Interpersonal contact and heterosexuals' attitudes toward gay men: Results from a national survey. *Journal of Sex Research*, 30(3), 239–244.
- Hinde, R. A. (1959). Behaviour and speciation in birds and lower vertebrates. *Biological Reviews*, 34(1), 85–127.
- Hirschfeld, M. (1904) *Berlins drittes Geschlecht*. Berlin, Germany: Verlag Hermann Seemann.

- Hoover, R., & Fishbein, H. D. (1999). The development of prejudice and sex role stereotyping in white adolescents and white young adults. *Journal of Applied Developmental Psychology*, 20(3), 431–448.
- Horner, T. (1978). Jonathan Loved David: Homosexuality in the Bible Times. Philadelphia, PA: Westminster.
- Hudson, W. W. & Ricketts, W. A. (1980) A strategy for the measurement of homophobia. *Journal of Homosexuality*, 5, 357–372.
- I Have A Dream Speech by Dr. Martin L. King, Jr., 1963. Accessed August 30, 2016. <https://www.archives.gov/press/exhibits/dream-speech.pdf>
- Jacobs, P., Harnden, D. G., Brown, W. C., Goldstein, J., Close, H. G., Macgregor, T. N., ... & Strong, J. A. (1960). Abnormalities involving the X chromosome in women. *The Lancet*, 275(7136), 1213–1216.
- Jenkins, Lambert, & Baker (2009) in their article entitled “The Attitudes of Black and White College Students toward Gays and Lesbians. *Journal of Black Studies*, 39(4): 589–613.
- Kallmann, F. J. (1952). Twin and sibship study of overt male homosexuality. *American Journal of Human Genetics*, 4(2), 136.
- Kenyon, K. R., & Maumenee, A. E. (1968). The histological and ultrastructural pathology of congenital hereditary corneal dystrophy: A case report. *Investigative Ophthalmology & Visual Science*, 7(5), 475–500.
- Kertbeny, K. M. (1998). “homosexuality” (1869). *The Columbia Anthology of Gay Literature: Readings from Western Antiquity to the Present Day*, 260.
- King, M., & McDonald, E. (1992). Homosexuals who are twins. A study of 46 probands. *The British Journal of Psychiatry*, 160(3), 407–409.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Sloan, S. (1948). Sexual behavior in the human male.
- Klein, T. W., DeFries, J. C., & Finkbeiner, C. T. (1973). Heritability and genetic correlation: standard errors of estimates and sample size. *Behavior genetics*, 3(4), 355–364.
- Louderback, L. A., & Whitley Jr, B. E. (1997). Perceived erotic value of homosexuality and sex role attitudes as mediators of sex differences in heterosexual college students' attitudes toward lesbians and gay men. *Journal of Sex Research*, 34(2), 175–182.
- Lauritsen, J., & Thorstad, D. (1974). *The early homosexual rights movement (1864-1935)* (pp. 36-37). New York: Times Change Press.
- Lombroso, Cesare L. *‘Uomo Delinquente*. Milan, Italy: Hoepli, 1876.
- Manning, J. T. (1975). Male discrimination and investment in *Asellus aquaticus* (L.) and *A. meridianus* Racovitsza (Crustacea: Isopoda). *Behaviour*, 55(1), 1–14.
- Maxfield, M. G., Babbie, E. R. (2015). Research methods for criminal justice and criminology. 7th ed. Cengage Learning: USA p. 222.
- McGuire, T. R. (1995). Is homosexuality genetic? A critical review and some suggestions. *Journal of homosexuality*, 28(1-2), 115–146.
- Meyer-Bahlburg, H. F. (1984) Psychoendocrine research on sexual orientation: current status and future option. *Progress in Brain Research*, 61, 375–398.
- Milton, G. J. (1983) Social beliefs, social background and tolerance of homosexuals. Unpublished Master’s thesis, Arizona State University, Tempe, AZ.
- Nyberg, K. L., & Alston, J. P. (1977). Analysis of public attitudes toward homosexual behavior. *Journal of Homosexuality*, 2(2), 99–108.
- Pillard, R. C., Poumadere, J., & Carretta, R. A. (1981). Is homosexuality familial? A review, some data, and a suggestion. *Archives of Sexual Behavior*, 10(5), 465–475.
- Raghavan, S. (2014). Ugandan leader signs harsh anti-gay bill despite warning from Obama administration. *Washington Post*.
- Rist, D. Y. (1992). Are homosexuals born that way?. *The Nation*, 19, 424–429.
- Sheldon, W. H. (1949). Varieties of delinquent youth: an introduction to constitutional psychiatry.
- Simari, C. G., & Baskin, D. (1982). Incestuous experiences within homosexual populations: A preliminary study. *Archives of Sexual Behavior*, 11(4), 329–344.
- Taylor, J. Glen. “The Bible and Homosexuality.” Themelios 21.9 (1995).
- Tomeo, M. E., Templer, D. L., Anderson, S., & Kotler, D. (2001). Comparative data of childhood adolescence molestation in heterosexual and homosexual persons. *Archives of Sexual Behavior*, 30, 535–541.

- Wheeler, D. L. (1992). Studies Linking Homosexuality to Genes Draw Criticism from Researchers. *Chronicle of Higher Education*, 38(22), A7–A9.
- Whitham, F. L., & Mathy, R. M. (1986) *Male homosexuality in four societies: Brazil, Guatemala, the Philippines, and the United States*. New York: Praeger.
- Wikipedia.(2016, June 16) *Homosexuality*. <https://www.en.wikipedia.org/wiki/Homosexuality>.
- Wills, G., & Crawford, R. (1999). Attitudes toward homosexuality in Shreveport-Bossier city, Louisiana. *Journal of Homosexuality*, 38(3), 97–116.
- Wylie, L., & Forest, J. (1992). Religious fundamentalism, right-wing authoritarianism and prejudice. *Psychological reports*, 71(3 suppl), 1291–1298.

THE EFFICACY OF COLLABORATIVE TEACHING IN SPECIAL AND GENERAL EDUCATION CLASSROOMS IN PUBLIC SECONDARY SCHOOLS

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Abstract: This article presents some of the findings of collaborative teaching models that effect changes in teaching and student learning in public secondary schools across the United States of America. The context of the research sought to gain a deeper understanding of how changes made to the paper influenced their teaching and student learning. A collaborative teaching relationship was particularly important for the teacher educators to share concerns and present ideas for innovative practice in a safe classroom. The relationship, built over a period of the study, encouraged a mutual desire to create a teaching and learning environment that valued the student voice and was engaging for teacher educators and students. This article highlights five factors that are critical to restructuring schools. The authors mentioned that oftentimes new leaders constantly want to impose models from outside the school. However, under the teacher driven reform, a leader can tap into the current resources and knowledge available from within the public secondary schools. When teachers and administrators build strong relationships they can work collaboratively. In addition, when teachers are receiving the support and have professional development and an open line of communication. The major emerging themes from the study included: content knowledge, mutual learning benefits teachers, mutual learning benefits students, administrative support, and teacher development support. The results of the study included insights for teachers who used collaborative teaching models. The study results might contribute to positive social change by providing knowledge about the efficacy of collaborative teaching in regular and special education in public secondary schools.

INTRODUCTION

The No Child Left Behind Act, 2001 mandated schools to take responsibility for all students learning to meet the proficiency level through standardized assessments (Finley, Wayne, & Waymire,

2012). The 2004 Individuals with Disabilities Education Act (IDEA) required educators to place students identified with disabilities in general classroom settings. As a result, recent years had seen more consideration of the use of collaborative teaching for all students in general education settings (Haugwitz & Sandmann, 2010).

Combining collaborative teaching with students learning is important for special and general education students to become successful (Friend, Cooke, Hurley-Chamberlain, & Shamberger, 2010). Within a collaborative teaching setting, the special education teacher identifies the unique learning style of special education students and breakdown the difficult part of the lesson for their understanding (Georgia Department of Education, 2013). A collaborative teaching method can promote effective classroom behavior, yet educators often are unable to address student learning deficits effectively, because they lack specific effective collaborative teaching methods (Compton-Lilly, 2010).

The general problem is that when collaborative teaching is attempted with special and regular educators, the practice is very often not effectively implemented and as a result, student learning is negatively affected (Christensen, Johnson, & Turner, 2010). The specific problem is that some special and regular education teachers insufficiently understand the application of a collaborative teaching style when working together (Laborda, 2013). Collaborative teaching for special and regular education teachers and learners is a challenge when a teaching team engages in power,

roles, and making identity claims in front of students (Preves & Stephenson, 2009).

Gearhart and Osmundson's (2012) research findings also stated that collaborative inquiry is among the most promising strategies for strengthening teaching and learning, but it is most difficult to implement without providing the necessary leadership and support. Laborda's (2013) previous research on collaborative teaching concluded that teachers find collaborative teaching challenging because it requires not only high levels of knowledge, but high level of design and planning skills. A qualitative descriptive research method was needed because the data collection of the current study were derived from direct lived experiences of current special education and regular education teachers regarding collaborative teaching methods.

EFFICACY OF COLLABORATIVE TEACHING

Collaborative teaching is a means of instruction in which two or more teachers instruct special and general education students together in a single classroom (Compton-Lilly, 2010). Collaborative teaching affords the special and general teachers the opportunity to share their expertise on the content and knowledge of the general education curriculum for the benefit of every learner in the structured setting (Tinto, 2009). The special educator modifies the material for students with disabilities (Zigmond & Kathleen, 2012). An effective collaborative teaching style in general education classroom is of "paramount importance when assisting students with disabilities" (Villa & Thousand, 2004, p.19).

A collaborative teaching approach helps educators to use visual aids, illustrations, manipulative, and modeling to direct student thinking (Frey & Fisher, 2010). Collaborative

teaching methods allow students to identify, define, and explore problems from different perspectives (Pandya, 2011). Within classroom setting, collaborative teaching benefits students in developing collaboration skills (Hakverdi-Can & Sonmez, 2012). Students develop self-directed and group learning skills in collaborative teaching style (Reznitskaya, 2012). Collaborative teaching enables students use previous knowledge to develop new skills (Pandya, 2011).

In the collaborative teaching model, verbal and non-verbal communication between the special and regular education teachers is important to maintain student engagement in class activities (Friend, Hurley-Chamberlain, & Shamberger, 2010). Effective collaborative teaching methods lead to improvement in student learning (Efthymios, Ioanna, & Iosif, 2009). According to Meadan and Monda-Amaya (2008), collaborative teaching style will promote the quality of instruction and supports students learning in classrooms. Collaborative teaching style becomes effective when special and regular students access the general education curriculum and receives collaborative help from both special and regular education teachers working to provide an appropriate education (Villa & Thousand, 2004, p. 21). A collaborative teaching style enhances classroom learning opportunity for all students (Berry, 2010). Collaborative model of teaching supports all students and also provides a sense of belonging (Reznitskaya, 2012).

"Collaborative learning creates conditions for all students to gain academic and social skills that support academic achievement for all students" (Christensen et al., 2010, p. 14). Unfortunately the literature shows that effective collaborative teaching often does not occur between special and regular education teachers (Scruggs, Mastropieri, & McDuffie, 2007). Vaughn, Bos, & Schumm (2007) stated that ineffective collaborative teaching happens due to class size and scheduling conflicts.

Although many researchers had written on the value of collaboration, a gap between theory and practice is not yet addressed. The contributory factors of ineffective collaborative teaching include teachers' commitment, academic orientation, efficacy, and lack of support from school administrators (Pandya, 2011). In practice, not all schools execute meaningful collaborative teaching and not all teachers are prepared to be full participants in a collaborative environment (Arthaud, 2007).

Teachers are challenged to meet national accountability standards, which make it difficult for both special and regular education teaching to effectively use a collaborative teaching style (Berry, 2010). Smaller-scale studies conducted on collaborative teaching up to date had yielded mixed results (Finley & Waymire, 2011). Currently, school administrators are faced with challenges of implementing collaborative teaching methods in their schools (Haugwitz & Sandmann, 2010).

SIGNIFICANCE OF THE PROBLEM

Poor collaborative teaching methods had become a serious concern in schools across the nation (Hamill & Sinclair, 2010), making this study topic important and relevant. Lack of access to a variety of teaching styles affected students learning and contributed to low academic achievement (Christensen et al., 2010; Zhou et al., 2011). Haugwitz & Sandmann (2010) suggested that collaborative teaching is the best way to improve student achievement. The unemployment rate for students identified with disabilities was as much as 70 percent higher than general education students who have completed high school (Samuels, 2014).

This study might result in teachers reevaluating and restructuring collaborative teaching strategies to improve academic success in public secondary schools. The barriers for efficacy and

effectiveness of use in collaborative teaching practices included the different ways each student learns, cultural conflict between some students, and the typical learning experience in school (Scruggs, Mastropieri, & McDuffie, 2007, p.26). In addition, another underlying barrier was a lack of resources, ineffective collaborative strategies, and lack of shared responsibility between special and general education teachers (Scruggs, Mastropieri, & McDuffie, 2007).

HISTORICAL OVERVIEW OF COLLABORATIVE TEACHING METHOD

In 1975, Congress passed the Education for All Handicapped Children Act, or PL 94–142. Since the passage of PL 94–142, educators had been required to collaborate with each other, related professionals, and parents to provide appropriate special education services. The legislation required states to provide a Free and Appropriate Public Education (FAPE) to all children identified with disabilities. Educators and parents meet to write Individualized Education Programs (IEPs) as a team and decide educational needs for students identified with disabilities to receive appropriate services (Spencer, 2005).

This collaborative approach for designing and implementing services had been the foundation for special and regular educators who used collaborative teaching methods (Spencer, 2005). In 1990, PL–142 was amended and became known as the Individuals with Disabilities Education Act (IDEA). IDEA and No Child Left Behind (NCLB) Act of 2001 encouraged collaboration that improved both instruction and student performance (Villa, Thousand, & Nevin, 2004). Students with special needs had the opportunity to interact with the gifted students in the general education classroom (Villa, Thousand, & Nevin, 2004). Collaborative teaching helped special education students to socialize with students in the general education classroom (Villa, Thousand, & Nevin, 2004). Collaborative teaching might be a necessary condition for students to

achieve academic excellence (Usova, 2001; Graziano & Navarrete, 2012).

Previous collaborative teaching research concluded that the exclusion of students with special needs and special education teachers from the regular education milieu promoted social isolation for both the special and general education students (Tomkins & Eatough, 2012). Laborda (2013) indicated that ineffective collaborative teaching had perpetuated a deficit in teachers' collaborative competencies. Although many researchers had written on the value of collaboration, a gap between theory and practice was not yet addressed. The contributory factors of ineffective collaborative teaching included teachers' commitment, academic orientation, efficacy, and lack of support from school administrators (Pandya, 2011).

THE USE COLLABORATIVE TEACHING MODELS

The research into the efficacy of collaborative teaching is limited because of a number of factors, including (a) special and general education teachers are unwilling to effectively collaborate with each other, (b) lack of administrative support, and (c) teachers' lack of using effective strategies in collaborative teaching situation (Scruggs, Mastropieri, & McDuffie, 2007). Reznitskaya (2012) indicated that contemporary research and theory support the collaborative teaching approach, while the research shows that collaborative teaching is the most effective for coaching students with disabilities, in actual practice, the collaborative teaching strategy often fails to produce the desired outcomes.

COLLABORATIVE TEACHING MODELS

The most crucial factors for successful inclusion were academic success and good social skills levels of the special needs students (Spencer, 2005). Other important factors included

“number of students in the class, attitude and experience of the classroom teacher and the special education support services” (Dettmer, Thurston & Dyck, 2005, p.105). Cook and Friend (2003) devised a model of collaborative teaching that was widely accepted and widely used. Cook and Friend's collaborative models were as follows: (a) One teaches and one assists, (b) station teaching, (c) parallel teaching, (d) alternative teaching, and (e) team teaching.

Collaborative teaching supported different styles of learning opportunities in the regular classroom and was beneficial to students with special needs (Salovoara, 2005). Collaborative teaching models three elements. First, the teacher must establish rapport. The regular and the special education teachers needed to examine each other's areas of expertise. Both teachers needed to build cordial relationship in the areas of scheduling, grading, communication between home and school, expected classroom behaviors, and consequences of not following rules and procedures (Salovoara, 2005).

Second, collaborative teaching models included Individualized Education Plans (IEPs). The special and regular educators provided their inputs in writing measurable goals for special education students for both to effectively execute the plans (Efthymios et al., 2009). Third, teachers were team players. Special and regular education teachers set an acceptable boundary and maintained consistency in dealing with parents.

Collaborative teaching provided an opportunity for special and regular to set in and introduced new ideas during instruction time (Drame, 2010). For example, when a teacher introduced a new concept and it did not work, one teacher could step in with another technique. Collaborative teaching was an important technique for special and regular education teachers to address students' academic deficits (Haugwitz & Sandmann, 2010).

In collaborative teaching, special and regular teachers shared the classroom instruction, grading of student assignments, class management, and lesson planning (Guardino & Fullerton, 2010, p.21). A collaborative teaching depended how a teacher applied knowledge to enhance student learning and promoted higher achievement levels (Quinn & Eckerson, 2010). Collaborative teaching style allowed teachers to create small groups discussions (Chiu, 2004).

Collaborative teaching model might improve student learning and academic achievements when two or more teachers shared ideas together (Ross & Frey, 2009).

Having two teachers in the classroom was helpful in terms of collecting data on student performance and areas of educational needs of each student (Friend & Pope, 2005). In collaborative teaching regular and special education teachers developed intervention strategies such as class activities like puzzles, games, and drawing so that students could focus on academics (Martinez, 2010, p.51).

Collaborative teaching promoted group work and involved various teacher tasks such as preparing the students for group work by asking analytical questions, supporting students' collaborative efforts, asking students for critical analyses of the subject, and assessing group and individual performance (Vaca, Lapp, & Fisher, 2011). Collaborative teaching promoted student learning and improved student achievement (Wilson, 2012). Concern regarding the classroom teaching and learning was not without warrant, given the disproportionate number of disadvantaged minorities in secondary schools (Wilson, 2012). Collaborative teaching helped teachers share strategies and examined their effects on classroom learning and assessment (Haugwitz & Sandman, 2010; Stein & Mankowski, 2004).

ADVANTAGES AND DISADVANTAGES OF PREVIOUS USE OF COLLABORATIVE MODELS

In the *one teaches and one assists*, only one teacher leads in instructing the whole class and the partner went round to make sure each student was fully engaged (Gore, 2010). Some advantages of this approach were that students received immediate individual help. Students were kept on task because of the proximity of the teachers' (Graziano & Navarrete, 2012).

During the instructional time, the supporting teacher could observe behavior not seen by the teacher directing the lesson (Haugwitz & Sandmann, 2010). Some disadvantages of this approach were that some students often related to one person as the teacher and the other as a teacher's assistant. Students view the supporting teacher as distracting because they only want to focus on the teacher giving the instruction (Gore, 2010).

The *station teaching* approach places students into groups (Villa, 2004). Each group gathered in a specific area or station to discuss and performed the activities together (Graziano & Navarrete, 2012). All groups had the opportunity to rotate to other stations. The groups presented their reports from each station to the entire class (Rowse et al., 2012).

One advantage of the station teaching approach was that each teacher had a clear teaching responsibility. Students collaborated and benefit by working in small groups. Minimal noise existed because students were actively engaged in the group activities (Haugwitz & Sandmann, 2010). One disadvantage of the station teaching approach included the possibility that few students could distract others (Haugwitz & Sandmann, 2010). The "station teaching" approach required considerable preplanning.

In *parallel collaborative teaching*, “students in different groups in the same classroom work simultaneously with different teachers to do different class activities” (Villa, 2004. p.23). One advantage of parallel collaborative teaching model was that teachers could preplan to provide better teaching points. The parallel collaborative model allowed both teachers and students to work with smaller groups (Diana, 2014).

Splitting the class allowed students in separate groups for differentiation instruction (Finley & Waymire, 2012). A disadvantage of parallel collaborative approach included the necessity that both teachers were competent in the content area for all students (Haugwitz & Sandmann, 2010). In addition, the pace of the lesson remained the same for all students so accommodating the struggling students’ became more difficult (Austin, 2011).

In *alternative teaching method*, one teacher managed most of the class while the other teacher engaged a small group of students either inside or outside of the classroom (Finley & Waymire, 2012). For example, a teacher could take an individual student out to work on a missed assignment. One advantage of alternative teaching approach was a teacher can work with individual students to meet their personal needs (Giorgi, 2010, p.13).

In “alternative teaching”, both teachers could learn from each other through informal observation of the other modeling best teaching practices. One disadvantage of this approach could be that some groups might have an advantage over others because of composition of the group (Berry, 2010). The students also might view the teacher working with the larger group as the only one in control.

In the use of *team teaching*, both teachers were responsible for planning and sharing of the

instruction of all students (Laborda, 2013). Both teachers engaged students in conversation and encouraged discussion. Both teachers dealt with classroom management and lesson implementation. There were several advantages of the team teaching approach. Each teacher had an active role and students viewed both teachers as having equal authority (Austin, 2011 et al.).

In addition, collaborative teachers were actively involved in classroom organization and management. Another important aspect of maintaining harmony in team teaching was the respect the teachers had for each other (Austin, 2011). One disadvantage of the team teaching approach was preplanning took a considerable amount of time.

In any of these approaches, each teacher’s role needed to be clearly defined to ensure shared responsibility (Laborda, 2013). “A collaborative teaching approach supported teachers’ professional development” (Murawski & Dieker, 2008, p.7). It was determined that special education teachers required additional information regarding the general education program and more time for planning (Mastropieri & Scruggs, 2007), but had more contact with students with special needs (Murawski & Dieker, 2008).

INSUFFICIENT KNOWLEDGE REGARDING IMPLEMENTATION OF COLLABORATIVE TEACHING MODELS

The reason for most school failure to implement collaborative teaching was insufficient knowledge about the collaborative teaching model (Cook & Friend, 2003). The most important problem pertaining to collaborative teaching was the school administration’s failure to provide adequate special education support services such as resource room and special education counseling (Austin, 2011). Murawski & Dieker (2008) stated “teachers’ complained about being dependent on their partners” (p.16).

During the implementation of the lesson, teachers had been known to make changes to the content of the lessons that had been preplanned with the other teacher, and acted against the agreed roles and responsibilities (Laborda, 2013). One of the problems experienced in the collaborative teaching process was ineffective communication between the teachers (Cook & Friend, 2003). According to Murawski and Dieker (2008), it was important for teachers to share their expectations to avoid conflicts that could arise during the teaching process.

Despite the importance of collaborative teaching, few studies had been conducted on collaborative teaching in regular and special education classrooms (Austin, 2011).

DEBATE ON COLLABORATIVE TEACHING METHOD

Experts described four common types of collaborative teaching taking place in today's classrooms: supportive, parallel, complementary, and team teaching (Villa et al., 2004). Each of the four types had distinct advantages and disadvantages. In supportive collaborative teaching, either the special or general educator teaches while the other circulated in the room to help the struggles students (Villa et al., 2004).

In supportive collaborative teaching model, instructors observed students by moving around in the room and redirecting students who were not on task (Rowell et al., 2012). The advantage of supportive collaborative teaching was that it worked well for students with and without disabilities, but insufficient time for teacher planning made collaborative teaching more difficult between special and regular education teachers ((Austin, 2011). All of the students in the classroom learned the same curriculum from the primary instructor and there was no differentiation or modifications for

students who struggled with the lesson (Compton-Lilly, 2010).

In the parallel collaborative teaching, different groups of students in the same classroom worked simultaneously with different teachers (Villa et al., 2004). The advantage of parallel collaborative teaching was that students benefit from interacting with one another in a small group, but the disadvantage of this approach was that all students might not participate in each center (Villa, 2004). For example, in parallel collaborative teaching two groups of students had one teacher giving instruction in different ways the same reading lesson to two different groups (Berry, 2010).

Some students might read aloud, while others answered comprehension questions after reading a selection (Villa, 2004). Complementary collaborative teaching required more time for planning to allow each teacher to supplement the instruction (Finley & Waymire, 2012). The primary difficulty with complementary collaborative teaching was that teachers needed to share planning period, extended lunch, and found means of getting together to provide a quality lesson (Haugwitz & Sandmann, 2010). The administrative support in allowing special and regular educators more flexible planning time could make a significant difference in the success of complementary collaborative teaching (Haugwitz & Sandmann, 2010).

Team collaborative teaching was effective once the special and regular education teachers had a good working relationship to teach only using their areas of strengths (Finley & Waymire, 2012). One disadvantage was that only highly qualified special education teachers could work with the general education partners in team collaborative setting for meeting state and federal regulations (Haugwitz & Sandmann, 2010). Under NCLB, a highly qualified teacher was defined as having at least a bachelor's degree from a four-year college and demonstrated competence in teaching in each core subject area. In team collaborative teaching both special and regular

education teachers played a leading role in instruction delivery to benefit all learners (Giorgi, 2010).

Special and regular education teachers shared ideas, planned lessons, and specific goals and objectives as well as the physical set up of the classroom (Finley & Waymire, 2012). All teachers were responsible for their students, so instructors modified and provided differentiation instruction for the class (Austin, 2011). The development of healthy relationships between the special as regular education teachers contributed to effective classroom management (Laborda, 2013). Teachers developed tangible rewards and made contracts with students to enhance classroom management (Berry, 2010). In a collaborative teaching situation special and regular education teachers used oral and written assessments to identify each student's weaknesses and strengths (Zhou, Jinyoung, & Kerekes, 2011).

Collaborative teaching allowed teachers to set up class expectations and provided instructions to different groups of students (Finley & Waymire, (2012). Special educators who were accustomed to having their own classrooms and personal space made adjustments when they became part of a collaborative teaching (Austin, 2011).

A teacher who made an informed decision to collaborate with others was more likely to work collaboratively than one who was simply placed in the situation (Pugach & Winn, 2011). Regular education teachers needed to learn how to share their space and perceived power (Tinto, 2009). Ineffective communication among administrators and teachers could lead to a situation in which a special education teacher was treated more like a paraprofessional (Zhou, Jinyoung, & Kerekes, 2011).

In contract, collaborative teaching methods were ineffective if one only teacher was the main instructor and the other served as an assistant during instruction time (Berry, 2010). To reduce miscommunication and to keep the spirit of collaborative teaching alive, shared goals could help teachers focused their efforts and developed a plan that might be cleared and mutually agreed upon (Zhou, Jinyoung, & Kerekes, 2011). No two people agreed on every issue, but having similar teaching philosophies made the collaborative teaching more effective (Austin, 2011). The literature on the topic of collaborative teaching was limited, but the No Child Left Behind Act of 2001 required highly qualified and certified teachers to be present for all core subjects' instruction (Villa et al., 2004).

EFFECTIVENESS OF COLLABORATIVE TEACHING

In collaborative teaching situations teachers modeled new content, allowed time for student collaboration, and provided the opportunity for independent work (Haugwitz & Sandmann, 2010). Effective collaborative teaching methods led to improvement in student learning (Efthymios et al., 2009). Collaborative teaching allowed teachers to give immediate feedback, and raised the quality of class discussion (Finley & Waymire, 2012). Students and teachers working together in a single classroom promoted leadership and cooperative learning (Finley & Waymire, 2012).

Collaborative teaching allowed teachers to ask students questions and received feedback to assist them in generating new ideas for effective instructional planning (Austin, 2011). A continuing dialogue with students and instructors was an integral part of collaborative teaching, thereby promoting students' intellectual growth (Haugwitz, & Sandmann, 2010). Collaborative teaching in classrooms afforded students a chance to have access to instructors in the classroom and asked

questions for clarification and student achieved academic success (Berry, 2010).

Regular and special education teachers collaborated on instructional planning, lesson delivery, and assessments (Ross & Frey, 2009). Special and regular education students in a regular education classroom created a heterogeneous classroom community (Finley & Waymire, 2012). Special and regular education teachers worked with all students as both teachers were responsible for the students' success (Berry, 2010). The regular and special education teachers met and determined their classroom roles for uninterrupted lesson (Ross & Frey, 2009). In an effective classroom, the needs of all students were addressed by special and regular education teachers by using the general curriculum as a basis for planning (Haugwitz, & Sandmann, 2010).

In collaborative teaching, teachers used sound instructional practices to gather information on student learning (Berry, 2010). Tinto (2009) suggested that classroom management occurred when classroom organization and intervention in disciplinary matters set the tone to create an effective classroom. In collaborative teaching teachers sought to better understand the classroom setting, and examined the effectiveness of responses to student learning (Tinto, 2009).

Researchers and practitioners should study effective practices in separate special and regular education classrooms and evaluate the effectiveness of these practices compared to those in collaborative settings (Austin, 2011). According to Tinto (2009) there was limited study available on collaborative teaching methods. The purpose of this qualitative descriptive phenomenological study was to explore the lived experiences of current special and regular education teachers' regarding collaborative teaching methods. The results of

the current study might benefit secondary schools teachers and administrators by providing information about best practices of collaborative teaching.

RESEARCH METHOD

In quantitative designs, the focus was on interpreting numerical data resulting from a statistical analysis of identified variables (Giorgi, 2010). A quantitative method would not yield rich, detailed descriptions of the phenomenon in this study. Tinto (2009) described qualitative research as having an open-ended purpose with the general goal of seeking to discover a central phenomenon from the perspective of the participants. Researchers posed broad questions in an attempt to glean answers from the participants (Austin, 2011). A quantitative study limited the depth of participants' responses and ability to capture participants' experiences (Giorgi, 2010), and would not be appropriate for this study.

Qualitative study involved exploring and understanding rather than describing or explaining a central phenomenon (Giorgi, 2010). Qualitative studies could provide information from a particular point of view. Austin (2011) noted that the criteria for determining the appropriate rigor were the same for qualitative research and quantitative research.

RESEARCH DESIGN

This study involved a descriptive, phenomenological design. Qualitative phenomenological study was appropriate when the research problem required the exploration and understanding of a central phenomenon (Giorgi, 2010). In this study, the central focus included exploring the current special and regular teachers lived experiences regarding collaborative teaching methods in public secondary schools. Phenomenology enabled an examination of participants' vantage points, everyday life, and motives that created and shaped a phenomenon (Berry 2010).

An ethnographic design described, analyzed, and interpreted cultural organizations behaviors patterns (Preves, & Stephenson, 2009). An ethnographic design would not be suitable for the study because the purpose of this, qualitative descriptive phenomenological study was to explore current special and regular education teachers' lived experiences regarding collaborative teaching methods. A qualitative descriptive phenomenological research design was appropriate for this study to enable analysis of patterns pertaining to the central phenomenon (Austin, 2011). Phenomenology involved taking an intuitive experience or phenomenon and extracting features from the experience until the essence of the experience was uncovered (Preves, & Stephenson, 2009).

APPROPRIATENESS OF DESIGN

The purpose of this qualitative descriptive phenomenological study was to explore the lived experiences of current special and regular education teachers' regarding collaborative teaching methods. The study included face-to-face interviews with seven special and seven regular education teachers. One-on-one interviews were useful for understanding each participant's behaviors. The qualitative data collection format included in-depth interviews.

Based on the study findings, teachers might implement collaborative teaching methods to increase academic success and social adjustment. Interviews in qualitative studies took place in a structured setting. In this study, data collection included open-ended questions and face-to-face, in-depth interviews. The researchers adhered to principles of privacy and confidentiality regarding the participants' identities and responses and was non-biased in the development and administration of the questions.

The results of the study contributed to the body of knowledge pertaining to collaborative teaching methods. A qualitative grounded-theory study was not appropriate because the goal of this study was not to generate a theory explaining a broad concept, action, or interaction (Giorgi, 2010). Giorgi (2010) explained qualitative data collection allowed researchers to pose general broad questions for participants to allow them to share their perspectives without constraints.

Acquiring educators' lived experiences between collaborative teaching methods might assist in developing opportunities for school leaders to cultivate a cohesive instruction delivery method (Preves & Stephenson, 2009). The open-ended interview questions enabled the study participants to provide in-depth answers to a variety of questions pertaining to the study topic. The case study design was not appropriate for this study because it focused on a single subject in a bounded system, which was not the investigative intent of this study (Austin, 2011). A case study was not appropriate because it involved collecting data from available documents (e.g., public records, personal documents, and physical materials) already present in the research setting for analysis (Preves & Stephenson, 2009).

Given the study parameters, a qualitative descriptive phenomenological design was appropriate because such a design facilitated the discovery of participants' lived experiences in specific conditions (Giorgi, 2010). Qualitative research designs were more natural and holistic than quantitative research designs because of the focus on exploring the human experience in qualitative studies (Tinto, 2009). In a phenomenological research study, collaboration between researcher and participants was grounded in an understanding of the inter-subjective nature of relationships (Giorgi, 2010). Phenomenological research strategies supported the identification of weaknesses in the design and the use of corrective measures (Giorgi, 2010).

QUALITATIVE DESCRIPTIVE PHENOMENOLOGICAL STUDY

The purpose of this qualitative descriptive phenomenological study was to explore the lived experiences of current special and regular education teachers regarding collaborative teaching methods. A key purpose of collaborative teaching was “for teachers to inquire into an aspect of their practice in order to improve teaching and learning” (Austin, 2011, p.7). A modified survey served as the data collection instrument used to gather the data used that addressed the research questions guiding this study.

The specific problem was that some special and regular education teachers insufficiently understand the application of a collaborative teaching style when working together (Laborda, 2013). Laborda’s (2013) previous research on collaborative teaching concluded that teachers found collaborative teaching challenging because it required not only high levels of knowledge, but high level of design and planning skills. Each year more published anecdotal articles appeared claiming a quick fix for some educational problem, and thereby precluding important research. The problems that were identified included (a) special and general education teachers not willing to collaborate with each other, (b) lack of administrative support, and (c) lack of effective strategies in collaborative teaching situation.

GENERAL IMPLICATIONS

This kind of study would be beneficial for school administrators who ensure that appropriate collaborative teaching models are producing the appropriate student learning outcomes. It should be noted that the results of the study were based on the sample studied in the research. Because of the small set of sample,

it could be inferred that differences in the result and findings might gathered if another set of participants participated in the study. While this study only included a small sample of teachers using collaborative teaching models, the findings of the study might contribute information that facilitates the successful implementation of collaborative teaching models.

RECOMMENDATIONS FOR LEADERSHIP

In this study, special and regular education participants felt that school administrators did not offer enough planning time for teachers to effectively collaborate. The participants felt that school administrators should offer a mutual planning time for special and regular education teachers. Participants also believed that school administration could promote staff development attendance by offering incentives for regular and special education teachers’ full participation.

This study’s results might influence future development of teacher training programs that would prepare teachers for the collaborative teaching environment with the necessary skills needed when teaching disabled students in collaborative teaching setting (European Agency for Development in Special Needs Education, 2011). This study would be added to the knowledge in the field of educational leadership. School administrators and teachers might appreciate collaborative teaching models.

The implementations of effective strategies were critical for the success of collaborative teaching in regular and special education classrooms. School leaders might use this study results to gain a thorough understanding of collaborative teaching models. The results could determine ways for school leaders to administratively assist regular and special education teachers collaborate more effectively especially in terms of mutual planning time.

LIMITATIONS

The study was limited by the participants' possible biases, individual experiences, or tendencies that influenced their responses (Austin, 2011). Another limitation was the willingness and ability of the participants to provide open and correct responses in the in-depth interviews (Giorgi, 2010). The re-

searchers used a pilot study of three regular and three special education participants to review and evaluate the interview questions in order to increase the study's reliability and validity. Other limitations included the amount of time available for participation to provide open, honest, and accurate responses (Giorgi, 2010 p.53). A final limitation was the skill and objectivity of the researchers in examining the lived experiences of the participants.

This study has been delimited to specific demographical factors. This study could be replicated with different teachers in different regions to determine if the outcomes remain the same. This could indicate how demographics, culture, and socioeconomics might have had a significant effect on the results of this study.

In addition, this study did not consider the potential impact of teaching factors and environments such as teacher training and the support systems available for the teachers. There was no teaching intervention introduced in this study. These factors might have an impact on teachers' content knowledge and training regarding collaborative teaching.

This could be further investigated in future studies. It should be noted that the results of the study were based on the sample studied in the research. Because of the small sampling, it could be inferred that there could be differences in the result and findings if a larger set of participants participated in the study. This study's results might influence future devel-

opment of teacher training programs that would prepare teachers for the collaborative teaching environment with the necessary skills needed when dealing with the learning disabled students in collaborative teaching setting (European Agency for Development in Special Needs Education, 2011). While this study only included a small sample of teachers using collaborative teaching models, the findings of the study might contribute information that facilitates the successful implementation of collaborative teaching models.

RECOMMENDATIONS FOR FUTURE RESEARCH

The findings of this study indicated the need for continued research regarding instructional efficacy and student learning in collaborative instructional settings. Certainly, there were those special educators with years of qualified expertise who had stated the need to keep regular and special education students in the same classroom. Any subsequent studies should recognize that possible factors outside the classroom and in the home might play a greater role in determining student outcomes. Collaborative teaching as a means of education for both regular and special education students in the same classroom at the same time was one of the advocated interventions to support a quality education.

Future research might be a study taking into account what we knew now from this study about the similarities between teachers content knowledge, mutual learning benefits for teachers, mutual learning benefits for students, administrative support, and teacher development support received from the special education and regular education teachers to research how these factors influence student learning. Another possibility for future research would be a study based on the intervention strategies used in collaborative classrooms in various school districts to see if the needs of special education students would be met. This kind of study

would be beneficial for school administrators who would ensure that appropriate collaborative teaching models would be producing the appropriate student learning outcomes.

CONCLUSIONS

The results of this study included insights for teachers using collaborative teaching models. It was extremely important that one of the goals for regular education teachers and special education teacher is to create a true collaborative teaching atmosphere in the classroom. This study results might contribute to effective teaching strategies by providing knowledge about the efficacy of collaborative teaching in regular and special education in public secondary schools.

This study result also revealed the effectiveness of collaborative teaching between the regular and special education teachers in term of content knowledge, mutual learning benefits for teachers, mutual learning benefits for students, direct administrative support, and teacher development support regarding collaborative teaching in regular and special education learning environments. The significance of this study was that teachers, administrators, and educational leaders have more insight in how to improve collaborative teaching in their schools. The similarities mean that the teachers, whether regular education or special education practitioners should be able to create a classroom environment that is conducive for learning.

Based on the results of the study, it was concluded that general education and special education teachers both possessed similar attitudes and content knowledge toward collaborative teaching in general education classroom settings. The finding could promote effective collaborative teaching models to be used in different school systems. Using the findings and conclusions mentioned, the study

might be used to influence the development and revisions of a universal collaborative teaching model, inspire additional research studies, and provide educational leaders additional knowledge to improve collaborative teaching in educational institutions. It was incumbent on those in education to continue the search toward superior methods of collaborative teaching and learning.

Qualitative and anecdotal inputs were vital for collaborative teaching and also an acceptable means of educating students. They were appropriate alternative for providing students with an education that is especially adapted to both regular and special education students. The general education teacher set the tone for the classroom, and the special education teacher monitored students with special needs, and provided additional instructional accommodations.

A summary of this research study, implications, limitations, recommendations for leadership, recommendations for future studies and conclusions based on the findings of this study. The major emerging themes from the study included: content knowledge, mutual learning benefits teachers, mutual learning benefits students, administrative support, and teacher development support.

The results of the study included insights for teachers who used collaborative teaching models. The study results might contribute to positive social change by providing knowledge about the efficacy of collaborative teaching in regular and special education in public secondary schools.

REFERENCES

- Arthaud, T. I. (2007). Developing collaborative skills in pre-service teachers: A partnership between special and general education. *Teacher Education & Special Education, 30*(1), 1–12. doi:10.1177/088840640703000101
- Austin, V. L. (2011). Teachers' beliefs about co-teaching. *Remedial and Special Education, 22*(4), 245–255.
- Berry, R. (2010). Preservice and early career teachers' attitudes towards inclusion, instructional accommodations and

- fairness: Three profiles. *Teacher Educator*, 45(2), 75–95. doi: 10.1080/08878731003 623677
- Burke, W. W. (2011). *Organization change: Theory and practice* (3rd ed.). Los Angeles, CA: Sage Publications, Inc.
- Christensen, L. B., Johnson, R. B., & Turner, L. A. (2010). *Research methods, design, and analysis* (11th ed.). Boston, MA: Allyn & Bacon.
- Compton-Lilly, C. (2010). Learning about mason: A collaborative lesson with a struggling reader. *Reading Teacher*, 63, 698–700. doi:10.1598/RT.61.8.10
- Efthymios, V., Ioanna, P. A., & Iosif, F. (2009). A study on perceptions of Open University students about the use of effectiveness of collaborative teaching methods during the tutorial group meetings. *Review of European Studies*, 1(2), 22–33. Retrieved from <http://www.ccsenet.org/journal/index.php/res/index>
- Finley, W., & Waymire, T. (2012). Information literacy in the accounting classroom: A collaborative effort. *Journal of Business & Finance Librarianship*, 17(1), 34–50. doi:10.1080/08963 568.2012.629566
- Frey, N., & Fisher, D. (2010). Identifying instructional moves during guided learning. *Reading Teacher*, 64(2), 84–95. doi:10.1598/RT.64.2.1
- Friend, M., Cooke, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational & Psychological Consultation*, 20, 9–27. doi:10.1080/10474410903535380
- Gearhart, M., & Osmundson, E. (2012). *Assessment portfolios as opportunities for teacher learning* (CRESST Report 736). Los Angeles, CA: University of California, Center for Research on Evaluation, Standards, and Student Testing.
- Georgia Department of Education. (2013). *Georgia transition manual for students with disabilities*. Atlanta, GA. Retrieved from <http://www.public.doe.k12.ga.u>
- Giorgi, A. (2010). Phenomenology and the practice of science. *Existential Analysis: Journal of the Society for Existential Analysis*, 21, 3–22. Retrieved from <http://www.existentialanalysis.org.uk/journal/>
- Hakverdi-Can, M., & Sonmez, D. (2012). Learning how to design a technology supported inquiry-based learning environment. *Science Education International*, 23(4), 338–352.
- Haugwitz, M., & Sandmann, A. (2010). Collaborative modeling of the vascular system- designing and evaluating a new learning method for secondary students. *Journal of Biological Education*, 44, 136-140. doi:10.1080/00219266.2010.9656210
- Holdnack, J. A., & Weiss, L. G. (2006). IDEA 2004: Anticipated implications for clinical practice-integrating assessment and intervention. *Psychology in the Schools*, 43, 871–882. doi:10.1002/pits.20194
- Kariuki, M., & Duran, M. (2004). Using anchored instruction to teach preservice teachers to integrate technology in the curriculum. *Journal of Technology & Teacher Education*, 12(3), 431–445.
- Laborda, J. G. (2013). Co-teaching and other collaborative practices in the classroom. *British Journal of Educational Technology*, 44(3), 102–103. doi:10.1111/bjjet.12045-3
- Meadan, H., & Monda-Amaya, L. (2008). Collaboration to promote social competence for students with mild disabilities in the general classroom. *Intervention in School & Clinic*, 43, 158–167. doi:10.1177/1053451207311617
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107–110, § 115, Stat. 1425. (2002).
- Pandya, S. R. (2011). Organizational commitment of teachers in effective and ineffective schools. *Educational Quest*, 2(2), 261–268.
- Preves, S., & Stephenson, D. (2009). The classroom as stage: Impression management in collaborative teaching. *Teaching Sociology*, 37(3), 245–256.
- Reznitskaya, A. (2012). Dialogic teaching: Rethinking language use during literature discussions. *Reading Teacher*, 65, 446–456. doi:10.1002/TRTR.01066
- Scruggs, T. E., Mastropierrri, M. A., & McDuffie, K. A. (2007). Co-teaching in inclusive classroom: A metasynthesis of qualitative research. *Exceptional Children*, 73, 392–416. Retrieved from <http://journals.cec.sped.org/ec/>
- Tinto, V. (2009). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599–623. Retrieved from <https://ohiostatepress.org/index.htm?journals/jhe/jhemain.htm>
- Vaughn, S., Bos, C., & Schumm, J. S. (2007). *Teaching exceptional, diverse and at-risk students in the general education classroom* (4th ed.). Boston, MA: Allyn & Bacon.

Villa, R., & Thousand, J. S. (2004). *Creating an inclusive school* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Zhou, G., Jinyoung, K., & Kerekes, J. (2011). Collaborating teaching of an integrated methods course. *International Electronic Journal of Elementary Education*, 3, 123-138. Retrieved from <http://www.iejee.com/>

EXPLORING THE RELATIONSHIPS BETWEEN EDUCATION AND ATTITUDES ABOUT ANIMALS: A CASE STUDY OF THE HONEYBEE

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Abstract: This paper is an exploratory study designed to discover if an exploration of the natural history of the honeybee will affect attitudes toward the honeybee. Single session interviews were conducted with nine participants. Grounded theory was used to analyze the interviews and to develop a model that contained major themes about attitudes toward honeybees. A fourteen-week follow-up interview was conducted with four of the original participants. The follow-up was an opportunity for both the author and the participant to determine if that participant's attitude toward the honeybee persisted over the intervening fourteen week period. Is it possible that our attitude, and social construction of the honeybee as a pest, colors what we see when we look at the honeybee? Exploring the natural history of the honeybee may not create a fondness for the insect but one might discover along the way that the honeybee is a creature worth getting to know.

INTRODUCTION

Bees and men have been acquainted with each other during the whole of human history (Preston, 2006, p. 8). Because of its immensely long history in association with man, the bee has been more carefully observed, more celebrated, more storied and mythologized, and more feared than most other animals (Preston, 2006, p. 8). It is notable that small creatures can have power disproportionate to their size. Mosquitoes can make grown men run, as can spiders and bees (Lauck, 1998, p. 232).

Whenever we confront a living creature, in actuality or by reflection, that living creature is accompanied by an inseparable image of the essence of that being. That essence is made up of, or influenced by, our preexisting individual, cultural, and societal conditioning. Thus, the actual biological and behavioral traits of the living creature become transformed into an idea or construct that may or may not reflect the empirical reality of that living creature.

Unprovoked, honeybees usually go about their business unnoticed (Hubbell, 1988, p. 76). People usually commit the first offensive move by swinging at the insects (Hubbell, 1988, p. 77). Instead of swinging we could step back and take a closer look at the behavior of the honeybee. Perhaps a better measure of this insect comes into view when we explore the honeybees' factory-like world that some might describe as a complex, even political society (Kluger, 2014, p. 4).

LITERATURE REVIEW

OVERVIEW

Animals have occupied a central place in the physical and emotional lives of children across cultures, as is evident in a gamut of animal-related products, places, and hobbies that are of interest to children such as books, stickers, toys and games (Pattnaik, 2004, p. 95). As adults, attitudes toward animals are, for the most part, not a conscious part of American's day-to-day thinking but reflect customary relationships and practices (Kendall, Lobao and Sharp, 2006, p. 401). When adults do think about invertebrates, they are mostly associated with fear, antipathy, and aversion (Ballouard, et al, 2013, p. 95). Adults also tend to avoid invertebrates because they are small and behaviorally and

morphologically unfamiliar to them (Prokop, Prokop and Tunnicliffe, 2008, p. 445).

Even though they constitute 99 percent of all species on earth, invertebrates are not sufficiently understood or highly valued by people (Mather and Anderson, 2007, p. 119). Outside the field of entomology and the big business of agriculture, the popular culture's jaded view of bees focuses on their ability to sting us. This can lead to action in regard to animals that is performed by rote and subject to little introspection, i.e., honeybee seen simply as pest (Kendall, Lobao and Sharp, 2006, p. 404). The fact that bees can sting plugs them into an unimaginative track in mainstream society where other creatures with the potential to harm us also reside (Lauck, 1998, p. 171).

ATTITUDES TOWARD ANIMALS

It has long been known that humans find some animals more appealing than others. Pandas, lions, and other "charismatic megafauna" are considered pleasing while snakes, spiders, and most other invertebrates are not (Stokes, 2007, p. 361). It should come as no surprise then that the great majority of Americans reveal little appreciation of "lower" life-forms but tend to restrict their appreciation to larger vertebrates (Kellert and Wilson, 1993, p. 64).

Attitudes toward animals are significant. Children who throw stones at birds and children who feed birds are both responding to what may be an innate tendency to focus their attention on living things. The choice of behavior used to engage the animal in the interaction is different and it is a learned behavior (Kellert and Wilson, 1993, p. 175). It is difficult to study attitudes about animals and animal well-being. Most Americans do not question their customary relationships in the use of animals nor seek out information about the animals' quality of life (Kendall, Lobao and Sharp, 2006, p. 401).

Whether people want to think about it or not, it is important to engender greater appreciation and concern among the general public toward the spineless kingdom. Invertebrates perform vital services such as pollination, seed dispersal, and nutrient recycling (Black, Shepard and Allen, 2001, p. 42). In order to accomplish this appreciation and concern, it will be necessary to achieve a better understanding of the basis for hostile attitudes toward invertebrates, especially arthropods (Kellert, 1993, p. 851).

In his book *The Animal Mind: What they're thinking and feeling, and how to understand them*, author Jeffrey Kluger says that people may admire some animals but pity them as well because of their ignorance, their inconsequence, and their brief, savage lives (Kluger, 2014, p. 4). He also suggests that we have certain uses in mind for animals and that they don't much mind because they don't much notice, and to the extent that they do, their suffering is as crude and fleeting as their entire lives (Kluger, 2014, p. 4). Take the honeybee, for example. Beekeepers have found a clever way to exploit the bees' drive to fill their nests with honey. By housing their colonies in hives that provide vastly more nesting space than is needed by bees living in nature, beekeepers induce their colonies to amass astonishing amounts of honey, sometimes more than 220 pounds of honey per hive in a summer (Seeley, 2010, p. 31).

CREATING MORE POSITIVE ATTITUDES TOWARD ANIMALS THROUGH EDUCATION

Existing knowledge and social agreements about meaning not only limit how new experiences are interpreted, but also influence what is perceived in any situation (Hewson, 1992, p. 7). Beliefs are personal, subjective, often unprovable and illogical. They dictate what we think is possible. What we see may depend upon what we believe can be seen. Shifts occur only after people come to believe that something is possible (Wise, 2002, p. 22). In an attempt to create these shifts about

honeybees, for example, the author discussed a practice concerning honeybees that some would describe as democracy.

It has consistently been shown that species is an important determinant of belief in animal mind, and it seems that the greater the similarity between a particular species and humans, the more likely people are to attribute mental capacities to the species (Morris, Knight and Lesley, 2012, p. 213). For this reason, and again, in an attempt to create these shifts about honeybees, honeybee democracy will be an important topic.

A preconceived idea or prejudice is called a preconception. If we are placed in an environment where we are encouraged to recognize, confront and challenge our preconceptions and then work toward resolving them, we are headed in the direction of conceptual change. During conceptual change, a learner moves from an explicit discovery of his own existing knowledge and views, through a set of targeted challenges and opportunities, to a new level of understanding that is reinforced through application and extension of ideas and skills. Ultimately, the learner comes up with his own, new ideas to question and test. Conceptual change is like repairing misconceptions. Because learning involves changing a person's conceptions in addition to adding new knowledge to what is already there (Hewson, 1992, p. 8) perhaps an exploration of the natural history of the honeybee will affect attitudes toward the honeybee.

Furthermore, the purpose of conceptual change teaching of science is not to force students to surrender their alternative concepts to the teacher's or scientist's conceptions but, rather, to help students both form the habit of challenging one idea with another, and develop appropriate strategies for having alternative conceptions compete with one another for

acceptance (Hewson, 1992, p. 9). Based on prior conceptions and attitudes toward animals, this research will attempt to determine if an exploration of the natural history of the honeybee will affect attitudes about honeybees.

Prokop and Tunnicliffe (2008, p. 89) suggest that attitudes to less popular animals, like the honeybee, can be highly resistant to change so "it's a relief to know that we don't have to create the desire to like insects; we need only offer ways to explore them" (Lauck, 1998, p. 277). In their study, Prokop and Tunnicliffe administered a questionnaire about two unpopular animals, bats and spiders, to a group of school children aged ten to 16. This study revealed that the school children lacked knowledge of basic facts of these less popular animals and were unable to correctly reject alternative conceptions or myths about both of them. Furthermore, because many unpopular animals are emblazoned with various myths, a correlation existed between alternative conceptions or myths and attitudes toward the unpopular animals. More alternative conceptions resulted in more negative attitudes (Prokop and Tunnicliffe, 2008, p. 87). Because alternative conceptions about unpopular animals showed a significant relationship with children's negativistic attitudes toward these animals, the authors suggest that designing projects focused on less popular animals, and one that encompasses biological facts about those animals, may contribute to a positive attitude development toward such animals. This holds true for older children as well, a group whose attitudes toward animals in general decrease (Prokop and Tunnicliffe, 2008, p. 94).

Because of Prokop and Tunnicliffe's research, it is important to conduct research that challenges alternative conceptions and questions attitudes toward animals, particularly invertebrates since they are often labeled as unpopular. As adults we often realize that our attitudes and behaviors toward animals have been learned for the most part. We may have learned early on as a child that some lives

are lesser than others. Generally, a new conception is unlikely to displace an old one unless the old one encounters difficulties, and a new intelligible and initially plausible conception is available that resolves these difficulties. That is, the individual must first view an existing conception with some dissatisfaction before he will seriously consider a new one (Posner, et al, 1982, p. 220). In the case of honeybees, there is much information about their natural behaviors that could affect attitudes and even support the notion that honeybees are sentient creatures.

EMPIRICAL STUDIES

There are several studies that focus on the education of children about animals. An early study, conducted by Fitzgerald in 1981, examined the relationship between humane education and attitudes toward animals. In this study, a variety of school-based interventions were presented to 16 fifth and sixth grade classrooms. Each classroom received one of four interventions:

1. a teacher presented four humane education lessons over a two-month period (once every two weeks);
2. one intensive humane education lesson taught by a teacher in a single class session;
3. reading humane education material without any direct instruction; and
4. The control group, where the children did not receive any humane education.

All classrooms were pre- and post-tested using the Fireman Test, which requires children to select which items and/or pets they would attempt to rescue from a burning home. This study revealed that those children who had undergone one intensive humane education lesson taught by a teacher in a single class session displayed more humane attitudes toward

animals than the three other conditions studied. Fitzgerald concluded that one focused classroom presentation could have a positive impact on children's humane attitudes (Fitzgerald, 1981, p. 22).

In 1987, Hein studied the effectiveness of a school based humane education program. His study consisted of a second grade class where a single humane education program was presented and third, fourth and fifth grades, where three humane education programs were presented. All presentations consisted of fewer than three hours of total instruction. Compared to a no-intervention control group, Hein found that classrooms receiving humane education in the second, third, and fourth grades demonstrated significant increases in humane attitudes (Hein, 1987). No effects were obtained for fifth graders. As a result of his research, Hein recommended that substantially more intensive humane education be presented to children in order to effect significant changes in their attitudes (Hein, 1987).

In a later study, Ascione decided to do just that when he assessed the impact of a year-long humane education program on children's attitudes toward animals. Using a pre- and posttest design, Ascione measured the effect of humane education on the attitudes toward the animals and empathy toward humans (Ascione, 1992, p. 177). The study population consisted of 813 first, second, fourth, and fifth grade students, grouped by classroom, from two Northern Utah school districts. A minimum of forty hours of humane education during one school year was presented by each classroom's teacher.

Ascione found that the humane education program enhanced the animal related attitudes of the children differentially, depending on grade level (Ascione, 1992, p. 187). Qualitative analysis suggested that greater enhancement of humane attitudes occurred for first grade experimental classrooms over first grade control classrooms. Second grade classrooms

revealed no differences in enhanced attitudes. One very important result of this study is that there was a clear generalization effect from animal-related attitudes to human-related empathy for fourth grade children in the experimental classrooms. No difference was found for the fifth grade classrooms. This result lends support to the idea that children's compassion toward animals is related to their empathy toward humans (Ascione, 1992, p. 188).

In a follow up study, Ascione and Weber were able to locate and retest 80 percent of Ascione's original fourth grade study population and administer questionnaires one year after the end of his initial study. They found that the original fourth grade experimental group, now in fifth grade, had greater humane attitudes than the control group at not only the initial Year 1 post-testing but also at the Year 2 follow up (Ascione and Weber, 1996, p. 191). This study provided evidence that instruction for only one year led to maintenance of effects one year later. Humane education in the classroom can be an effective way to increase children's sensitivity toward other living beings (Ascione and Weber, 1996, p. 188). At both Year 1 and Year 2 post-testing, the enhancement of attitudes toward animals generalized to human-directed empathy. This was the first empirical study demonstrating that a humane education intervention can enhance children's attitudes toward animals, that intervention effects are maintained at least one year later, and that there is generalization from humane attitudes to human-directed empathy (Ascione and Weber, 1996, p. 192).

In the Ascione and Weber study, humane attitudes were taught to the children by their familiar classroom teacher. It is possible that the information was conveyed more effectively than would be possible with an unfamiliar instructor or researcher (Ascione and Weber, 1996, pp.

192-193). One implication of that research for the current author is that every participant exploring the natural history of the honeybee and their attitude toward honeybees is familiar with the author conducting the exploration.

A 2009 study by Arbour, Signal and Taylor evaluated the efficacy of a specifically designed literature based humane education program in terms of changes it might lead to in both the treatment of animals and human-directed empathy. Thirty-seven fourth grade students (twenty-three in the experimental group and fourteen in the control group) from two separate classes within a representative state-run school were given a two part pre –and post-test questionnaire. One part contained basic demographic questions while the second part consisted of self-report measures of both humane behavior toward animals and self-report measures designed to assess human-directed empathetic tendencies. Comparisons with an age-matched control group indicated that the four-week humane education program resulted in an increase in measures of empathy and treatment of animals, although only the increase in empathy levels was significant (Arbour, Signal and Taylor, 2009, p. 136). Furthermore, although both empathy and treatment of animal's scores increased following the intervention, only the empathy increase in boys was actually significant. The authors also determined that a literature based humane education program may be an effective way to increase both appropriate attitudes toward animals and human-directed empathy (Arbour, Signal and Taylor, 2009, p. 144).

A ten-week-long animal welfare education program that covered ten one-hour animal welfare topics served as the intervention for the six-year-old children in the experimental group in a 2010 study by Aguirre and Orihuela. The animal welfare course incorporated a variety of teaching techniques. One week before the animal welfare program began, a pre-test evaluation was given to all students (both

experimental and control group) to determine the degree of initial animal welfare knowledge. One week after the end of the ten week intervention, a post-test (utilizing the same questionnaire as the pre-test), was given to all students.

The results of the pre-test were similar between the experimental and control groups. Nevertheless, the number of correct answers in the experimental group during the posttest reflected more children's knowledge of animal welfare than the control group (Aguirre and Orihuela, 2010, p. 29). The authors actually commented that "the increase in animal welfare knowledge between the pre-test and posttest of the experimental group for the animal welfare questions was remarkable" (Aguirre and Orihuela, 2010, p. 29). These results contribute to the growing literature on the relationship between children and animals, demonstrating that a ten-hour course during one semester applied to six-year-old children can increase concepts about animal welfare, and that first grade children living in moderate economic conditions can assimilate animal welfare concepts (Aguirre and Orihuela, 2010, p. 30).

A 2012 study conducted by Rule and Zhbanova used a humane education program to enlighten twenty-six first and second grade children in the natural history of eight generally disliked animals (bat, skunk, snake, mouse, spider, centipede, cockroach, and mosquito). The goal of this study was to help the children understand the adaptations of these animals and appreciate their contributions to the environment. Six weekly hour-long lessons were given to the experimental group which included appealing images of the disliked animals, along with facts and poems that presented their lifestyles. Identical pretest and posttest questionnaires were administered to both the experimental and control group, exactly three months apart.

The first four lessons presented to the students in the experimental group began with the researcher telling students the names of two animals about to be studied and asking students to tell what they knew about the animals. The researchers then introduced posters of the two animals under study that featured ten facts about the creatures' lifestyle. Researchers read this information out loud to the students, who were then asked to discuss the details of what they had just heard and to make inferences regarding the creature on the poster. Discussion of the animals' lifestyles ensued with connections being made to students' previous knowledge of the creatures. The fifth lesson began with a couple of demonstration puppet plays where a disliked animal conversed with a human puppet. The human puppet listed some reasons as to why he did not like the animal. The disliked animal puppet offered explanations as to how these characteristics and behaviors helped the animal to survive or adapt to its environment. Following the play, small groups of students were formed. Each group had to write an original play featuring their choice of one of the eight disliked animals. Each group was required to tell facts about that animal in their dialog. During the sixth and final lesson, student took turns presenting their plays to the class. Class members remarked on the strength of each dramatization (Rule and Zhbanova, 2012, p. 225).

During both the pre-test and post-test, both groups of students were asked to rate their liking for the eight targeted disliked animals. Four generally-appreciated animals (dog, cat, goldfish, and butterfly) not discussed during the intervention were interspersed in the questionnaires and also rated. Results showed significant differences for the experimental group for all animals considered together and for the targeted animals as a group. The control group did not exhibit these differences (Rule and Zhbanova, 2012, p. 228). This study provides empirical evidence that learning about the natural history of an animal can change primary

students' liking for the animals (Rule and Zhanova, 2012, p. 228). Rule and Zhanova (2012, p. 224) indicate that in elementary classrooms, humane education lessons can have a positive effect, even on attitudes regarding unpopular animals. In his 2002 study, Shepardson examined children's ideas about insects and ways in which their ideas about them change from kindergarten to fifth grade. Shepardson interviewed twenty children from the same school in the Midwest from each of six grade levels (kindergarten to fifth grade) for a total of 120 children. Shepardson collected data through the use of children's drawings and explanations of insects, semi-structured interviews about experiences with insects, and discussions of what makes an organism an insect. He found that in first through fourth grade students, themes of insects as harmful emerged because human-insect interactions were referred to in terms of direct harm to humans like a bite or sting (Shepardson, 2002, p. 634). Some third and fourth graders referred to insects in terms of agricultural or horticultural detriments, for example, eating plants and flowers, as well as to direct harm to humans (Shepardson, 2002, p. 634). As a group, the children tended to emphasize the negative aspects of insects, for example, stinging and eating flowers, but failed to recognize the beneficial aspects of insects (Shepardson, 2002, p. 639).

Shepardson points to the fact that that ideas about insects reflected understandings based on physical characteristics of size and shape, arthropod characteristics, insect characteristics, human-insect interactions, life habits of insects, feeding habits of insects, and means of locomotion. He also acknowledged the fact that the children's learning about insects was partly

influenced by the personal ideas and understandings they had previously constructed about the insects.

Research has shown that children's pre-instructional alternative conceptions influence and guide their school science learning (Shepardson, 2002, p. 627). Shepardson found that alternative conceptions influence learning so it was important to know about the prior assumptions that participants held so that he would know what learning experiences might challenge the participant's ideas and understanding about insects.

STUDY DESIGN

OVERVIEW

This study explored the connection between education about animals, specifically honeybees, and attitudes toward animals. While encouraging study participants to share, discuss and examine prior assumptions and alternative conceptions, this exploratory study attempted to specifically answer the question: Will an exploration of the natural history of the honeybee affect attitudes toward honeybees?

As Shepardson concluded, by including instructional activities that reflect the progression of prior ideas and that move toward a factual, ecological understanding of insects, conceptual understanding of insects and their biological thinking may be enhanced (Shepardson, 2002, p. 628). It is unlikely that very many people will develop affection or an affinity for invertebrates but it is plausible that a more compelling depiction of their extraordinary contributions to human welfare and survival will do much to improve the public attitude toward these organisms (Black, Shepard and Allen, 2001, p. 47). Using conceptual change educational strategies as the foundation, this study explored the possibilities.

DATA COLLECTION AND INTERVENTION

Interviews

Nine research participants, all part of the author's group of friends and acquaintances, agreed to take part in the study. Of the nine participants, five were female and four were male and were between the ages of 36 and 54. None of the participants were beekeepers or employed in the agricultural industry nor had any indicated that they had given much thought to the natural history of honeybees.

All nine participants agreed to recordation of the interview. The interviews had a flexible format where participants could fully explore the natural history of the honeybee and their attitudes toward honeybees. The author introduced educational pieces on honeybees during each interview. The four interview questions were as follows:

1. What has been your experience with honeybees?
2. Do you like or dislike honeybees?
3. What do you know about honeybees?
4. Do honeybees have mental abilities?

The author transcribed the recorded interviews verbatim. In order to protect participant's identities, each transcribed interview was assigned the identifier of Honeybee # 1, Honeybee # 2, Honeybee # 3, etc. Author's Relationship with Research Participants

Honeybee # 1: Friend for twelve years.

Honeybee # 2: Friend for fourteen years.

Honeybee # 3: Acquaintance for six years.

Honeybee # 4: Friend for eleven years.

Honeybee # 5: Friend of family for six years.

Honeybee # 6: Friend for fourteen years.

Honeybee # 7: Friend for thirteen years.

Honeybee # 8: Acquaintance for four years.

Honeybee # 9: Friend for eleven years.

Intervention

The author conducted a single session interview with each participant on an individual basis. Our exploration of the natural history of the honeybee was the primary means of intervention. The goal was to assess if an exploration affected attitudes toward honeybees.

First interview question: What has been your experience with honeybees? This question was asked first so that the participant could offer prior assumptions and ideas, whether based on facts or alternative conceptions or a mixture of both, that offered clues as to how the concept of the honeybee had been constructed.

Second interview question: Do you like or dislike the honeybee? This question assessed the current attitude toward the honeybee. It was also a way for the author to understand if the participant's current attitude was based on prior assumptions or alternative conceptions.

Third interview question: What do you know about honeybees? This question allowed the participant to think about what information and experiences have affected their current attitude toward the honeybee and to begin to assimilate new information.

Fourth interview question: Do honeybees have mental abilities? Participants had the opportunity to reflect on their initial assumptions and constructions, as well as their initial attitude toward the honeybee, think about the discussion of the natural history of the honeybee during the interview, and to discuss their current attitude toward honeybees.

DATA ANALYSIS

The author's research was aimed at developing a theory of how an exploration of the natural history of the honeybee affected attitudes about honeybees. Grounded theory was used to analyze the interviews and to develop a model that contained major themes about attitudes toward honeybees. Themes emerged throughout the interviews.

The goal was to discern those themes in the interviews, producing definitions for each theme which had arisen from the data. By focusing on the major elements that described each theme and discovering patterns and connections within themes, the author attempted to find and share a deep and meaningful understanding of the nature of an exploration of the natural history of the honeybee and to analyze if this exploration affected attitudes toward honeybees.

FOLLOW-UP INTERVIEWS

Fourteen weeks after the initial interview, the author contacted all nine original research participants to determine their willingness for a follow-up. Four of the original research participants agreed to a follow-up interview.

During the follow-up interview, the author read the original question and then read the response the participant had given to that question during the initial interview. After all four question and response answers were read to the participant, the author asked the following follow-up questions to each participant:

1. Have you thought about honeybees since the initial interview?
2. Have you done any research on honeybees since the initial interview?
3. Have you done anything with the information that you learned during the initial interview and/or the in-

formation you researched on your own regarding honeybees?

4. What is your current attitude toward the honeybee?

This study investigated the connection between education about animals and attitudes toward animals, specifically, whether an exploration of the natural history of the honeybee affected participant's attitudes toward honeybees. The follow-up interview was used to determine if the shift in attitudes toward the honeybee persisted over a fourteen week period.

FINDINGS/ANALYSIS

This study investigated the connection between education about animals and attitudes toward animals, specifically, whether an exploration of the natural history of the honeybee would affect participant's attitudes toward honeybees.

BEFORE INTERVENTION

The following sections of analysis reflect data gathered during a flexible format where participants could fully explore the natural history of the honeybee and their attitudes toward honeybees.

PAST EXPERIENCE WITH HONEYBEES

Six participants revealed a fear of the honeybee. Honeybee # 1 stated, "The honeybee is just one bug on a long, big list of biting insects that want to sting if you get too close." Honeybee # 2's description of the honeybee best describes a common reaction among participants. "You have to swat at the honeybee to protect your body and to distract it for just enough time in order to get away." Furthermore, Honeybee # 9 stated a fear of the honeybee and rationalized this fear of the honeybee using this explanation:

Unlike the honeybee, the bumble bee is big, fat, and round which makes it slow. You can see it coming from a mile away. The honeybee is slick, quick and a hard worker

which makes it easier for it to sneak up on you and sting before you know what hit you.

It should be noted that of the six participants who declared a fear of honeybees, only one had actually ever been stung by a honeybee.

Like or dislike of honeybees

Four participants stated a general dislike of honeybees, and an even greater dislike of them when encountered outside, because they believed that honeybees are attracted to and want to eat their food at a picnic. Four participants were indifferent toward honeybees. The remaining participant, Honeybee # 5, offered a recent experience which sums up his view of the honeybee:

I like honeybees! I saw one on a cold morning last week. It was on the sidewalk and he wasn't moving around too much. I picked it up with my hands and set it to the side so that it could be safe.

KNOWLEDGE OF HONEYBEES

Eight participants stated, what most characterized as obvious fact, that honeybees make and store honey. Three participants believed that they had read or heard that honeybees were on the decline. Only two participants discussed honeybees as pollinators. Seven participants were aware that there is a queen bee in the hive but none of them knew that the workers in the hive were female. They all assumed that the workers were male. One participant was aware of the division of labor within the hive and correctly described the queen as the only honeybee that produces eggs for the hive. One participant wondered if honeybees occur naturally in the environment, and if they do, what use are they to anyone.

AFTER INTERVENTION

After the participants shared their initial ideas and attitudes about honeybees, the author introduced them to information about the natural history of the honeybee. The sections below describe the participant's responses after this information was shared.

Honeybees and Mental Abilities

After a discussion regarding the waggle dance, two participants stated that they did not believe that honeybees have mental abilities and did not want to continue to discuss the topic. A third participant empathically rejected the idea. Honeybee # 2 said, "No way! Honeybees do not have mental abilities. Only human life has true sentience. Only humans have evolved to where there is sophisticated awareness." A fourth participant, Honeybee # 6 commented, "I think that the waggle dance represents something more than instinct but it might just be a mechanism that they use. I would say that honeybees don't have mental abilities." The remaining five participants, after long pauses and some head scratching, revealed that they suspect that honeybees do have mental abilities or, at the very least, some sort of control center. Participants did seem to be pondering their ideas about honeybees and perhaps this new information was causing them to challenge their own prior assumptions. This might account for the long pauses and "head scratches."

A discussion regarding honeybee democracy clearly demonstrated a shift in attitudes. As Honeybee # 2 stated, "Wow! Honeybee democracy is just like our system of democracy. This is amazing. Hearing about this makes me have respect for honeybees. I'll think twice about my reaction the next time I see a honeybee."

Before the educational pieces were presented to Honeybee # 8, this participant expressed a fondness for animals in general but used the word "indifferent" to describe her current attitude toward the honeybee. After the intervention, this participant

described the honeybee as being similar to us. Furthermore, the topic of honeybee democracy appeared to make the honeybee lose its “yuck” factor.

Honeybees and Pain and/or Suffering

Four participants stated that based on the information shared about the waggle dance and honeybee democracy, honeybees probably have the capacity to feel pain. Four participants did not believe that honeybees can feel pain. The remaining participant, Honeybee # 8 shared, “This small insect is very intricate, both individually and as a member of the hive. It would be impossible for us to ever figure out if they are able to experience pain.” With regard to suffering, as defined by the author as the state of undergoing distress or hardship, after much thought, eight participants stated their belief that honeybees do not experience suffering. But one participant, Honeybee # 9, shared, “I think that they can feel pain but maybe not suffering. I’m not certain if they can anticipate so I’m unsure as to whether or not they can suffer.”

Impact of New Information on Attitudes Toward Honeybees

Honeybee # 1 stated that this new information about the honeybee was going to be shared with her children. It was Honeybee # 1’s belief that previous encounters with the honeybee had gone wrong because of a learned reaction on the part of the human. Honeybee # 1 also stated that future encounters need to be reevaluated in light of this new information. Toward the end of the interview Honeybee # 1 even asked, “Are humans the honeybee’s biggest predator?” This concern for honeybees was also mentioned by Honeybee # 6. Two participants suggested that instead of running away from honeybees we should thank them for pollinating. Honeybee # 3 and Honeybee # 7 said, “We need the honeybee but honeybees don’t need us.”

Perhaps the greatest impact between an exploration of the natural history of the honeybee and attitude toward honeybees was felt by Honeybee # 8:

I don’t think that a lot of people care about the honeybee because I think that a lot of people don’t think about the honeybee. We had a great discussion about them and if I can see that the honeybee communicates and lives its life in a way that it was made to do so, and although it is a being that is different from the way that I experience life, I don’t need to identify with the honeybee as being similar in all facets to me in order to know that the honeybee is a being worth living in this world. People should learn more about the honeybee. If we don’t understand them then we are able to swat them or simply push them aside. When we were talking about the way that beekeepers can exploit the honeybee by building bigger hives than they need, knowing that the honeybee will then store honey in that bigger hive which allows the beekeeper to then take all that extra honey, practices like this will start to come into question. And people don’t want to think about practices like this because it is very easy to not think about them and to just push it all away.

FOLLOW-UP INTERVIEW FINDINGS

Fourteen weeks after the initial interview, the author conducted individual follow-up interviews with four of the original participants. The follow-up interview provided an opportunity for both the author and the participants to determine if the participants shift in attitudes toward the honeybee persisted over the fourteen-week period.

Honeybee # 1

During the follow-up interview, Honeybee # 1 told the author that she had continued to reflect on the honeybee. In the follow-up interview, Honeybee # 1 said the following:

I think that they are kind of like us. They have their own society. They have their own language. They have their own way that they communicate with each other. Honeybees scout for a new home and have this dynamic in the hive where they know their job and what needs to be done. I've realized that honeybees go about their day like me. They work hard doing their thing. They improve my life in the process of what they do concerning their efforts in pollination. Kids are generally afraid of bees but I don't think that they have any idea that we need them for pollinating so much of what we eat. I think that there should be education in elementary school on honeybees. That would help out on changing attitudes toward them. Do attitudes toward animals start with parents or does it start with children? If children were taught something in school and then they took that information home to their family, it would be interesting to know if that education would not only change the children but their family as well.

Honeybee # 6

During the fourteen-week follow-up interview, Honeybee # 6 told the author that the original discussion on honeybees had piqued his interest in the honeybee. He discussed an article he read about training bees to sniff out explosives.

Honeybee # 8

Honeybee # 8 maintained her positive attitude toward the honeybee during the fourteen-week follow-up interview. Furthermore, this participant told the author the following story:

I had the choice of helping or killing a bug a few weeks ago. Since our first interview, I've thought about what I

said about my attitude toward the honeybee but I've wondered about my possible actions toward bugs in general. I thought that I would probably help a bug rather than kill a bug if I had to make the choice.

A bug was flying around a pregnant woman on the shuttle bus. The woman said that she was allergic to it and asked if someone would squish it. Instead, I captured the bug in this "container" I made from a makeshift card that I had with me and then I waited until we got to our stop and then I let it go. I guess I am practicing what I preach. Maybe I can set a good example.

Honeybee # 9

This participant maintained his initial attitude toward the honeybee. He continued to be fearful of honeybees and he still believed that honeybees did not suffer. Honeybee # 9 did discuss the fact that during the intervening fourteen weeks he had watched a short video on-line about planting bee friendly gardens and wildflowers. He discussed footage of the honeybees displayed during the video and described the honeybee movements as "graceful."

CONCLUSION/RECOMMENDATIONS

We all need to be concerned with animal welfare, particularly when it comes to invertebrates. "When people do offer concern toward animals, they reveal little appreciation of "lower" life-forms but tend to restrict their appreciation to larger vertebrates" (Kellert and Wilson, 1993, p. 64). This idea came up during the interview with Honeybee # 2. Recall that Honeybee # 2 expressed the need to swat at the honeybee in order to protect himself. Also recall this participant's belief that primates are the closest animal to us and that he would never harm, hurt or swat at a primate. This author's research shows that it is possible to not only get people to consider their attitudes toward animals but, more importantly, to

consider how their attitude impacts animals. Honeybee # 1 had initially placed the honeybee among a long list of insects that want to sting if you get too close. But after an exploration of the natural history of the honeybee, this participant shifted her attitude and believed that future encounters with the honeybee would need to be reevaluated in light of the information on honeybees. Furthermore, Honeybee # 1 demonstrated that thinking about your attitude toward the honeybee can impact your concern for the honeybee when she asked the author if humans are the honeybee's biggest predator.

So how do we affect attitudes toward animals and gather concern for the welfare of animals, specifically attitudes toward and concern for honeybees? As this research demonstrates, one way is through an exploration of the natural history of the honeybee. This author's research reveals a clear relationship between an exploration of the natural history of the honeybee and its implications for creating a positive attitude toward honeybees. Furthermore, this research points to the fact that a focused, single session exploration of the natural history of the honeybee led by a subject matter expert can have a positive impact on attitudes toward the honeybee. Finally, the follow-up interviews demonstrated that fourteen weeks after the initial humane education session regarding honeybees, positive attitudes toward the honeybee remained, and in some cases, progressed. This positive attitude toward the honeybee was even carried over to other invertebrates.

As this research has shown, humane education can play a role in shifting attitudes toward animals, specifically attitudes toward the honeybee. Through a single session of an exploration the natural history of the honeybee, it appears that the "official" version of the construction of the honeybee as "pest" can be

reconsidered and at least partially reconstructed. While allowing participants to ask questions and offering educational information on the honeybee, participant's fears that had once paralyzed their thoughts and impeded their concern for the welfare of the honeybee were untangled. Future improvements in the welfare of animals depend crucially on the attitudes and beliefs of society (Paul and Serpell, 1993, p. 335). Attitudes can shift and concern can evolve for animals, even those considered undesirable, such as invertebrates.

One limitation of this study is that it involved a small group of only nine research participants. A second limitation of this study is that the author was unable to conduct a follow-up interview with all nine original research participants. A third limitation of this study is that the follow-up interviews that were conducted with four of the initial research participants covered only an intervening fourteen week period. Future studies might consider a much longer intervening period to determine if, and at what point, a shift in attitudes either reaches a constant level, progresses or even if it reverts back to its original level of disinterest or negative attitude. A fourth limitation of this study is that the author had a personal relationship with the research participants. This study demonstrated that the intervention worked because new information about honeybees helped people in general re-examine their attitudes but it is unknown from this study if that would work in cases where the instructor is not known to the student. But this familiarity between the instructor and the student might actually be a benefit to future humane education efforts. Recall that the Ascione study, where the results lend support to the idea that children's compassion toward animals is related to their empathy toward humans (Ascione, 1992, p. 188), was a humane education program that employed classroom teachers familiar to the students. My research revealed similar results. These findings might alter the current approach to

humane education where outside guest speakers are brought in to teach lessons to unfamiliar students. Finally, future research might look to incorporate whether there is a connection between an exploration of the natural history of the honeybee and its impact, if any, on human empathy.

Making a difference in the lives of animals is predicated on our ability to explore and interpret information about how society sees them and their attitudes toward them. Just like the honeybee who must be part of a colony in order to survive, animal advocates and humane educators need to join together to shift attitudes and to help people to discover that the honeybee is a creature worth getting to know. Along the way, previously constructed boundaries might be merged and could even lead to thoughtful decisions with regard to ethical engagements with all animals.

REFERENCES

- Aguirre, Virginio and Orihuela, Agustin, "Assessment of the Impact of an Animal Welfare Educational Course with First Grade Children in Rural Schools in the State of Morelos, Mexico," *Early Childhood Education Journal*, (38), 1, 27–31, 2010.
- Arbour, R., Signal, T., and Taylor, N., "Teaching Kindness: The Promise of Humane Education," *Society and Animals*, (17), 2, 136–148, 2009.
- Ascione, Frank R., "Enhancing Children's Attitudes About the Humane Treatment of Animals: Generalization to Human-Directed Empathy," *Anthrozoos*, (5), 3, 176–191, 1992.
- Ascione, Frank R. and Weber, Claudia V., "Children's Attitudes about the Humane Treatment of Animals and Empathy: One-Year Follow up of a School-Based Intervention," *Anthrozoos*, (9), 4, 188–195, 1996.
- Ballouard, Jean-Marie, Ajtic, Rastko, Balint, Halpern, Brito, Jose C., Crnobrnja-Isailovic, Jelka, Desmonts, Diane, ElMouden, El Hassan, Erdogan, Mehmet, Feriche, Monica, Pleguezuelos, Juan Manuel, Prokop, Pavol, Sanchez, Aida, Santos, Xavier, Slimani, Tahar, Tomovic, Lijiljana, Usak, Muhammet, Zuffi, Marco, and Bonnet, Xavier, "Schoolchildren and One of the Most Unpopular Animals: Are They Ready to Protect Snakes?," *Anthrozoos*, (29), 1, 93–109, 2013.
- Black, Scott Hoffman, Shepard, Matthew and Allen, Melody Mackey, "Endangered Invertebrates: the case for greater attention to invertebrate conservation," *Xerces Society*, (18), 2, 42–50, 2001.
- Fitzgerald, Thomas A., Jr., "Evaluating humane education: The Jefferson County study," *Humane Education*, (5), 3, 21–22, 1981.
- Hein, G. 1987. Massachusetts Society for the Prevention of Cruelty to Animals Outreach Program Evaluation (Final Report). Boston, MA: Boston SPCA.
- Hewson, Peter W. 1992. Conceptual Change in Science Teaching and Teacher Education. Paper presented at a meeting on "Research and Curriculum Development in Science Teaching," under the auspices of the National Center for Educational Research, Documentation, and Assessment, Madrid, Spain.
- Hubbell, Sue. 1988. *A Book of Bees*. New York, New York: Random House.
- Kellert, Stephen R., "Values and Perceptions of Invertebrates," *Conservation Biology*, (7), 4, 845–855, 1993.
- Kellert, Stephen R. and Wilson, Edward O. 1993. *The Biophilia Hypothesis*. Washington, District of Columbia: Island Press.
- Kendall, Holi A., Lobao, Linda M., and Sharp, Jeff S., "Public Concern with Animal Well-Being: Place, Social Structure Location, and Individual Experience," *Rural Sociology*, (3), 71, 399–428, 2006.
- Kluger, Jeffrey. 2014. *The Animal Mind: What they're thinking and feeling, and how to understand them*. New York, New York: TIME Books.
- Lauck, Joanne Elizabeth. 1998. *The Voice of the Infinite in the Small: Revisioning the Insect-Human Connection*. Mill Spring, North Carolina: Swan•Raven Co.
- Mather, Jennifer A., and Anderson, Roland C., "Ethics and invertebrates: a cephalopod perspective," *Diseases of Aquatic Organisms*, 75, 119–129, 2007.
- Morris, Paul, Knight, Sarah, and Lesley, Sarah, "Belief in Animal Mind: Does Familiarity with Animals Influence

- Beliefs about Animal Emotions?," *Society & Animals*, 20, 211–224, 2012.
- Pattnaik, Jyotsna, "On Behalf of Their Animal Friends: Involving Children in Animal Advocacy," *Childhood Education*, (81), 2, 95–100, 2004.
- Paul, E. S. and Serpell, J. A., "Childhood Pet Keeping and Humane Attitudes in Young Adulthood," *Animal Welfare*, 2, 321–337, 1993.
- Posner, George J., Strike, Kenneth A., Hewson, Peter W., and Gertzog, William A., "Accommodation of a Scientific Conception: Toward a Theory of Conceptual Change," *Science Education*, (66), 2, 211–227, 1982.
- Preston, Claire. 2006. *Bee*. London, England: Reaktion Books.
- Prokop, Pavol, Prokop, Matej, and Tunnicliffe, Sue D., "Effects of Keeping Animals as Pets on Children's Concepts of Vertebrates and Invertebrates," *International Journal of Science Education*, (30), 4, 431–449, 2008.
- Prokop, Pavol and Tunnicliffe, Sue Dale, "Disgusting Animals: Primary School Children's Attitudes and Myths of Bats and Spiders," *Eurasia Journal of Mathematics, Science & Technology Education*, (4), 2, 87–97, 2008.
- Rule, Audrey C., and Zhanova, Ksenia S., "Changing Perceptions of Unpopular Animals Through Facts, Poetry, Crafts, and Puppet Plays," *Early Childhood Education Journal*, 40, 223–230, 2012.
- Seeley, Thomas D. 2010. *Honeybee Democracy*. Princeton, New Jersey: Princeton University Press.
- Shepardson, Daniel P., "Bugs, butterflies, and spiders: children's understanding about insects," *International Journal of Science Education*, (24), 6, 627–643, 2002.
- Stokes, David L., "Things We Like: Human Preferences among Similar Organisms and Implications for Conservation," *Human Ecology: An Interdisciplinary Journal*, (35), 3, 361–369, 2007.
- Wise, Steven M. 2002. *Drawing the Line: Science and the Case for Animal Rights*. Cambridge, Massachusetts: Perseus Books.

COMMUNICATION BETWEEN PRIVATE AND PUBLIC LAW ENFORCEMENT POST 911 IN CALIFORNIA

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Abstract: Previous research has not examined the communication between municipal police officers and security officers in Tulare, and Fresno counties of California. The purpose of this study was to investigate the impact of prior successful terrorist activities and the extent of communication barriers, and equipment interoperability between public and private law enforcement agencies. This research study has aimed to better understand how lives can be saved if communications were better implemented between security and police. This study utilized a qualitative phenomenological research with convenience sampling inclusive of semi-structured interview questions, tape recordings, handwritten notes, and observations concerning how communications sampling between agencies are handled using the aspects of the social contract theory. Data for this study was obtained from 14 police officers and security professionals. Questions that had been addressed in this study included:

(1) How have the communication interactions, styles, and training evolved between public police and private security post-9/11? and

(2) Why are police and security officers more or less responsive toward each other regarding communications and services post-9/11?

The results of this study has shown the need to communicate efficiently between law enforcement agencies and to use the security orientated manpower for economic, safety and security of the general public. In the future, there is more research needed in communications between all law enforcement agencies for the betterment, safety and security of society.

INTRODUCTION

This study has explored the many challenges that both the municipal police and security personnel have in reporting and communicating among each agency and in communications in the counties of Tulare, and Fresno counties of California, and nationally.

This study investigated the impact of prior successful terrorist activities and the extent of communication barriers, and equipment interoperability between public and private law enforcement agencies.

There are approximately 4,956 security officers in Tulare and Fresno counties as of 2010 (Commission on Peace Officer Standards and Training, 2010). In February 2012, there was an increase of 596 security officers, totaling 5,551 officers (California Department of Consumer Affairs Bureau of Security and Investigative Services, 2012). Security officers interact daily with the municipal police in a diversity of law enforcement shedding and communication activities that need co-training and communication equipment upgrade. Shedding of services is when an agency subcontracts another company or agency to do some of their jobs or work that may be considered overtime or is mundane or is work or a job that is cumbersome or taxing (Donahue, 1989). The use of shedding of services showed a great need of communication post-9/11 for the municipal police and security agencies to communicate on a regular basis for the safety and security of society.

Since the tragic events of 9/11, relying on old equipment and outdated communication styles has impeded the communication progress between law enforcement agencies. Private security officers and the police officers interact with each other with current outdated communication equipment and with the failing economy this is often cumbersome. Addressing communication gaps of the police-security relationships is best accomplished through police-and security-based community relations and awareness communications.

As a prime example, the public and many municipal police see the security officer as someone who does not have an education or a professional background in law enforcement (Manzo, 2003). Security personnel are trained in security procedures, loss prevention, and crime prevention. Security personnel are mandated to undergo yearly classes by the state of California Advanced Certification Training program. In addition to the advanced training, a recertification is required every 2 years; this certification is from California Association of Licensed Security Agencies, Guards and Associations and recognized as CALSAGA (California Department of Consumer Affairs Bureau of Security and Investigative Services, 2010).

Many security officers are highly educated, come backgrounds such as bounty hunters, private detectives, retired military, off-duty police officers and prior police officers. Police officers too have had security jobs as second employment or have been security officers prior to becoming a police officer. Some security officers often are identified as reserve officers whom were trained by the Peace Officer Association (California Department of Consumer Affairs Bureau of Security and Investigative Services, 2010; Commission on Peace Officer Standards and Training, 2010).

Much of the mistrust and miscommunication between the police, security officers, and the community is the direct cause of human errors and a lack of accurate communication (Tulare County Sheriff, 2009). For example, the media is often the catalyst for negative communication between security, police, and society. The media portrays the police and security as mechanical in their response to situations. The media often do not fully understand the situation; and usually, the problem is as simple as having com-

munication gaps and preconceived notions (Smith & Messina, 2004).

Inflation is affecting the hiring of qualified police officers across the State of California. Hiring security personnel is cheaper when calculating the cost of manpower, insurance, workers' compensation, and communication equipment (City of Visalia Police Department, 2009). Communications equipment is usually an afterthought, and is not considered as an additional expense when hiring new officers until after all of the available funds have been spent.

An example of cooperation between police and security are campaigns that have evolved into crime prevention and police–community activities. The police are relieved of many time consuming services when security officers are often handed out police shedding of services. Outsourcing can provide businesses with alarm protection, and viable solutions to crime prevention strategies such as using security patrols instead of police patrols (Donahue, 1989). The police can implement security techniques and can provide businesses with advice about how to hire security personnel. The end results of these campaigns are to communicate efficiently and to use the security manpower. The relief of the police officer's workload is by providing security-oriented style policing to private citizens and business (Donahue, 1989).

LITERATURE REVIEW

Literature indicates that a problem of communication between private and public law enforcement exists. The National Commission on Terrorist Attacks upon the United States 2004 *9/11 Commission Report* stated that much undue tragedy occurred during the 9/11 terrorist incident. Lost lives also could have been prevented had communication equipment been updated, and security and police had been on the same radio frequencies. Lives also could have been saved if

communications equipment had the use of interoperability, and emergency alarm systems were compatible.

In 2011 on CNN's *360 Degrees*, Anderson Cooper interviewed police chiefs and politicians in New York City who stated the recommendations of, "*The 9/11 Commission Report*" have not been followed. The problem appeared to be a gap in communication, outdated equipment, and lack of police–security communications, updated emergency services, and alarm systems incompatible with the current systems. Cooper (2011) believed the communication barriers were due to different codes and response procedures.

According to *The 9/11 Commission Report*, many lives were lost as a result of a lack of communication, and equipment interoperability (National Commission on Terrorist Attacks upon the United States, 2004). In the interviews provided by CNN's *360 Degrees* Anderson Cooper (2011), it was also concurred by police chiefs and politicians that the United States needs to have interoperability of equipment and combined emergency services. This would ensure that all law enforcement agencies could have open communication available and an ability to work together to prevent or lessen fatalities of future tragedies.

Grabosky (2007); and Wakefield (2007); Manzo; Hummer and Nalla; Manunta (2007) further stated that continued social scientific study of this phenomenon between the two entities is necessary in the United States (U.S.). Communication biases, outdated equipment, and emergency response system gaps must be addressed between municipal police and private security. The specific problems of communication post-9/11 are but not limited to, old equipment, lack of communication, lack of equipment interoperability, and lack of universal training.

Tulare and Fresno counties overlap geographically. There are many blurred dividing lines between how security officers and police officers handle emergencies. Uncertain is how many security agencies and police depend upon the practice of shedding in certain unincorporated areas. This research study has aimed to better understand how lives can be saved if communications were better implemented between security and police. Vital questions must be answered in order to get a clear picture of the communication needs and gaps between security and local police. The municipal police and security workloads in Tulare and Fresno counties have increased since September 11, 2001 (Commission on Peace Officer Standards and Training, 2010). The police often have outsourced duties by shedding of services. Shedding of services includes alarm monitoring, patrol of businesses, Community Watch programs, and security firms attending to police service meetings.

The *Social Contract Theory* (Gaines & Kappeler, 2003) can be used to explain how the U.S. government provides safeguards and security to its citizens for compliance of social order, restrictions of certain freedoms, such as taxation to ensure safety and security, and that all adheres to the U.S. Constitution (O'Brien, 2000). The *social contract theory* upholds the safety of the citizens by providing police protection to all regardless of income or social status. Locke and Rousseau expanded upon *The Social contract theory*. Locke and Rousseau of the 18th century coined and theorized the modern social contract theory. Locke and Rousseau believed communication between persons in society as most important. Locke and Rousseau viewed communication between persons in society as an integral element for the democratic reforms for social order we see in the organization and development of today's U.S. democracy.

Poggi (1972) suggested that society mostly concerned itself with social norms and enforcement of these norms. Law enforcement activities are

taken for granted in the social contract with the government pertaining to safety and security of the common good of the general public in the United States. One way to enforce social norms is through intense and targeted communication. Since September 11, 2001, terrorist attacks, the government of the United States has had to change the way the public receives information. Informational changes were through the police, emergency medical personnel, and security firms. The new network system has to be consistent and effective in local counties in getting information and communication out to the public. This is the reason that all security, police, and other safety agencies must combine efforts, and update and have compatible technology.

Security and local police are the front line defense in a society that is open, based on commerce, and in which people move unpredictably and freely. No one will forget that in the 9/11 attacks, the radios of the police officers were not functional and signals were lost due to the communication towers not transmitting signals. Security teams can provide a gap in communications being lost by being the go-between foot runners. The security in any emergency can be tied into the police systems that relay vital information, but as of today, this has not occurred on a wide scale (Commission on Peace Officer Standards and Training, 2010). It is not well known the extent of communication between municipal security and police officers and their agencies in Tulare and Fresno counties since September 11, 2001. There have not been many extensive studies of communication between these two public safety agencies in Fresno and Tulare counties and the proximity of the two counties is only 55 miles.

Hummer and Nalla (2003) research paper has stated that few studies have examined the nature of security and police relations to date. Smith

and Messina (2004), stated “studies in the security field and their communication systems are relatively new,” (p. 35). For the first time in history, security personnel are considered first responders, or titled other emergency crews. A first responder example was when the swift intervention of Securitas/Pinkerton security officers during the 9/11 Twin Towers attack in New York. The security officers were able to communicate to police the emergency conditions. Not one Securitas/Pinkerton security officer was injured but, the officers saved many lives and controlled traffic until more first responders arrived.

The difference between security and police is legislative police powers, perceptions of the public and the pay scale. Job performance and objectives of both police and security personnel are to show positive influence, prevent crime through powers of arrest, loss prevention, and develop crime prevention strategies, through communication, and procedures (Commission on Peace Officer Standards and Training, 2010).

Grabosky’s (2007) research paper stated that dramatic changes will continue to evolve between now and the year 2026 regarding the communication processes pertaining to security and public policing. Security has become a growth industry of the 21st century. The rise of the private security industry is three security officers for every one municipal policer and this ratio has become apparent by the mid-1980s (Grabosky, 2007). Private security services are one of the largest industries that have consistently advanced. Since the events of post-9/11, it has been proven that public law enforcement agencies cannot operate economically without the contribution of the private law enforcement sector.

FRESNO AND VISALIA, CALIFORNIA

In 2010, Fresno County law enforcement agencies included the Fresno police department with Jerry Dyer as Chief and 806 sworn police officers. The

Fresno County also included the Fresno County Department Sheriff’s Office with Sheriff Margaret Mims. Fresno County had a population of 495,913 177,547 and a territory of 1,116,000 square miles (Commission on Peace Officer Standards and Training, 2010). Sheriff Margaret Mims’ main responsibilities in 2014 were to oversee the police patrolling of unincorporated county areas that include also San Joaquin area, the Traffic Division, the court security and the local city and county jails.

Tulare County has the highest methamphetamine production and distribution in California, resulting in higher crime rates and the need for more police and security (Commission on Peace Officer Standards and Training, 2010). This is one of many reasons that the police and security need to communicate between each other and combine efforts in tackling crime. Table 1 indicates between the years 2007 and 2008, there was an increased need for security and police communications due to lack of education, increasing household size, and the inflation rate. Table 2 indicates the crime rates in Visalia between the years of 2007 and 2008.

Table 1 *Demographics; City of A, California, 2007-2008*

Average Household Size	3.05
Inflation	9.05%
Under eighth-grade education	22%

Note. Data is from City of A [California] Police Department (2009). *Area demographics*

The police in Fresno average one officer for every 4,340 persons (City of Fresno Economic Development Department, 2009). This was not much of an improvement of police ratios, comparing the cities of Visalia and Fresno. The differences in demographics of any neigh-

borhood dictate procedural differences. The demographics of criminal activities and other emergencies will grow in regards to trends, e.g., lack of economic opportunities and an increase in a diverse population (City of Fresno Economic Development Department, 2009). Fresno is the sixth largest city in the state of California and centrally located, is the financial, industrial, trade, and commercial capital in the Central San Joaquin Valley (City of Fresno Economic Development Department, 2009).

Table 2: *Crime Statistics; City of A, California, 2007-2008*

<u>2007 Statistics (compared from 2006)</u>	
6% population increase	
5% calls for service increase	
1% arrest increase	
0.7-minute average call response time decrease	
17% crime decrease	
8% crimes against persons decrease	
19% crimes against property decrease	
<u>2008 Statistics</u>	
Cases investigated:	1,168
Court appearances:	56
Expulsion hearings:	122
Field interview cards:	189
Gang-related crimes:	121
Home visits:	285
Juvenile arrests:	641
Student contacts:	4,418
Traffic/parking citations:	68

Note. Data is from City of A [California] Police Department (2009). *Area demographics*

The police department is also known for shedding of services such as monitoring, alarm service and patrol services (Fixler & Poole, 1999). Many businesses, private entities, and governments are leaving security companies with the responsibility

of contracting private security officers to monitor alarms. Majority of citizens and business agencies are opponents of police shedding its services to the private sector. Shedding of services to the private sector, in essence, protects the American way of life. Shedding of services ensures that services to the general population occur in an effective, safe, and economical manner while still providing police services (Fixler & Poole, 1999).

NATIONAL COMMUNICATION

According to *The 9/11 Commission Report* (National Commission on Terrorist Attacks Upon the United States, 2004), over 2,000 interviews, ten countries, 19 days of hearings, and 160 individual witnesses found no combined communication in many of the agencies. The report also concluded too late communications and no warnings between individuals and agencies of impending terrorism. In addition, controllers were asleep; no chain of command lists were kept of the many agencies used and no chain of command for communications. The controllers also had lack of proper equipment, lack of equipment interoperability, and/or equipment unavailable or were unusable. During the terrorists attack at the Logan Airport in Boston, Massachusetts, screeners did not resolve any alarms going off because of inattentiveness, lack of communication, loss of communication, and misinterpreted communication.

The number of private security officers expanding to Tulare and Fresno counties as seen in the California Department of Consumer Affairs Bureau of Security and Investigative Services (2010), research that security outnumber police 5 to 1. There were 4,956 uniformed security officers in 2010 (California Bureau of Investigative Services, 2010), this does not include other personnel such a bounty hunters, managers, and supporting staff.

Communication between these two law enforcement entities is imperative. The number of private security officers is expanding throughout the counties in Tulare and Fresno. Both public and private law enforcement personnel have seen an increase in daily workloads which is reflected in the following statements by Police Officer Ralph and Security Officers Christine and Emma:

I think it depends on the security agency. There are some security agencies like the one downtown; that we trust and work with almost as partners. Then there are other agencies that we don't trust enough to even tell them anything because of the people they hire. It depends on the agency and how professional they are. For example we have some officers have retired and now work for the some of the agencies and we have good communication with them. (Police Officer Ralph)

The police are more responsive once they are on the scene with security and see what we go through at that particular moment they are more responsive and they try to be less biased but, you can tell that in their communications and physical stance that they are not happy. When we call them it seems we are interfering with their regular patrols or something like that knowing we have an important legitimate crime going on or had been going on. (Security Officer Christine)

Some are and some are not [biased], those that are less biased we have great communication because we cannot take any situation lightly. . . . Post 9/11, you have to be diligent and fast on your feet and some see you as just rent-a-cops. (Security Officer Emma).

We need to identify a clear distinction between the Introduction and Lit Review.

The introduction section would include the section of "Introduction, Problem Statement and Research questions section. For the Literature review section we want to include what is most important

METHODOLOGY

The purpose of this study was to investigate and explore the communication relationships of law enforcement since the September 11, 2001, terrorist tragedy. This study contained a population of convenience sampling that included 14 security and police officers. Convenience sampling was used based on easy availability and/or accessibility of the officers. Participants provided communication pertaining to rules and regulations surrounding the interactions of communication styles from patrol owner operators, security officers, and municipal police officers in Tulare and Fresno. The study used one centralized, municipal police agency as a representative in each county and a security company, which spanned both counties. The researcher had open-ended interviews and obtained documents on the subject of communication between the two cultures.

The researcher chose a qualitative phenomenological approach (Trochim, 2001). Multiple sources of data (i.e., in-depth interviews and a questionnaire) were used to gain the perspectives of officers. The narratives derived from interviews, and a 24-item questionnaire provided an in-depth understanding of the emerging experiences of officers. An open-ended protocol of 24 questions with probes had been developed by the researcher for the interviews. The interview process lasted from 30 minutes to one hour based on the officers' responses and the researcher's probing for additional information and clarification.

Questions were not limited to this list; however, a phenomenological perspective was used to structure the interviews.

The researcher examined the issue of public and private law enforcement communications and their day-to-day operations and relationships between the two in their natural settings. The researcher obtained a letter of permission for officers to participate in the study from the administrative head of each police and security organization. The participants contacted the researcher directly, either by phone or e-mail. Each participant was given a pseudonym. The study excluded personnel whom have career cross-contamination of police officers that are moonlighting as security officers.

DATA COLLECTION

The private security sample was drawn from a contract security agency and its security officers that span both counties of Fresno and Tulare. To participate in this study, specific requirements were important. Study participants were selected based on current employment in law enforcement, which communicated laterally with two types of law enforcement personnel: Security officers and municipal police officers. All participating officers worked full time, over the age of 21, and spoke English as their main language. All study participants consented to participate in the study and agreed to all interviews being audio-taped. Officers who met the criteria and provided consent were considered for the study. Each participant was given a pseudonym.

The interview questions consisted of three sections: Section 1, Demographics; Section 2, Types of Interaction; and Section 3, Scope of Interaction. The interview questions assessed the attitudes and feelings of being public or private law enforcement officer. The officers also were able to show their unique communication styles and responses from other agencies. The researcher ensured that the participants understood that their participation was

voluntary and their responses remained anonymous and confidential.

DATA ANALYSIS

The research examined how public and private law enforcement constructed standards, viewpoints, and defined terminologies from the officers' own perspectives. The study's interviews have been transcribed verbatim excluding repetitive themes and attempt to reproduce as much as possible the speakers' actual words and narratives. Interviews were between 30 minutes to an hour in length. The disadvantage to this sample was that it excluded officers that were absent or not full-time employed by that agency. Qualification in the sample selection was that the participants had direct communication contact with other private or public municipal agencies.

The analysis in the research study involved open-coding, categorizing, and identifying overall themes present in the data with no pre-conceived expectations (Berg, 2007; Trochim, 2001). The interviews were derived from interview questions; notes handwritten, index cards and including cassette recorder. Interviews were to elicit the officers' personal and professional communication styles and circumstances including descriptions of daily job-related events and activities. In the present study, 95 percent of the participants were male and 80 percent were college graduates or current students. The themes were based on communication equipment, communication interaction, training and future trends to improve interactions as discussed below.

THEME 1: COMMUNICATION EQUIPMENT

Participants' communications, perceptions, and experiences emerged during the interviews. Overwhelmingly, officers were concerned with communications between security and police and the future relationships between agencies.

Theme 1 included four of 14 officers and the viewpoints of participants regarding communication equipment.

The Visalia and Fresno police use mobile dispatch terminals in both Tulare and Fresno. Modern mobile dispatch terminals have two data functions and connections. A connection to the dispatch operator is called a *computer-aided dispatch system*. This system is also connected to the criminal records databases that many police departments have. Computer-aided dispatch connections and security protocol is department/ agency defined (City of Visalia Police Department, 2013). The communications equipment the security officer's use is mobile radios, cell phones, and landline telephones. All six of the security officers stated during the interviews that the only equipment they have available are a handheld radio as well as a radio in a car, texting or calling on the cell phone.

The Visalia Police Department's Communications Unit is currently staffed with one communications supervisor, 23 full-time communications operators and hourly call takers who answer and process seven emergency call 9-1-1 lines, 15 non-emergency lines, and several radio frequencies. The Communications Center is open 24 hours each day, 365 days each year (City of Visalia Police Department, 2013).

Because of the incidents of 9/11 and other post-9/11 catastrophes, Federal Emergency Management Agency is now not mandating but, suggesting for agencies to go to Clear Text. Fresno and Tulare police are discussing and going to a pseudo/hybrid Clear Text right now, but they are still relying heavily on 10-codes. Tulare and Fresno police agencies are training their police officers to use Clear Text, and many of the old codes are being phased out. The police radio technician can now program their radios to receive all agency channels except the California Highway Patrol. The police are trying to not use codes and would not use codes because it would cause confusion. Each area has its

own 10-codes. Instead of codes, Tulare and Fresno police have gone to using Clear Text; this way, one can say what is going on over the air rather than using a code.

With security communications, upgrading the radios would be the security officers' first priority in addition to the cell phone upgrades and have more communication with police. Security officers need to have their equipment reviewed and upgraded and repaired and check at every site at a minimum of every three months unless a security officer requests before then if communication and equipment needs repair.

The six security officers interviewed stated that the Security officers' equipment are upgraded once a year and with cell phones that have a broader range of communications such as more minutes and wider signal. The security companies do check the security officers' equipment on site if and when a security officer reports equipment malfunction or other equipment issues that occur as stated by the six security officers interviewed.

THEME 2: COMMUNICATION INTERACTIONS AND TRAINING

Theme 2 included nine of 14 officers being interviewed regarding communication, interactions, and training. Police do not think communications between security and police has really changed that much since 9/11 as far as improving (City of Visalia Police Department, 2013). Improving communication varies department to department and the security company to the security company and how well the police work with security agencies.

Communications have improved one-on-one between the officer and the security officer according to police officer Sam. There is no joint training between security officers and police officers. Of late, security agencies are

using Clear Text to communicate as opposed to traditional code language used by police agencies. The intent of Clear Text is to phase out the usage of codes during communication which causes confusion during transmission (City of Visalia Police Department, 2013).

The security officer now has the ability to have radios connected to police channels. Currently, police and security officers are having more interactions.

Police are more receptive towards the security officer knowing that the security officer does a lot more work and prevention in security post-9/11 and the security officers' danger has increased as well. The security officer is now able to use the Internet to contact the police. Participants described their worse communication experiences when the radios do not have a strong communication signal. Although, police radios can be set up to have a different repeaters, repeaters and towers can also cause bad signals, no signals or static in a particular area. The police officers will not know that their radios are set to a wrong repeater until after an incident or while trying to use their radios in an incident. Wrong repeaters and the inability to get a signal from a communication tower can also happen to security radios (City of Visalia Police Department, 2013).

Communication towers often especially in the rural areas and mountains do not give a strong signal or no signal. This is when police would have to turn to their cell phone service. Security officers have used their personal cell phones for communication due to not having the proper communication devices as do the police. Old equipment is an issue as described by the eight police officers interviewed. As stated by a Visalia Police Officer, "that once you get out of range of Visalia, you would not be able to pick anybody up on the old radios" (City of Visalia Police Department, 2013). So the police would have to terminate whatever they were doing unless that officer was on a cell phone. The other issue is when

there are too many dispatchers (one for security and one for police) relaying for security officers and are unable to get accurate or timely assistance. By the time the police officer receives the information; the security officer may or may not be at the same location.

There are more updates available to security such as the Internet, more cell phone usage to the police department and even texting. The police and security agencies and their officers can type in messages to the police department and police to security companies. The six security officers also expressed the need to be able to have a direct e-mail to police and a way of contacting them directly without going through an emergency 9-1-1 operator. That would seem to be the faster way of communicating with the police and a more a direct route.

THEME 3: FUTURE TRENDS TO IMPROVE INTERACTIONS

Theme 3 included ten of 14 officers and their viewpoints regarding future trends and improved interactions. The most important thing the police officer participants have learned in the last 10 years of study and practice is that most police officers have had an egotistical view about police work as opposed to security work. Someone who is egotistical has incredibly high confidence in themselves.

As years pass, public and the police officers themselves realize that the security officers are just trying to make money, pay bills, and better society, too. Some of them wanted to be police officers and for whatever reason did not make it; they are living out a dream. The security officers put themselves in positions were they could get hurt and for very little money, as stated by Police Officer Aaron: "I can't tell you how many times I have been downtown dealing

with a drunk in a fight, and when I turn to my right, there is a security guard helping me out."

As with any group you have persons whom do not agree with the majority. There are still police officers that do not have a positive view of private law enforcement, the companies whom hire police officers and the security officer themselves. With undue bias the researcher must also provide the opportunity for these police officers to share their opinions as well as stated by Police Officers Jessie, Bill, and Sam:

The interactions, but just overall the motivations between both are very different. Working more with [private investigators] is what I would say. Security guards do wear uniforms but the motivation is different, they do it for money, the owners of the company do it for money. That changes their focus to what we do because we aren't doing anything for money. The security company will bill for phone calls, consultations, investigations, they bill for practically everything, kind of like lawyers. So their motives are different than ours, we are not motivated by money. We are motivated by the context of the crime, the motivation for the crime and the probability of solving the case. It makes a big difference and we have seen that. (Police Officer Jessie)

Not to give out too much information to security, no trust. They are often connected with an apartment complex or someone but they do have a lot of information to give us. Security if given too much information can backfire on you if the person you are targeting gets tipped off by them. (Police Officer Sam)

The interviews with the six security officers revealed that they all wanted improved communications. The security officers interviewed

also wanted the opportunity to have training with the public police officer. Security officers also had some negativity towards police because of society and economics and have also changed their views as stated by Security Officer Christine:

The last ten years is having patience with police and has them understand where we come from as security that way we are their eyes and ears and we help them with our whole heart and we are not as biased. They seem to be because they act like they are better than us even though we are involved in the same situations and to the public a badge is a badge. We do not get high pay and medical and recognition when we get beat up or shot. (Security Officer Christine)

The cost of communication has significantly decreased and the local communities are just starting out looking into social media. More people are on computers and access to the Internet is for free at any local library. People are taking pictures on their cell phones and sending to the police and security agencies. The social media is going to be effective communications along with updated training with canines for security officers and interpersonal relationships between both law enforcements. Before, there were only the telephones to use for the majority of the public. Today, texting and reception of the digital environment is done off of a cell phone. Combining all communication equipment on the street for the police and security would be more cost-effective if the computer and cell, walkie-talkies, and phones were combined into one simple handheld unit (City of Fresno Police Department, 2012), (City of Visalia Police Department, 2013).

RESEARCH QUESTIONS

The objective of the research questions was to explain the evolving needs of communications between private and public law enforcement agencies. Overwhelmingly, majority of the officers were in law enforcement between two to 27 years. However, what was common among all participants were a desire for examining methods to combine training, better communications, equipment, and an increase in working together in various job aspects. Each participant appeared attentive during the interview process. When participants were not clear on a question, clarification was suggested by the participants. The 14 security and police officers that were interviewed were diligent in their final reviews of the interviews to ensure accuracy. Participants were given a copy of their interviews when requested.

The results of this study cannot be generalized for all individual officers in the United States. This study cannot be generalized due to the sample size and the type of sampling technique used. The researcher's objective in this study was to have a discussion with local law enforcement officers both public and private. The intent was to attempt to better understand what the officers experienced, their suggestions and perspectives of working together in a combined effort to protect society. There are significant amount of research in police sciences, with limited studies regarding professional communication between public and private law enforcement officers.

A goal of this study provided the lived experience of the daily work environment of officers of both public and private law enforcement agencies. There are many misperceptions about security and police officers as to who they are, what they do and how the officers of both public and private law enforcement communicate with each other in a working relationship (City of Fresno Police Department, 2012), (City of Visalia Police Department, 2013).

SUMMARY OF THEORETICAL PERSPECTIVE

In this study, *Social Contract Theory* (Gaines & Kappeler, 2003) was used as a theoretical lens to focus on the problem of public and private law enforcement officers' communications between agencies, equipment used, and how officers perceived their working relationships post-9/11 (Creswell, 2003). This qualitative phenomenological study provided an examination of communication between municipal police and private law enforcement agencies. Using the theoretical framework of the *social contract theory* (Gaines & Kappeler, 2003) allowed this research to investigate social constructs of communication and providing safety in society. Using the aspects of the *social contract theory* is an agreement, entered into by individuals, which result in the formation of the state or of organized society. The outcome of this study was consistent with *social contract theory* (Gaines & Kappeler, 2003) that supported this study.

Social contract theory (Gaines & Kappeler, 2003) is supported through taxes and laws. An example is the Department of Motor Vehicles license rules and regulations that protect the United States roads and highways by public law enforcement. This service is paid by societal tax that is, the United States government hires police (public law enforcement) on behalf of the social contract theory. Social contract theory is a philosophical agreement between a government political system and the people (Curran & Renzetti, 2001). It is very precise and is an agreement between the citizens of the United States and the federal government as the rules and regulations of the judicial system.

CONCLUSION

The purpose of this study was to investigate the impact of prior successful terrorist activities and the extent of communication barriers, and

equipment interoperability between public and private law enforcement agencies. The officers want to have a successful communication, equipment interoperability, and a better working relationship. There are obstacles preventing officers from success such as the legislative and constitutional limits, the media, and old communication equipment that is hindering the officers to communicate with each other as previously discussed. When this problem is solved, based on the responses there should be a significant reduction in biases and communication issues such as equipment interoperability, and other barriers.

This study has expanded on the limited literature on the many challenges that both the municipal police and security personnel have. The objective is to use what the officers are experiencing to develop policies or research as a catalyst to lack of communication. The National Commission on Terrorist Attacks upon the United States (2004) illustrated that there has been research conducted in practically every area and subset of law enforcement but not police and security in a joint effort. Job satisfaction among law enforcement personnel such as police officers, correctional officers, and so on has been well documented but again, not with private law enforcement security officer personnel.

Accordingly, Hummer and Nalla (2003) stated that the function in nature and social control has shifted from public to the private sector due to economics and the availability of law enforcement personnel. The research article has stated that few studies have examined the nature of security and police relations to date. The research gave a conceptual framework to understand the nature of the cooperative efforts of public and private law enforcement relationships in what is called the *laissez-faire* model.

The cryptic model complements the existing theoretical literature on police and security interactions involving adjoining interaction, sharing files and communications of criminal activity and co-training and schooling.

As stated by Smith and Messina (2004), “studies in the security fields and their communication systems are relatively new,” (p. 35). Collins et al. (2000) also pointed out that with the economy; money is tight in financing of safety programs. Regards to first responders a great need for updated networking technology is needed in locally and nationally. Grabosky (2007) stated that research is needed to utilize the private sector of law enforcement (security) and that a wider perspective towards optimizing security professionals in conjunction with public policing is a future trend. Security has become a growth industry of the twenty-first century therefore; municipal police needs to communicate with the public sector of law enforcement at all levels. The rise of the private security industry is a 5:1 ratio to municipal police and has this ratio has become apparent by the mid-1980s. Private security services are one of the largest industries that have consistent continued growth.

Not only is there a lack of literature on the challenges that both the municipal police and security personnel have in reporting and communicating with each other. There is minimal research of articles on communications between security officers and police officers or any other work-related issues. As indicated in the literature review, the field of both public law enforcement and particularly in private law enforcement has experienced rapid growth. Compared to other areas of law enforcement was due to intense media interest, increase in populations and crime. The participants in the study acknowledged that there are a few mentions in training manuals of security and police interactions. Many of the participants stated they had yet to see any in-depth research on the working relationships of security and police in communications and joint training.

This study has revealed cooperation, communication and respect of both public and private law enforcement officers is needed between each other to protect society and uphold the social contract. For example, law enforcement agencies and officials could consider commissioning a study on how to implement a program were both public and private officers could communicate and train together. This particular program would be similar to communications classes, safety classes and a class on the laws and regulations of both entities. However, review of existing research demonstrated research on the working relationships and communications between the two law enforcement entities is severely deficient. There are many possible reasons for the research deficiency in the area of law enforcement. One major reason for the deficiency could be lack of funding for research and funding for joint training.

These are major limiting factors because not being able to find funding to support research stifles the field. In order for the field of law enforcement to stay current, conducting research is a must in order for law enforcement disciplines to advance. It is strongly recommended that both public and private law enforcement organizations seek ways to obtain grants and other monies that will help advance continued research in communication and co-relationships between the security officer and the municipal police officer. Officers spend 70 percent of their time communicating (Spadanuta, 2013). Communications proficiency is especially critical with emergency or high-risk situations. Officers who cannot communicate cannot get assistance or equipment interoperability when it is needed or give assistance when someone else needs it. Communications can make or break a security officer or police officer, who must communicate a vast array of messages to a variety of different audiences (Spadanuta, 2013).

This research study showed the need for universal training in communications and equipment

interoperability between municipal police officers and security officers in Tulare and Fresno counties. The benefits to California will be job creations and improved communications. This study has addressed the need for first responders from multiple organizations to develop the capabilities for responding rapidly and effectively to a wide spectrum of emergent situations. This study has identified communicative and ownership barriers that hinder interior organizational cooperation. The purpose of this study was to investigate the impact of prior successful terrorist activities and the extent of communication barriers, and equipment interoperability between public and private law enforcement agencies.

REFERENCES

- Associated Press. (2012, August 12). *Cell towers to blame for loss of communication*. Retrieved from <http://hosted.ap.org/dynamic/fronts/HOME?SITE=AP&SECTION=>
- Berg, B. L. (2007). *Qualitative research methods for the social sciences* (6th ed.) Boston, MA: Pearson.
- California Department of Consumer Affairs Bureau of Security and Investigative Services Bureau of Investigative Services. (2010). <http://www.bsis.ca.gov/>. West Sacramento: Author.
- California Department of Consumer Affairs Bureau of Security and Investigative Services. (2012). <http://www.bsis.ca.gov/> West Sacramento: Author.
- City of Fresno [California] Economic Development Department. (2009). *U.S. Census Bureau, 2006-2008, American Community Survey*. Retrieved from <http://www.fresnobee.com:http://www.census.gov/acs/www/>
- City of Visalia [California] Police Department. (2013). *Communications; John Demarest, communications supervisor*. Retrieved from <http://www.vpd.ci.visalia.ca.us>
- Collins, P. A, Ricks, T. A., & Van Meter, C. W. (2000). *Principals of security and crime prevention* (4th ed.). Cincinnati, OH: Anderson.
- Commission on Peace Officer Standards and Training. (2010). Sacramento, CA: Author.
- Cooper, A. (2011, September 9). *360 Degrees: New terror threat; Unrest in Syria; Leader of Taliban sought; Children of 9/11 remember parents* [Transcript]. Retrieved from <http://transcripts.cnn.com/TRANSCRIPTS/1109/09/acd.02.html>
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approach* (2nd ed.). Thousand Oaks, CA: Sage.
- Cunningham, W. C., Strauchs, J. J., & Van Meter, C. W. (1991). *Private security: Patterns and trends*. Washington, DC: National Institute of Justice.
- Curran, D. J., & Renzetti, C. M. (2001). *Theories of crime* (2nd ed.). Upper Saddle River, NJ: Pearson Education.
- Fixler, P., & Poole, R. (1999). Can the police be privatized? In L. K. Gaines & G. W. Cordner (Eds.), *Policing perspectives: An anthology* (pp. 32–40). Los Angeles, CA: Roxbury.
- Gaines, L. K., & Kappeler, E. (2003). *Policing in America* (4th ed. ed.). Cincinnati, OH: Anderson.
- Grabosky, P. (2007). Security in the 21st century. *Security Journal*, 20(1), 9–11. doi:10.1057/palgrave.sj.8350036
- Hummer, D., & Nalla, M. K. (2003). Modeling future relationships between the private and public sectors of law enforcement. *Criminal Justice Studies*, 16(2), 87–96. doi:10.1080/0888431032000115628
- Manunta, G. (2007). Speculating on security as a field of study and practice. *Security Journal*, 20(1), 19–22. doi:10.1057/palgrave.sj.8350039
- Manzo, J. (2003). *How private security officers perceive themselves relative to police*. Alberta, Canada: The University of Calgary Department of Sociology.
- National Commission on Terrorist Attacks upon the United States. (2004). *The 9/11 Commission report*. New York, NY: W. W. Norton & Co.
- Poggi, G. (1972). *Essays on images of society: The sociological theories of Tocqueville, Marx, and Durkheim*. Stanford, CA: Stanford University Press. innovative-emergency.html
- Smith, N., & Messina, L. M. (2004). *Homeland security* (Vol. 76, No. 1). New York, NY: H. W. Wilson.
- Social contract theory. (2003). In *Collins English dictionary—Complete and unabridged*.
- Spadanuta, L. (2013). Communications upgrade. *Security Management Magazine*. Retrieved from <http://www.securitymanagement.com/articles>

- Trochim, W. M. K. (2001). *The research methods knowledge base* (2nd ed.). Cincinnati, OH: Atomic Dog. http://beta.census.gov/newsroom/releases/archives/american_community_survey_acs/cb09-cn21.html
- Tulare County [California] Sheriff. (2009). *Information Center*. Visalia, CA: Author.
- U.S. Census Bureau. (2008). *U.S. Census Bureau, 2006-2008, American Community Survey*. Retrieved from http://www.dhs.gov/xlibrary/assets/Physical_Strategy.pdf
- U.S. Department of Homeland Security. (2003). *Homeland security: Public health and safety*. Retrieved from http://www.dhs.gov/xlibrary/assets/Physical_Strategy.pdf

A METHODOLOGY TO STATISTICALLY ANALYZE CRITICAL RACE THEORY OUTCOMES FOR LEADERSHIP STUDIES:

TRICHOTOMY–SQUARED—A NOVEL MIXED METHODS TEST AND RESEARCH PROCEDURE DESIGNED TO TRANSFORM QUALITATIVE DATA INTO QUANTITATIVE OUTCOMES FOR EDUCATORS, PRACTITIONERS, TECHNOLOGISTS, AND SOCIAL AND BEHAVIORAL SCIENTISTS

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Abstract: This research paper provides an overview of a new and innovative research methodology that incorporates, infuses, and integrates the best of qualitative and quantitative analysis and combines them into a dynamic investigative strategy that can be used as a best practice model for in-depth investigative CRT research for Leadership Studies.

Keywords: Analysis, Critical Race Theory, Effect Size, Event Sampling, Leadership Studies, Outcomes, Qualitative, Quantitative, Research, Statistics, Table, Trichotomy, and Tri-Squared

INTRODUCTION

In the course of human events, it is through the propensity of necessity that the scholarly mind must often observe the profound ramifications of man-made societies' inherent prejudices that pit man against man. This iniquity may manifest itself in society as vicious acts that are the outcomes and indeed the atrocious offspring of racial oppression and aggression. These iniquitous deeds are observed, recorded, reported, and documented by the academic discipline called, "Critical Race Theory".

For Critical Race Theory (or CRT as it is more commonly referred) to grow, gain notice, and have weight in various academic circles (and in academia in general), its outcomes (often recorded) as qualitative data must be made quantifiable. This is essential in overcoming the resistance that Critical Race Theory has faced. CRT is often considered an offensive rhetoric or an antithetical polemic by the very system and sub-systems which it innately critiques and

ultimately challenges. Indeed, this mindset is predicated upon and supported thereof by a lack of concern and comprehension of the role that CRT plays in addressing the interplay of social norms with the integration of various forms of ethnic superiority juxtaposed with racial inferiority. It is the combination of these social aberrations that both effect and affect contemporary society as a whole. By its nature, research scholarship places a great deal of emphasis and value on research investigations that are undergirded by quantifiable data. Thus, it is in the best interests of the Critical Race Theorist or CRT scholar to have a quantitative data analytic that is grounded in both a sound statistical methodology and a fundamental research design. This can provide dynamic academic merit and added mathematical value to the reported results of their research. As a solution to the aforementioned premise, the author provides a detailed exposition on the Total Transitive Trichotomy Squared or Tri-Squared Test as a novel and ideal means of conducting in-depth CRT research. Through Tri-Squared Tests, inquiry, and investigations CRT Academics have a research methodology that transforms qualitative data input into quantitative data output for the purposes of determining the overall outcome and effectiveness of CRT research.

LEADERSHIP STUDIES

The field of study that focuses on guidance and authority in organizational contexts is referred to as "Leadership Studies". Leadership Studies is multidisciplinary and has its origins in a group of

diverse of fields of learning such as: the social sciences (which includes the respective fields of anthropology, psychology, and sociology), the humanities (which includes the fields of history and philosophy), and in the professional and applied fields of management and education. As a discipline, the field of Leadership Studies is linked to the field that examines how individuals construct organizational structures, processes, and practices referred to as “Organizational Studies”. There is a dearth of research on Critical Race Theory in the field of Leadership Studies. According to researcher Gerardo R. Lopez, “Although Critical Race Theory (CRT) originated in the legal arena, its influence has proliferated throughout the social sciences literature. Yet CRT has not spread significantly into the field of educational leadership, where the discourse on diversity has failed to penetrate the salience of racism in schooling (López, 2003).” The author offers the statistically-based Tri-Squared Test as a means of collecting and analyzing qualitative data and transforming it into quantitative data for the purposes of seamless data analysis to increase the amount of CRT research in Leadership Studies.

THE TRI-SQUARED TEST DATA ANALYSIS PROCEDURE

Transformative Transitive Trichotomy also called “Tri-Squared” is a holistic data analysis procedure that is somewhat similar to the Meta-Cognitive Analysis data analysis procedure that was developed by educational researchers Snell and Marsh. The investigative research rationales are similar in that each seeks to provide an in-depth research investigation methodology that best suits socio-behavioral scientists, education practitioners, and educational investigative researchers in particular. Traditional means of research are often too strict where human subjects are concerned. Traditional research models may also have requirements that do not fit or are direct

opposition to the legal requirements of educational institutions, practices, and/or organizations. These legal matters often supersede research needs. Therefore, Snell and Marsh’s rationale and argument provide meaning for innovative research systems such as Meta-Cognitive Analysis and Transformative Transitive Trichotomy. His intention was to provide an alternative research methodology to the more traditional Meta Analysis procedure that has a better fit for educational research. His answer was the new and innovative Meta-Cognitive Analysis procedure. Snell states, “Meta-Cognitive analysis recognizes that in the literature review on a particular topic, 1. Numerous samples of varying randomness will be used, 2. Various research designs will be maintained, 3. Different statistical tests will be used, 4. Outcomes will be reported differently. 5. Nominal, ordinal, internal and ratio numbers will be mixed together. However, the results will be cognitively assessed as in content analysis” (Snell & Marsh, 2003).

Snell and Marsh go on to further state, “In our procedure (Meta-Cognitive Analysis), we first look to see if there is any particular bias or prejudice. If so, we stratify and leave them out. Second, if a study is methodologically flawed but somehow gets published, we do not include the study. Third, some studies have no difference in their findings and are published in less prestigious journals; we most surely want to report those findings” (Snell & Marsh, 2003). Chi-Square is essentially a nominal test. Thus, nuances and discretion afforded by more robust, hard number oriented analysis used in Meta-analysis is lost (Snell & Marsh, 2003). On the other hand, the leveling and homogenizing of data that is suspect to some researchers who question Meta-analysis is not a salient issue in our method. In our example, when we are comparing the efficacy of a particular antidepressant, we calculate by using a Chi-Square formula found in any elementary statistics books. It is $\chi^2 = \sum (\text{observed} - \text{expected})^{\text{squared}} / \text{expected}$ (Slavin, 1992). Similar to Snell’s investigative research conclusions the author found that the rigorous application of the

mathematical Law of Trichotomy, use of Trichotomous Variation to determine Statistical Effect Size, implementation of Event Sampling Methodology (ESM), and rigorous mathematical calculations to determine the Tri-Square Distribution yielded ideal procedures for conducting holistic and comprehensive research design methodologies for in-depth research investigations that are adaptable, authentic (valid and reliable), and applicable as a research procedure.

THE TERM TRICHOTOMY DEFINED

The term “Trichotomy”: is pronounced [‘trahy-kot-uh-mee’], and spelled “tri·chot·o·my.” A noun, its plural written form is “tri·chot·o·mies”. “Trichotomy” has the following threefold definition: (1.) Separation or division into three distinct parts, kinds, groups, units, etc.; (2.) Subdivision or classification of some whole into equal sections of three or trifold segmentation; and (3.) Categorization or division into three mutually exclusive, opposed, or contradictory groups, for example – “A trichotomy between thought, emotions, and action.” (Osler, 2012).

THE THREE STEP TRICHOTOMY SQUARED [OR “TRI-SQUARED”] RESEARCH DESIGN METHODOLOGY

Step One:

The design of an Inventive Investigative Instrument that has Trichotomous Categorical Variables and Trichotomous Outcome Variables that are the primary research questions under investigation;

Step Two:

The use of Event Sampling Methodology as the primary sampling Investigative Selection Procedure which is ideal for conducting studies in classrooms or social behavioral conditions that limit or are barriers to traditional statistical selection procedures; and

Step Three:

Use the Tri-Squared Test as the Data Analysis Procedure and report the final research outcomes.

EVENT SAMPLING METHODOLOGY (ESM) DEFINED

Event Sampling Methodology (ESM) also known as Experience Sampling Methodology is a novel sampling methodology that allows researchers to study the ongoing experiences and readily accessible events that vary across and within days in its naturally-occurring environment. The popularity of ESM as a new form of research design has rapidly increased over the recent years because it addresses the shortcomings of the more traditional cross-sectional research designs that populate research investigations. Researchers can now detect and draw research data from particular situations and examine in detail the intra-individual variances in particular researchable situations across time. ESM allows researchers to derive qualitative data from research participants in the form of personal documentation that records their individual experiences, reflections, and perceptions. There are three types of Event Sampling Methodologies. They are listed as follows:

1. Signal Contingent ESM—This type of ESM includes electronics to record data from research participants. A random beeping from an electronic device is used to notify research participants to record qualitative data. This type of ESM minimizes recall bias;
2. Event Contingent ESM – This type of ESM records qualitative data when certain events occur; and
3. Interval Contingent ESM – This type of ESM records qualitative data after a certain period of time has taken place (Osler, 2012).

An Example of the Tri-Squared Research Design Methodology in Action

Tri-Squared is used in this example to analyze the Three Domains of Learning: Cognitive, Affective,

and Psychomotor. The mathematical hypotheses are first provided using a two-tailed model which is ideal for determining the existence or non-existence of quantitative data changes. A sample Tri-Squared Test 3 by 3 qualitative data

table follows to demonstrate how data would be reported and displayed prior to its quantitative conversion to determine the hypothesis testing calculated Tri-Squared value (which would be used versus the Tri-Squared critical value to determine the validity of rejecting H_0).

A SAMPLE OF TWO-TAILED TRI-SQUARED MATHEMATICAL HYPOTHESES:

$$H_0: Tri^2 = 0$$

$$H_1: Tri^2 \neq 0$$

The Standard 3x3 Tri-Squared Table follows high-lighting sample qualitative input values and the outcome of a sample Tri-Squared Test. This is followed by a Table highlighting the qualitative to quantitative data Tri-Squared transformation methodology (this Table is provided to clearly illustrate the process used to transform qualitative data into quantitative data via the Tri-Squared mathematical calculation). It is important to note that Tri-Squared is a fixed or static Test with a fixed or set distribution. Thus, there must always be three mutually exclusive Trichotomous Categorical Variables and three distinctive Trichotomous Outcome Variables under investigation to effectively and accurately use the Test.

Tri-Squared Qualitative Outcomes [Tri]: A Sample Tri-Squared Test Illustrating The Standard 3 x 3 Trichotomy-Squared Formula and Table of Outcomes Reporting Qualitative Input Results Using the Tri-Squared 3 x 3 Format

Sample Data Analyzed Using the Trichotomous T-Square Three by Three Table designed to analyze the research questions from an Inventive Investigative Instrument with the following Trichotomous Categorical Variables: a_1 = Cognitive [Knowledge]; a_2 = Affective [Dispositions]; and a_3 = Psychomotor [Skills]. The 3 x 3 Table has the following Trichotomous Outcome Variables: b_1 = Affirmative [Yes]; b_2 = Negative [No]; and b_3 = Inapplicable [or Irrelevant]. The Inputted Qualitative Results are reported as follows:

$$n_{Tri} = 51$$

$$\alpha = 0.10$$

		TRICHOTOMOUS CATEGORICAL VARIABLES			
		a_1	a_2	a_3	
TRICHOTOMOUS OUTCOME VARIABLES	b_1	48	43	38	= Tr_1
	b_2	2	4	5	= Tr_2
	b_3	1	4	8	= Tr_3
		Tc_1	Tc_1	Tc_1	= T_{Tri}
		$= [C - 1][R - 1] = [3 - 1][3 - 1] = 4 =$			

Note: When reporting the outcomes of the Tri-Squared Test the Row and Column Totals are not presented. They are displayed in the Standard 3 x 3 Table for the purposes calculation clarity.

The Tri-Square Test Formula for the Transformation of Trichotomous Qualitative Outcomes into Trichotomous Quantitative Outcomes to Determine the Validity of the Research Hypothesis:

$$Degrees\ of\ Freedom\ (d.f.)\ for\ Tri-Squared: [R - 1][C - 1] = [3 - 1][3 - 1] = 4 =$$

Tri^2 Critical Value Table = 8.180 (with $d.f. = 4$ at $\alpha = 0.10$). For $d.f. = 4$, the Critical Value for $p > 0.10$ is 7.779. The calculated Chi-Square value is 8.180, thus we can reject the null hypothesis (H_0) by virtue of the hypothesis test which yields the following: Critical Value of 7.779 < 8.180 the Calculated Value.

Tri-Squared Quantitative Outcomes [Tri_y]: A Sample Tri-Squared Test Illustrating The Standard 3×3 Trichotomy-Squared Formula and Table of Outcomes Reporting The Methodology Used to Calculate Quantitative Outcome Results Using the Tri-Squared 3×3 Format

Sample Data Analyzed Using the Trichotomous T-Square Three by Three Table designed to analyze the research questions from an Inventive Investigative Instrument with the following Trichotomous Categorical Variables: a_1 = Cognitive [Knowledge]; a_2 = Affective [Dispositions]; and a_3 = Psychomotor [Skills]. The 3×3 Table has the following Trichotomous Outcome Variables: b_1 = Affirmative [Yes]; b_2 = Negative [No]; and b_3 = Inapplicable [or Irrelevant]. The Outputted Quantitative Outcomes are determined as follows:

$n_{Tri} = 51$

$\alpha = 0.10$

TRICHOTOMOUS
OUTCOME
VARIABLES

TRICHOTOMOUS
CATEGORICAL VARIABLES

	a_1	a_2	a_3
b_1	$a_1 b_1 =$	$a_2 b_1 =$	$a_3 b_1 =$
b_2	$a_1 b_2 =$	$a_2 b_2 =$	$a_3 b_2 =$
b_3	$a_1 b_3 =$	$a_2 b_3 =$	$a_3 b_3 =$

$= [C - 1][R - 1] = [3 - 1][3 - 1] = 4 =$

The Tri-Square Test Formula for the Transformation of Trichotomous Qualitative Outcomes into Trichotomous Quantitative Outcomes to Determine the Validity of the Research Hypothesis:

Degrees of Freedom (d.f.) for Tri-Squared: $[R - 1][C - 1] = [3 - 1][3 - 1] = 4 =$

The second Table is necessarily reported in the final data it is presented here only for the purposes calculation clarity.

The first Sample Tri-Squared Test 3×3 Table [Tri_x] illustrates the qualitative mathematical application and statistical analysis of the Trichotomous-Squared (“Trichotomy-Squared”, “Tri-Squared” or “Tri-Square”) procedure using sample data. “Tri-Squared” is the mathematical transformation of qualitative data into quantitative data for the purpose of validating a research hypothesis. The

application of the Trichotomous Transformation-Squared Test is similar to the Meta-Cognitive Analysis procedure. Thus, the mathematical calculation of Tri-Squared yields results parallel to the Chi distribution used in Meta-Cognitive Analysis. Therefore, Trichotomous-Squared Test uses the same distribution table as a traditional Chi-Square Test to determine the critical values necessary to establish a level of

significance in a hypothesis test. The mathematical formula for Trichotomous-Squared can be broken down into specific components or “elements” that illustrate the value of trichotomy. These same elements illustrate and validate the process of transforming qualitative data into quantitative data as a means of in-depth mixed methods for the purposes of discrete data analysis. To provide a clearer understanding of the Trichotomous Tri-Squared Test used in Transformative Transitive Trichotomy the following elements of the Tri-Squared formula are provided with their specific meanings:

= “Tri-Squared” (where, Tri = “Trichotomous”; “Trichotomy”; and is comprehensively defined as “Transformative Transitive Trichotomy”);
 = “The Total Summation of”;

[] = “The Concentration of”;

: = “The Ratio of”;

x = “Inputted Qualitative Outcome (Reported Results of the Inventive Investigative Instrument)”;

y = “Outputted Quantitative Outcome (Calculated Results Extrapolated from the Inputted

Qualitative Outcomes that Validate the Research Hypothesis)”;

= “Trichotomous Inputted Qualitative Values”;

= “Trichotomous Outputted Quantitative Values”;

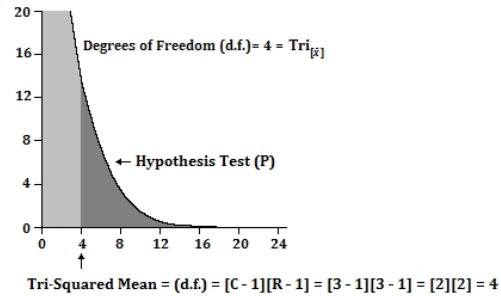
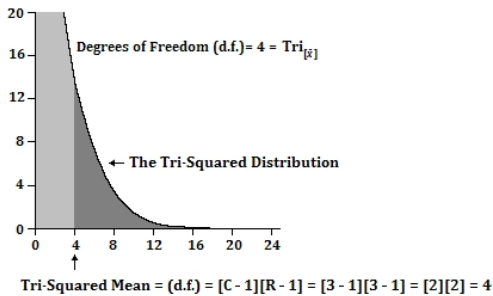
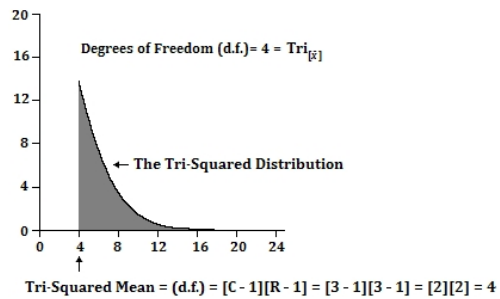
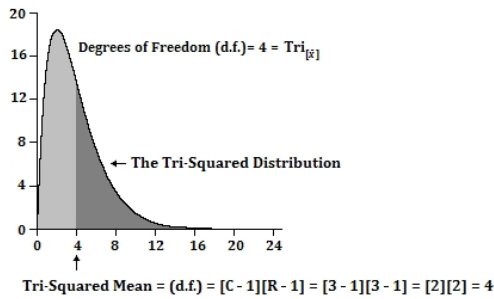
= The Total Number of Participants involved in the Research Study;

d.f. = The Degrees of Freedom associated with the Tri-Squared Formula: $[r - 1][c - 1]$;

C = Columns also indicated by “c”;

R = Rows also indicated by “r”.

The Tri-Squared Formula has the following Distribution Models:



Note: The dark gray area indicates the likelihood of accurately rejecting the Null Hypothesis.

The Tri-Squared Formula has the following Probability Distribution Tables:

Tri-Squared Probability Distribution Table											
Number of Research Participants Placed in Intervals Based off of Tri-Squared Effect Size Magnitude: [Small, Medium, or Large] is Based off of the Tri-Squared Mean = $[d.f.] = 4$											
Magnitude	Small Unit Intervals: Multiple of 1 = $4[4] = 4 \cdot 4 = 16$ Therefore, Interval has Increments of 16					Medium Unit Intervals: Multiple of 2 = $4[16] = 4[4 \cdot 4] = 64$ Therefore, Interval has Increments of 64			Large Unit Intervals: Multiple of 3 $4[4 \cdot 4 \cdot 4] = 4[64] = 256$		
Number of Participants	1– 16	17–33	34–40	41–57	58–74	75-139	140-204	205-269	270-526	527-783	784-1040+
Probability P(x)	0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001

The Tri-Squared Formula has the following Hypothesis Test, Alpha Level, Effect Size, and Sample Size Table:

Tri-Squared Distribution Table											
Displaying Primary Alpha Levels with Associated Critical Values for Hypothesis Tests											
α Level	0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001
$Tri_{[x]}^2 = d.f. = 4$	0.207	0.484	5.989	7.779	9.488	11.143	11.668	13.277	14.860	16.924	18.467
$Tri_{Eff}^2 =$ Effect Size	Small 4[4]	Small 4[4]	Small 4[4]	Small 4[4]	Small 4[4]	Medium 4[16]	Medium 4[16]	Medium 4[16]	Large 4[64]	Large 4[64]	Large 4[64]+
$Tri_{sm}^2 =$ Sample Size [Intervals]	1–16	17–33	34–40	41–57	58–74	75–139	140–204	205–269	270–526	527–783	784–1040+

The aforementioned definition of the Trichotomous-Squared formula provides the foundation for a more detailed definition of the mathematical formula which is: “Trichotomy-Squared is equal to the total summation of the concentrated ratio of trichotomous qualitative outcomes with transformed transitive trichotomous quantitative outcomes subtracted from trichotomous quantitative outcomes squared.” This can be simplified into”:

“Tri-Squared is the total concentrated sum of the ratio of the square of the difference between inputted qualitative outcomes and associated outputted quantitative outcomes” (Osler, 2012).

The sample Tri-Squared Data Table illustrates the input values from a sample Inventive Investigative Instrument. The table used the Tri-Squared Test in its standard Three by Three

Table to determine the outcomes of three research questions based on qualitative Trichotomous Categorical Variables identified as the Three Learning Domains which are: Cognitive, Affective, and Psychomotor. The Table separates the data into three distinct categorical areas: Affirmative, Negative, and Inapplicable. The vast majority of responses were overwhelming yes or positive as indicated in the Tri-Square Table first row on responses. As a result the research participants for the most part agreed that the Three Learning Domains were highly affective. This outcome is supported by the final results of the Tri-Square analysis which yielded the following: critical χ^2 value of $7.779 < 71.57$ the calculated Tri^2 value. The research Null Hypothesis can thus be rejected and it can be stated that Three Learning Domains do have an overall positive effect.

Tri-Squared Effect Size Formula is as follows:

Where,

The Standard Deviation of the Tri-Squared Table Columns;

and

The Standard Deviation of the Tri-Squared Table Rows

The Effect Size Table for the Tri-Squared Effect Size Formula is as follows:

Tri-Squared Effect Size	Tri2Eff
Small	0.10
Medium	0.30
Large	0.50

The Tri-Squared Effect Size Formula has the following defined elements:

“The Tri-Squared Effect Size for the Standard Tri-Squared Table = 0.125”;

[] = “The Concentration of”;

: = “The Ratio of”;

“The Total Number of Cells in the Standard Tri-Squared Table = 9”;

C = “Columns in order of Trichotomous Placement in the Standard Tri-Squared Table =

$$C_1, C_2, C_3”;$$

R = “Rows in order of Trichotomous Placement in the Standard Tri-Squared Table =

$$R_1, R_2, R_3”;$$

“Total of Columns in order of Trichotomous Placement in the Standard Tri-Squared Table = $C_1 + C_2 + C_3 = 1 + 2 + 3 = 6$ ”;

“Total of Rows in order of Trichotomous Placement in the Standard Tri-Squared Table = $R_1 + R_2 + R_3 = 1 + 2 + 3 = 6$ ”;

“Total of Columns \times Rows in order of Trichotomous Placement in the Standard Tri-Squared Table = $[C_1 R_1] + [C_2 R_2] + [C_3 R_3] = 1 + 4 + 9 = 14$ ”;

“Total of Columns Squared in order of Trichotomous Placement in the Standard Tri-Squared Table = $C_1^2 + C_2^2 + C_3^2 = 1 + 4 + 9 = 14$ ”;

“Total of Rows Squared in order of Trichotomous Placement in the Standard Tri-Squared Table = $R_1^2 + R_2^2 + R_3^2 = 1 + 4 + 9 = 14$ ”;

“The Standard Deviation of the Tri-Squared Columns = 3.16”;

and

“The Standard Deviation of the Tri-Squared Rows = 3.16”.

Thus, the outcome of the Tri-Squared Effect Size on the Tri-Squared Effect Size Table is written as follows:

Tri-Squared Effect Size	Tri2Eff
Small	0.10
Medium	0.30
Large	0.50

The result of the Tri-Squared Effect Size for the Standard Tri-Squared Table is calculated to be 0.125. This means that an alpha level of 0.10 is the standard for Tri-Squared hypothesis testing for a research investigation designed to have a small

sample size (specifically identified as 41 to 57 participants for $\alpha = 0.10$). This is further

illustrated in the following Tri-Squared Distribution Tables.

Tri-Squared Probability Distribution Table											
Number of Research Participants Placed in Intervals Based off of Tri-Squared Effect Size Magnitude: [Small, Medium, or Large] is Based off of the Tri-Squared Mean = $[d.f.] = 4$											
Magnitude	Small Unit Intervals: Multiple of 1 = $4[4] = 4 \cdot 4 = 16$ Therefore, Interval has Increments of 16					Medium Unit Intervals: Multiple of 2 = $4[16] = 4[4 \cdot 4] = 64$ Therefore, Interval has Increments of 64			Large Unit Intervals: Multiple of 3 $4[4 \cdot 4 \cdot 4] = 4[64] = 256$		
	Number of Participants	1–16	17–33	34–40	41–57	58–74	75–139	140–204	205–269	270–526	527–783
Probability P(x)	0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001

Thus,

Tri-Squared Distribution Table											
Displaying Primary Alpha Levels with Associated Critical Values for Hypothesis Tests											
α Level	0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001
$Tri_{[x]}^2 = d.f. = 4$	0.207	0.484	5.989	7.779	9.488	11.143	11.668	13.277	14.860	16.924	18.467
$Tri_{Eff}^2 =$ Effect Size	Small 4[4]	Small 4[4]	Small 4[4]	Small 4[4]	Small 4[4]	Medium 4[16]	Medium 4[16]	Medium 4[16]	Large 4[64]	Large 4[64]	Large 4[64]+
$Tri_{Sm}^2 =$ Sample Size [Intervals]	1–16	17–33	34–40	41–57	58–74	75–139	140–204	205–269	270–526	527–783	784–1040+

SUMMARY

The Tri-Squared Research Design Methodology is a universal investigative procedure that is ideal way examining the unique, diverse, and many times small educational and social behavioral settings that are a part of education and the social behavioral sciences. The methodology allows the researcher to use quantitative and qualitative methods simultaneously and incorporate them both into a reporting method that specifically aligns with their hypotheses, research questions and categorical variables. This method of statistical analysis resolves the age old issue of choice between a qualitative or quantitative research

design by seamlessly combining the two for maximized statistical power. It also provides Educators; Practitioners; Technologists; and all Social and Behavioral Scientists with an in-depth tool that is purely objective, extremely reliable, and very valid. All of the latter are critical components for the acceptance of novel research in the academy and value of investigative research individual academic disciplines. The use of Tri-Squared enables and empowers twenty-first century researchers who are seeking statistical tools that validate their research and enable them to show the value of analyzing small groups, sample sizes, and individuals without sacrificing the value of the research due to the uniqueness of the environment under examination.

REFERENCES

- López, G. R. (2003). The (Racially Neutral) Politics of education: A critical race theory perspective. February 2003 *Education Administration Quarterly*. Vol. 39, No. 1.
- Osler, J. E. (2012). Trichotomy–Squared—A novel mixed methods test and research procedure designed to analyze, transform, and compare qualitative and quantitative data for education scientists who are administrators, practitioners, teachers, and technologists. July–September *iManager's (International) Journal on Mathematics*. Vol. 1, No. 3.
- Osler, J. E., Hollowell, P. G. & Nichols, S. M. (2012). Technology engineering in science education: where instructional challenges interface nonconforming productivity to increase retention, enhance transfer, and maximize student learning. July–September *iManager's (International Journal of Educational Technology)*. Vol. 9, No. 2.
- Osler, J. E. & Waden, C. (2012). Using innovative technical solutions as an intervention for at risk students: a meta–cognitive statistical analysis to determine the impact of ninth grade freshman academies, centers, and center models upon minority student retention and achievement. September–November *iManager's (International) Journal on School Educational Technology*. Vol. 7, No. 3.
- Osler J. E., Bull P. H. & Eaton, D. (2012). Dynamic educational collaboration between university and high school faculty promoting partnership in teaching and learning in the 21st century. March–May *iManager's International Journal on Educational Technology*. Vol. 7, No. 4.
- Slavin, R. E. (1992). *Research methods in education, 2nd edition*. Needham Heights, MA: Allyn and Bacon.
- Snell, J. C. & Marsh M. (2003). Meta–cognitive analysis: an alternative to literature reviews and meta–analysis for the sciences and the arts. *Education*, Vol. 124. Winter, 2003.

BOOK REVIEW

THE CASE FOR ALTERNATIVE CERTIFICATION BY DR. CAMACIA SMITH-ROSS

Reviewed By: Judith Blakely, Walden University

The Case for Alternative Certification, written by Dr. Camacia Smith-Ross, is an engaging, insightful, and timely publication. Focused on the Louisiana education system (but easily applicable to many other regions), the author details the current state of teaching (i.e. declining numbers in the field, the debate regarding teacher quality, etc.) and why alternative certification could be a very promising answer.

Although the perspective of the author is foreshadowed in the title of the book, the writing is filled with factual and current information, making this book an excellent resource for students, professors, school administrators, and those hoping to enter the field of education. Like a seasoned detective building a case, Dr. Smith-Ross introduces the reader to every facet of information needed to make an informed decision (teacher accountability, nationwide expectations, teacher self-efficacy, the Educational Reform Movement, Louisiana Bulletin

746, various certification programs/types, alternative education program funding options, and much more (. . .), allowing the reader to take part in the evolution of the current system while weighing the pros and cons of making changes to that system.

The Case for Alternative Teacher Certification, is a well-written and impressive call to action for education professionals, legislators, and higher-learning institutions to not only contemplate the state of education as both a product and a profession, but to proactively engage in the discussion, problem-solving, and ultimate solution to current trends. As the first African-American Dean of Education in Louisiana College in Pineville's 110-year history, Dr. Camacia Smith-Ross has undoubtedly been privy to the results on both sides of the aisle, and she has shared that knowledge with all of us. I recommend this book highly to anyone who holds the future of education, and subsequently the future of our nation in high-esteem.

CONTRIBUTORS

Samuel Amankwah Agyemang, Ph.D. lives in Virginia with my family and successfully completed my master's program in Special Education, (Med) at George Mason University and doctoral at University of Phoenix. Currently he is teaching students identified with learning disability. It is a challenging job to effect positive changes in the society. He has 33 years teaching experience in both general and special education settings. He is highly motivated individual, who by virtue of my work ethics always bring the best out of people around for him. He has often been searching for better ways to do things. He is diligent, patient, and loving teacher who get along with all types of people. He displays a sense of good leadership skills through the help of his colleagues. His professional goal is to become a professor in one of the renowned colleges in the world.

Judith Blakely, Ed.D. is a 42-year-veteran of urban educational systems, and has been featured as a cultural diversity and multi-categorical education expert in the secondary and post-secondary arenas. She is certified in multiple states as a School Superintendent, School Administrator (pre K-12 principal), Director of Special, Bilingual, and Gifted Education. She is also a member of the National Association for Bilingual Education (providing work and service to the discipline of world language). Judith also founded the International Club at Walden University. The first of its kind, the club is designed to be a "think tank" where educators (Walden professors and practitioners) from Dubai to Tennessee (world-wide) can share innovative ideas on teaching and learning, mentor one another, and cultivate an appreciation of cultural diversity.

Ashraf Esmail, Ph.D. is the Program Coordinator of Criminal Justice at Dillard University. He is the senior editor of the Journal of Education and Social Justice and the International Journal of Leadership, Education and Business Studies. He serves as the Proposal Review Lead and serves on the publication committee for the National Association for Multicultural Education. He also serves on the Board of Directors for the National Association for Peace/Anti-Violence Education.

Mary Fries is the Administrative Support Associate for the Department of Economics at Winston-Salem State University. She has earned her bachelor's degrees in the areas of Justice Studies and Sociology and plans on pursuing a master's degree in the near future.

Alvin Mitchell is an Associate Professor of Political Science in the Department of History, Politics & Social Justice at Winston-Salem State University. His area of expertise is the death penalty.

James E. Osler II Ed.D. is an artist, has been a K-12 teacher, is an active researcher, an innovative technologist, and is currently a faculty member in the School of Education (SOE) at North Carolina Central University (NCCU). Osler is also the author of many influential refereed journal articles, books, and papers on topics as diverse as education, instructional design, inventive ideation, mathematics, neuroscience, online learning, statistics, science, and technology. He is a licensed K-12 Art Educator and a licensed Instructional Technology Specialist with a Technology Endorsement. He has served on multiple refereed journal review boards and has authored a graduate-level program (in the SOE) with a certificate in E-Learning Instruc-

tion. He has received three of the highest and most respected honors at NCCU: “The Employee Recognition Award for Outstanding Service”, “The University Award for Teaching Excellence”, and the first “Chancellor's Award for Innovation”. He is also the recent recipient of the 2017 IGI Global Outstanding Scholars Award.

Minnie Ransom, Ed.D., is married, has three grown children and five grandchildren. She was born in Hooks, Texas and lived there and in the Texarkana, Texas area from birth until age 16 with several different relatives after her mother gave her to her father's relatives at birth. She discovered after attending 1st grade that she wanted to be a teacher and would teach her cousins what she had learned in school. In high school she thought that she wanted to teach Home Economics. She always had a desire to please and her teachers encouraged her. Her father was later stationed in the area, met her, and took her to California but he abandoned her and she was placed in Foster Homes until age 18 when she was then on her own. She finished high school and put herself through college by working as a pre-school teacher in Berkeley, California near UC Berkeley and took classes at night. This is when she became interested in Multi-Cultural Education and English Language Learners.

Tami Smith is a graduate student at Humane Society University. Her article is an edited version of the manuscript that was submitted to Humane Society University in March of 2015 as fulfillment of the requirements of the degree of Master's of Science in Animal Studies.

Theresa D. Smith, Ph.D, is an established Researcher and a published Author in the Criminal Justice field and other writings. Theresa earned her doctorate in Human Services with an emphasis in Criminal Justice from Capella University and her Masters of Science in Criminal Justice from the University of Cincinnati, Ohio. She has a Private Investigators Degree from Chicago, Ill. and is registered and licensed in the State of California in private security, body guard services and a Chauffer. Dr. Smith is also a member of Alpha Phi Sigma a National Criminal Justice Honor Society and a member of Iota Omicron at Capella University Minneapolis, Minnesota. Her professional experience includes prior law enforcement and teaching all levels of education. She is currently interested in the advancement of private law enforcement and law enforcement communications nationally as well as internationally.