A SOCRATIC/STUDENT-CENTERED APPROACH TO
MIDDLE SCHOOL EDUCATION

A Dissertation

by

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ABSTRACT

By means of a mixed paradigm, this study examined the efficacy of implementing a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom to promote academic achievement in reading and overall student motivation. The researcher also explored the perceptions of eight students from the treatment group, through a journaling experience and a focus group, regarding education and Socratic student-centered experiences.

Quantitative data were collected via three commonly used pretest and posttest reading assessment instruments measuring achievement. Two questionnaires were also given before and after the intervention, which measured the students’ self-perceived beliefs about school performance. This quantitative sample included a total of 82 seventh grade students; 46 students established the treatment group and received a Socratic method of instruction infused with a Rogerian student-centered for a twelve-week period, while the control group consisted of 36 students and received a teacher-directed approach. The results showed significant effect of treatment on the combination of all dependent measures (achievement, grades, motivation, talent, context, and effort) Pillai’s trace \( .408 \ F(6, 75) = 8.6, p<.001; \eta^2 = .408 \) (moderate effect size).

Qualitative data were obtained through a Naturalistic Inquiry Design, examining students’ perceptions of education and the learning process, while being taught using the Socratic method of instruction infused with a Rogerian student-centered approach. Data were collected via journal responses and a semi-structured interviewing process of eight volunteer students. Evaluation of the data was obtained through a thematic content analysis (Patton, 2002). Trustworthiness was obtained through the establishment of
Socratic Method with Rogerian Student-centered descriptive validity, interpretive validity, and theoretical validity (Johnson, 1997). The findings revealed themes regarding the students' perceptions of education, the teaching profession, and the Socratic method of instruction infused with a Rogerian student-centered approach, respectively. Themes regarding education included the importance, key to freedom, future opportunities, success, and goal attainment. The participants ascertained effective teachers should possess the following characteristics: fairness, empathy, compassion, understanding, and active listening. The Socratic method of instruction infused with a Rogerian student-centered approach was perceived as promoting academic freedom, heightened levels of confidence, obtained voice, and the feeling of being understood.
DEDICATION

This dissertation is dedicated to the most genuine, empathetic, and unconditionally loving educators I have ever had the joy of knowing in my lifetime.

First and foremost, this work is dedicated to Jesus Christ, My Lord and Savior, the Wonder Counselor, without whose continuous guidance I could not have even begun this process. I was, am now, and will always be solely HIS servant and instrument of genuineness and compassion.

Secondly, this work is dedicated to my loving parents, who happen to be my first educators, Dr. Tony C. and Mrs. Maria A. Diaz. Watching you rise from your humble beginnings serves as a constant reminder to me that with GOD all things are possible. Thank you for always being there for me to remind me, by your examples, of HIS undying love. I love you, Mom and Dad, more than words can ever express.

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CHAPTER 1
Introduction

Background

According to recent research, as we move forward from one century to the next, the paradigm of our nation's educational system continues to shift to a powerfully, concentrated focus on the overall academic performance, achievement, and motivation of every student in the United States; thus, ensuring a productive and functional society. An underlying premise dictating the preservation of one's existence in this country mandates successful academic performance for an individual to maintain a prolific and self-satisfying continuance. In support of this ideology, as indicated by Wiener and Hall (2004), obtaining advanced knowledge and skills in education recently surfaces as a crucial component for competition in our global economy. The significance of education, however, is not a novel concept. At the turn of our previous century, Horace Mann, often referred to as the "father of public education", sagaciously recognized the true importance of obtaining an education when he profoundly declared that "Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery" (White, 2004).

Acknowledging the roots of this well-established precedent regarding the importance of education, recent studies indicate that, "In the vast majority of states, there has been an increased emphasis on high academic achievement for all students. The No Child Left Behind Act (2001) has established new math and reading testing requirements and has authorized funds for states to develop, select, and design their own tests" (Clark
& Amatea, 2004); thus, placing stringent and highly significant pressure upon educators, students, and families at all levels of the system.

**Recent Paradigm Shift in Education**

With increased academic expectations set at federal, state, and local levels, an overwhelming manifestation of academic decline simultaneously emerges, posing great threats to the overall quality of our nation’s economic sustenance and general framework. According to the National Center for Educational Statistics (NCES) (Kaufman, et al., 2004), “In October, 2001, some 3.8 million young adults were not enrolled in a high school program and had not completed high school” (Laird, et al., 2006). With higher demands placed upon students regarding academic performance and achievement, the number of young adults failing to fulfill the necessary requirements of obtaining a high school diploma is predicted to rapidly increase at tremendous rates. These alarming statistics serve as the foundation of governmental agendas throughout the nation. For this reason, researchers contend that “School reform has moved to the forefront of public issues as stakeholders throughout the United States increase the emphasis on raising the educational achievement of all students” (House & Hayes, 2002). However, in conjunction with this claim, the latest research indicates that the task and responsibility of school counselors and counselor educators throughout the nation remains omitted from most academic reform agendas and movements. Supporting literature reveals that “Despite the recent emphasis upon a radical transformation of schooling, however, practicing counselors and the educators who prepare them have been largely absent from school reform efforts” (Paisley, 2003). The absence of school counselors and counselor educators regarding reform efforts is not a new concept, as school counselors, in the past,
have usually been omitted from these reform agendas. According to the Education Trust Foundation (2003), "Indeed, student achievement is everybody's business. In most states, however, only superintendents, teachers, and principals are included in the accountability system. This mistakenly signals many important players – including counselors, students, parents, and the community at large – that they do not have significant roles in education improvement." For this reason, counselors and those responsible for educating them have a professional obligation to ensure that this dynamic is ultimately attuned.

Changing Role School Counselor

Regardless of the exclusion from crucial reform efforts, school counselors and counselor educators are increasingly being held "accountable", through the No Child Left Behind Act (2001), for ensuring the academic success of all students; thus, embedded within the context of educational reform regarding academic achievement, lays the newly emergent role of the school counselor and counselor educator. According to Gysbers (2004), "School counselors, working within the framework of comprehensive guidance and counseling programs, increasingly are being asked to demonstrate that their work contributes to student success, particularly student academic achievement." After extensive review of the literature, the need for school counselors to examine their role regarding academic achievement continues to increase. Keeping in alignment with this changing role, the Education Trust Foundation (2003) conducted a recent study and found that in previous years "School counselors focus too much on counseling students with serious emotional and social problems, while denying students sufficient academic guidance and direction" (Alexander, et al., 2003). As a result of this heightened "accountability" for counselors to improve academic achievement, the role of the school
counselor has transformed from an individual mental health model, to one that addresses
the challenging academic success of all students.

School Counselor's Examination of Pedagogy

With regard to this newly acquired focus toward an academic domain, current
research supports the need for school counselors and counselor educators to investigate
pedagogical practices designed to increase academic achievement and overall student
motivation. According to Poynton, et al., (2006), since school counselors are now
expected to demonstrate and verify positive effects on student academic achievement in
schools throughout the nation, a need to examine pedagogical practices has recently
emerged. Furthermore, Dahir (2004), who is noted as one of the leading researchers
regarding the transformation of the role of the school counselor, concludes that “The
most recent school reform agenda directed the development of national standards across
the academic content areas to improve educational practice and pedagogy.” Tony C.
Diaz, Ed.D., (T.C. Diaz, personal communication, December 5, 2004) a retired Assistant
Superintendent who supervised nearly one hundred school counselors in a large school
district in South Texas, declared in an interview that he witnessed the earlier role of the
school counselor focusing primarily on academic remediation approaches, rather than
academic intervention strategies. Diaz continued by concurring with the Education Trust
Foundation (2003) regarding the need to pursue preventative measures of intervention
with regard to academics.

Examination of the Socratic Method of Instruction Infused with a Rogerian Student-
centered Approach

In alignment with the suggestions of Poynton, et al., (2006), Dahir (2004), the
Education Trust Foundation (2003), and Diaz (2004), academic achievement in schools
necessitates the examination of pedagogical practices by school counselors; hence, an
assessment of the Socratic method of instruction (Strong, 1997; Copeland, 2005) infused
with a Rogerian student-centered approach (Rogers, 1939, 1969, 1977, 1983) is justified.
As part of the preventative intervention measure, examining the effects of this
instructional approach in middle schools may provide additional literature for future
application of the process itself as a tool to enhance academic performance and
motivation. Furthermore, these additions to the literature may promote future studies
g geared at enhancing academic success in schools throughout the United States, which
may prove advantageous in decreasing and/or annihilating the dropout rate, as reported
by the National Center for Educational Statistics (U.S. Department of Education, 2004).

The Socratic method of instruction has been examined in both qualitative and
quantitative research; however, a review of the literature reveals it has yet to be examined
in conjunction with a counseling technique, namely the Rogerian student-centered
approach. Shain (1995) used a qualitative research design to examine the use of the
Socratic method on a third grade reading class to promote higher-level thinking. Mee
(2000) conducted a qualitative exploration of the effects on student motivation of seventh
graders being instructed using the Socratic method. Boghossian (2004) researched the
qualitative and quantitative effects of using the Socratic method with inmates in Portland,
Oregon. The Socratic method of instruction has been implemented independently in law
schools throughout the nation for many years. At Harvard University the Socratic method
is used in its professional schools including law, business, and medical (Garvin, 2003).
According to Garrett (1998), the University of Chicago uses the Socratic method to assist
its law students in extinguishing the fear of speaking in front of large crowds in a courtroom.

Currently, the use of the Socratic method has been utilized with the Latino population in El Paso, Texas, with great success. The Socratic Institute at Riverside High School, a magnet school located approximately one mile from the U.S.-Mexican border, in conjunction with the University of Texas-El Paso, is designed to promote the academic success of Latino students in their endeavors to become future educators (Oliva & Staudt, 2004). This method of instruction is also being used in various classes throughout the United States, namely character education (Elkind & Sweet, 1997), agricultural (Moore & Rudd, 2002), mathematics (Garlikov, 2000), science (Ward, 1997), technology-based (Carnevale, 2005), and inmate education (Boghossian, 2004). In an article entitled, “School Counselors and Principals: Partners in Support of Academic Achievement,” it is clearly noted that school counselors and principals can collaborate to lead staff development training for teachers in important areas, such as intervention strategies to promote academic achievement and motivation (Stone & Clark, 2001). One such intervention strategy is that of the Socratic method of instruction. According to Loan (2003), Strong (1997) defines the Socratic method in the following manner:

Socratic Practice is the daily practice of learning how to learn, learning how to work in a group, and learning how to apply ideas to one's life. Students become intrinsically motivated lifelong learners. The goal is not to cover curriculum. The goal is not to have an exciting conversation on any particular day. The goal is to develop new social and intellectual habits and a new orientation towards learning, self, and others.
According to the literature regarding the use of the Socratic method, this practice could serve as a tool to enhance the academic success of students encompassing various academic levels and content areas (Strong, 1997; Copeland, 2005).

**Standardized Tests and Critical Thinking Skills**

While examining pedagogical practices, school counselors continue to focus on increased expectations placed upon students to successfully master standardized tests. The most recent standardized examinations used across the nation, designed to comply with federal mandates, require vast amounts of in-depth reading proficiencies and force students to utilize critical thinking skills in all core subject areas tested, namely English language arts, mathematics, science, and social studies. The Socratic method of instruction has been proven to enhance critical thinking skills found on these standardized tests (Boghossian, 2004). Hence, since teachers, principals, and school counselors collaboratively remain accountable for ensuring each student’s academic success, an examination of the effects of the Socratic method of instruction infused with a Rogerian student-centered approach in middle schools is hereby warranted.

**Overview of the Study**

**Statement of the Problem**

Recent literature indicates that with higher demands being placed upon students regarding academic performance and achievement, the “accountability” of educators, at all levels of the educational process, has significantly increased. The literature further reveals that federal mandates have established stringent math and reading testing requirements, and individual states have developed, selected, and designed their own tests to comply with these mandates (Clark & Amatea, 2002). In conjunction with the rigorous
Socratic Method with Rogerian Student-centered

academic requirements, the newly emergent role of the school counselor has shifted from a mental health model to one that focuses on the academic needs of the students (Dahir & Stone, 2003). One method school counselors can implement to promote academic achievement and motivation is to examine pedagogical practices that enhance student learning and overall achievement (Stone, 1997). While literature exists regarding the use of the Socratic method of instruction, there remains a dearth of literature that infuses the Socratic method of instruction with a counselor-based approach, namely a Rogerian student-centered one. Furthermore, since reading remains a crucial component of academic achievement on standardized tests found in the four main content areas of English language arts, mathematics, science, and social studies, the focus on enhancing reading comprehension appears essential, as high school students are expected to master these standardized exit tests in order to obtain a high school diploma. Hence, investigations on the efficacy of new methods of pedagogy are needed in today’s public schools.

Purpose of the Study

The purpose of this mixed methods study was to understand the experience and determine the efficacy of using a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom. The independent variable, or treatment, in this study integrated a Socratic method of instruction with a Rogerian student-centered approach. The dependent variables were defined as standardized testing measurements used to determine a student’s reading comprehension level and the students’ self-perceived views regarding motivation, context, effort, and talent, as well as, self-reported grades. The intervening variables proposed that the use of
the Socratic method of teaching infused with a Rogerian student-centered approach enabled students to implement critical thinking skills, thus, attaining higher scores on standardized tests. The study focused upon the implementation of the Socratic method infused with a Rogerian student-centered approach; thus enabling the students to achieve higher scores on standardized tests leading to the attainment of the students' overall academic goals.

*Theoretical Perspective*


The works of John Dewey have established models, which are based upon making sense of real-life experiences (Applefield, et al., 2001), rather than viewing these models as fixed or determined (Smeardon, et al., 1999). Furthermore, Piaget has had an enormous influence on the understanding of cognitive development and was one of the major figures responsible for the emergence of cognitivism from the earlier behaviorist era in psychology (Piaget & Inhelder, 1969). Piaget indicates that assimilation of knowledge plays a critical role in setting the stage for accommodation, in that the accommodation cannot proceed without assimilation. The Theory of Cognitive Development by Piaget has provided an ample foundation from which to derive conclusions about perspective studies regarding a child’s cognitive learning process.
Additionally, the works of Lev Vygotsky regarding child cognitive growth and development led to the discovery of the Zone of Proximal Development Theory (Vygotsky, 1962), which is part of the results found on the *Standardized Testing Assessment in Reading* measurement or STAR test (Richards, 1998), a dependent variable in this study.

Additionally, Stage Five of the Eight Stages of Human Development by Eric Erickson (Erikson, 1959, 1994), *Ego Identity versus Role Confusion*, was taken into consideration when implementing the Socratic method of instruction infused with a Rogerian student-centered approach. This stage states that students, at this age level, are striving to develop a self-image, understand who they are, and how their roles will fit into their future. The middle school adolescent, who comprised the population and sample of this study, falls under this stage of human development.

Finally, Carl Rogers’ Experiential Theory of Learning and his views on the interpersonal relationship in the facilitation of learning serve as a foundation for the implementation of the Socratic method of instruction. According to Rogers (1969), the qualities that facilitate learning via a student-centered approach include realness or genuineness in the facilitator of learning, prizing, acceptance, trust, and empathy.

**Research Questions**

1. What are the primary effects of implementing the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom on standardized tests scores in reading?
2. How does using the Socratic method of instruction infused with a Rogerian student-centered approach affect students’ grades in the four major content areas (language arts, math, science, and social studies)?

3. How is overall student motivation affected by using the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom?

4. To what extent does using the Socratic method of instruction infused with a Rogerian student-centered approach influence students’ talents in school?

5. How does using the Socratic method of instruction infused with a Rogerian student-centered approach relate to the students’ perception of context?

6. What are the affects on the students’ efforts on tests while using the Socratic method of instruction infused with a Rogerian student-centered approach?

7. How would students receiving a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom describe their experience and their perceptions of education?

Statement of the Hypotheses

The following general null hypotheses were developed for analyses in this mixed methods study based upon an overall achievement score, grades, motivation, talent, context, and effort. The overall achievement score (ACH) is a compilation of the three reading assessments: Released TAKS Reading Tests (Texas Education Agency, 2003), namely the 2003-pretest and 2004-posttest, the Gates-MacGinitie Reading Test (Forms S-pretest and T-posttest) (Gates & MacGinitie, 2000), and the Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998). The Morgan Jinks Student Efficacy
Scale (MJSES) was used to measure self-reported grades, as well as perceptions and beliefs regarding talent, effort, and context (Jinks & Morgan, 1999). Grades were measured by the students’ self-reported letter grades in the four major content areas of English language arts, mathematics, science, and social studies and reported on the MJSES (1999). The letter grade scale was as follows: A = student’s average ranging between 100-90, B = student’s average ranging between 89-80, C = student’s average ranging between 79-70, D = student’s average ranging between 69-60, and F = student’s average ranging between 59-0. Talent measured students’ perceptions about their own innate talents or abilities. Effort was measured by the students’ perceptions of the role of their effort in completing a task. Context measured the context of schooling, which is referred to as the “sociocultural” context of school. Motivation was measured by the student’s academic interest in school revealed in the Student Opinion Scale (SOS) (Sundre, 1999).

Null Hypothesis 1: There will be no significant difference in the pretest and posttest achievement scores between the treatment and control group mean scores.

Null Hypothesis 2: There will be no significant difference of grades students earn between the treatment and control group mean scores.

Null Hypothesis 3: There will be no significant difference in motivation between the treatment and control group mean scores in the pretest and posttest scores.

Null Hypothesis 4: There will be no significant difference in talent between the treatment and control group mean scores in the pretest and posttest scores.
Null Hypothesis 5: There will be no significant difference in context between the treatment and control group mean scores in the pretest and posttest scores.

Null Hypothesis 6: There will be no significant difference in effort between the treatment and control group mean scores in the pretest and posttest scores.

This mixed methods research examined the efficacy of the implementation of the Socratic method of instruction infused with a Rogerian student-centered approach in the seventh grade language arts classroom and the academic performance, self-perceived efficacy, and motivation of the students receiving the treatment. Both conceptual and operational variables were measured. The conceptual variables included student motivation, talent, context, and effort. Additional conceptual variable were letter grades, as self-reported by the students. The operational variables were the scores on the standardized reading tests.

Methodology

The approach used in this mixed methods research design utilized a treatment group of 42 students and control group of 36 students, for a total of 82 students of varied levels of competence, ethnicity, and gender. The quantitative portion of the design consisted of the dependent variable, labeled achievement score (ACH), which was comprised of the reading scores obtained on three commonly used standardized testing instruments measuring reading comprehension, achievement, and growth, namely the Released Texas Assessment of Knowledge and Skills Tests (TAKS) from the years 2003 and 2004 (Texas Education Agency, 2003), the Gates-MacGinitie Reading Test (GMRT) (Gates & MacGinitie, 2000), and the Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998). In addition, two questionnaires were used to assess students’
self-reported grades and perceptions regarding motivation, talent, context, and effort. The Morgan Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) was used to measure student efficacy via self-reported grades, talent, context, and effort, while the Student Opinion Scale (SOS) (Sundre, 1999) was used to measure the students' overall level of motivation. The data was analyzed using a Multiple Analysis of Variance (MANOVA), which allowed for more than one covariate. In this research design, the MANOVA was used for two main reasons. The use of more than one covariate reduced the error of variance; thus, increasing the chance of rejecting a null hypothesis that is actually false (Mertler & Vannatta, 2005).

The qualitative research was conducted through a Naturalistic Inquiry Design examining the students' perceptions of education and the learning process while being taught using the Socratic method of instruction infused with a Rogerian student-centered approach. With parental permission, data was gathered through journal responses and a semi-structured focus group of eight volunteer students. The students were interviewed once a week for approximately two hours, totaling approximately twelve hours. The evaluation of the data was obtained through a thematic content analysis (Patton, 2002). The interpretation of the data revealed commonalities found throughout the research process. Trustworthiness was obtained through the establishment of descriptive validity, interpretive validity, and theoretical validity (Johnson, 1997).

**Significance of the Study**

This study could add to the literature regarding the school counselor's role in promoting academic achievement by examining the pedagogical practice of the Socratic method of instruction infused with a Rogerian student-centered approach. At the time the
study was conducted, the dropout rate for students at the high school level was at 10.9% and was expected to increase significantly as higher demands continue to be placed upon students to exhibit academic achievement via mastery of standardized exit testing as a requirement for obtaining a high school diploma (Laird, et al., 2006). In the advent of a stringent academic focus, school counselors are recently being held more accountable to demonstrate their role in promoting academic achievement (Gysbers, 2004). According to the American School Counselor Association, “School counseling programs promote school success through a focus on academic achievement, prevention and intervention activities, advocacy, and social-emotional and career development” (ASCA, 2003).

The newly emergent role of the school counselor, with its focus on academic achievement, has created a vital need to explore various avenues of ensuring student academic success. In 2003, the Education Trust and MetLife Foundations established the National Center for Transforming School Counseling (NCTSC). This center serves as a hub of information to assist school counselors in addressing the new focus of “accountability” toward academic achievement. According to the Education Trust Foundation (2003), the center offers the necessary training, tools and data needed to meet the needs of all students served. Upon announcing the new National Center for Transforming School Counseling (NCTSC), Kati Haycock, Director of the Education Trust Foundation, stated that “School counselors are ideally positioned to serve as advocates for students and create opportunities for all students to reach these new high academic goals.” Limited research exists addressing the school counselor’s preventative intervention role in advocating academic success for all students via a focus on pedagogical practices designed to enhance academic achievement and motivation.
Population and Sample

This mixed methods study was conducted in a middle school located in a large school district in South Texas. At the time of the study, the school had an enrollment of approximately 825 students, of which 240 were in the seventh grade. The school was composed of students in grades sixth, seventh, and eighth, whose ages were between 11 and 16. The ethnic breakdown of the population revealed that the school was composed of 18% White, 74% Hispanic, 6% Black, 1% Asian, and less than 1% Native American. Figure 1.1 illustrates the ethnicity of the population.

Figure 1.1 Ethnic Breakdown

The quantitative portion of the study was comprised of 82 seventh grade students. Forty-six students were part of the treatment group, taught using the Socratic method of instruction infused with a Rogerian student-centered approach, while 36 students formed the control group and were taught using a teacher-directed approach. The students receiving the teacher-directed approach (Joyce, B, et. al, 1992) received the Socratic
method of instruction infused with a Rogerian student-centered approach after the twelve-week period, in order to concur with ethical practices. The students in both the treatment group and the control group were representative of the ethnic breakdown of the school.

Written permission from Institutional Review Board at Texas A&M University in Corpus Christi was obtained prior to the study. Participation in this study was based on a convenience sample, as all students are required to take this English language arts class. The participants for the quantitative portion of the study were selected at random by the Pentamation System, a computer-based program that randomly selects the students’ respective schedule of classes. All data collected for this project was included in the official Campus Improvement Plan (CIP) at the middle school for the 2005-2006 school year and was approved by the principal of the school where the study took place.

With regards to the qualitative component of this study, eight participants were purposely selected (Patton, 2002) by the researcher from the middle school students who had received the Socratic method of instruction infused with a Rogerian student-centered approach in their language arts class, based upon the students’ ability to articulate thoughts, feelings, and perceptions. In order to be in alignment with the gender and ethnic ratio of the sample, the participants included: two Hispanic females and two Hispanic males; one Black female and one Black male; and one Anglo female and one Anglo male. The academic abilities of the students varied and were reflected by grades in the four core academic areas. The participant’s respective grade point average in the four content areas was 81. The data acquired and assessed was used anonymously to protect the confidentiality of the students.
Parental consent was granted in writing prior to participation in this portion of the study. Only the principle investigator produced notes and transcripts of any and all recordings. The anonymity of participating students was maintained throughout the entire project and continues to be upheld. The audiotapes were erased after the transcription was processed. Due to strict liability issues, the principal at the school was the only other person who was given the names of the participants in this study; however, the anonymity of the responses remained and no repercussions were assessed against the volunteering participants in any way. In addition, the participants were not subjected to any risks and confidentiality was maintained throughout the research process. The signed consent and ascent forms will be locked in the researcher’s personal file cabinet for seven years after the youngest participant’s eighteenth birthday.

Treatment

The perceptive Greek philosopher, Plato once noted, “Do not train children to learning by force and harshness, but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each” (Haselhurst, 2004). Following this keystone premise regarding the manner in which to educate children, the significance of teaching approaches and students’ learning styles necessitate continuous exploration.

The treatment, Independent Variable, consisted of a twelve-week period (sixty days) of instructional sessions utilizing the Socratic method of instruction infused with a Rogerian student-centered approach for one hour in length, five times a week, totaling sixty hours of treatment.
The Socratic method is defined as exploratory intellectual conversations centered on a text such as an essay, a technical report, a poem, an artifact, a painting, or a video (Lambright, 1995). The leader's (teacher's) task is to assess the abilities of the group members and to choose a text; to do a close reading of the text, first reading for literal understanding and then reading for deeper levels of meaning; and to develop an opening question that connects to both the text and the audience. Socratic method differs from discussions largely because of the focus on dialogue, critical thinking, and the opening question (Strong, 1997).

The Socratic sessions included four thematic units, namely perception, reality, empathy, and relativity. The units were based upon the literary works of Emily Dickinson, Edgar Allan Poe, Walt Whitman, Charles Dickens, Jerry Spinelli, Martin Luther King, William Wordsworth, Theodore Geisel, and Maya Angelou. In addition to the literary works of historical and contemporary authors, the students also analyzed the works Vincent Van Goth, Salvador Dali, and Albert Einstein. A sample lesson of Walt Whitman’s poem, “When I Heard the Learn’d Astronomer” is provided in Appendix H. The Socratic method of instruction, Socratic literature circles, Socratic seminars are used interchangeably throughout this research.

*Quantitative Instrumentation*

The instruments used to assess the quantitative portion of the study generated by the data were three forms of standardized reading tests: the Released TAKS Reading Tests (Texas Education Agency, 2003), namely the 2003-pretest and 2004-posttest, the Gates-MacGinitie Reading Test (GMRT) Forms S and T (Gates & MacGinitie, 2000), and the *Standardized Testing Assessment in Reading* (S.T.A.R.) (Richards, 1998). These three
instruments were combined to form the one achievement score analyzed in the results. The two questionnaires in this study were the Morgan Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999), which measured student efficacy using students’ self-reported grades and perceptions regarding talent, context, and effort. The Student Opinion Scale (SOS) (Sundre, 1999) measured the students’ overall level of motivation.

The Texas Assessment of Knowledge and Skills (TAKS) Reading Test is a criterion-referenced assessment, which was developed to measure a student’s minimal reading proficiency (Texas Education Agency, 2003). Results of the TAKS test are reported annually at the student, campus, district, regional, and state levels. Reliability studies on the TAKS test focus on ensuring that a test measures what it purports to assess. Internal consistency of the TAKS test data has been assessed using the Kuder-Richardson Formulas 20 and 21 (KR-20 and KR-21). Kuder-Richardson 20 is used yearly by the Texas Education Agency in relationship to all exams at all levels. A range of 0.86 to 0.91 was reported by the Texas Education Agency for the 2003 administration in the area of reading.

The Gates-MacGinite Reading Test (GMRT) (Gates & MacGinitie, 1999) is a normed-referenced standardized test, which was developed to measure a student’s reading proficiency. The GMRT was selected because it is an established standardized assessment frequently used with young children with documented psychometric properties. The reliability of this testing instrument has been measured in various studies and results in .85. With regard to the validity of the Gates-MacGinite Reading Test, numerous studies have been conducted to measure the content, construct, and criterion-related validity since its creation in 1964. This instrument has been used throughout the
United States for over forty years to assess the students' vocabulary and reading comprehension levels.

The Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998) offers sound estimates on students' reading levels relative to national norms. The norm-referenced test is designed to determine the instructional reading levels of students from grades one through twelve, compare students' performance to national norms, and track an individual's growth in reading across the grade levels. Test-retest reliability across an interval of measurement and the variance of the IRT-based observed variance resulted in an overall coefficient, across grades, of .95 and ranged from .82 to .89 within grades. Construct validity was examined using test scores from a variety of other reading measures that were separated in time, in certain cases, anywhere from one to three years. This testing instrument also measures each student's Zone of Proximal Development, which was designed by Lev Vygotsky (1962) and is defined as the "actual developmental level as determined by independent problem solving" and the "potential development as determined through problem solving under adult guidance or in collaboration with more capable peers."

The Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) measured student efficacy via the self-perceived importance and effort of the student with regards to his or her education. This scale has undergone extensive development to assure validity and reliability using DeVellis's (1991) Scale Development: Theory and Application for primary guidance. The current instrument, which contains 30-items measuring talent, context and effort, contains an overall reliability coefficient of .82. The sub-scale alphas were .78 for talent, .70 for context, and .66 for effort. All items were

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Grades were measured by this MJSES (1999) on items 31-34 and included the students' self-reported letter grades in the four major content areas of language arts, mathematics, science, and social studies. The letter grade scale was as follows: A = student's average ranged between 100-90, B = student's average ranged between 89-80, C = student's average ranged between 79-70, D = student's average ranged between 69-60, and F = student's average ranged between 59-0.

The Student Opinion Scale (SOS) (Sundre, 1999) measured the students' overall level of motivation. This instrument is comprised of 10 items using a five-point Likert Scale ranging from 1 "Strongly Disagree", 2 "Disagree", 3 "Neutral", 4 "Agree" to 5 "Strongly Agree." The Total Motivation score is determined by summing responses to all ten items. Estimated reliability for students taking a paper and pencil administration of the SOS (1999) on assessment day resulted in an alpha reliability of .84. A substantial amount of validity evidence has been found for the SOS (Sundre, 1999; Sundre & Wise, 2003). A copy of the SOS, along with its scoring guide, was downloaded from the Internet using the following URL: www.jmu.edu/assessment/mot.shtml.

*Researcher as Instrument*

As noted by numerous experts regarding qualitative inquiry research, the researcher is the instrument by which an investigation is conducted (Patton, 2002); therefore, it remained imperative to be an "empathic observer" of the data throughout the research process (Heppner, 1999). This objective provides the researcher with a more
authentic or "real world" perspectives of the participants, rather than one dictated solely by the researcher.

The primary researcher, who implemented the treatment being examined in this research, is a Texas certified English language arts teacher with seven years teaching experience who holds a master’s degree in counseling from a CACREP accredited institution located in the Gulf Coast region of South Texas. The primary researcher also holds a certified school counselor (CSC) certificate from the state of Texas.

Data Collection and Analyses

The design of this study consisted of a pretest-posttest mixed methods design, which included a treatment and control group. Forty-six students comprised the treatment group and were taught using the Socratic method of instruction (Strong, 1997; Copeland, 2005) infused with a Rogerian student-centered approach (Rogers, 1939, 1969), while 36 students formed the control group and were taught using a teacher-directed approach (Joyce, B, et. al, 1992).

The scores of all three reading tests were combined to produce an Achievement Score (ACH). The three reading tests were the Released TAKS Reading Tests (Texas Education Agency, 2003), namely the 2003-pretest and 2004-posttest, the Gates-MacGinitie Reading Test (Gates & MacGinitie, 2000) Forms S and T, and the Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998). In addition, two questionnaires in this study were the Morgan Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999), which measured student efficacy using students’ self-reported grades and perceptions regarding talent, context, and effort. The Student Opinion Scale (SOS) (Sundre, 1999) measured the students’ overall self-perceived level of motivation.
At the completion of the study, the post-test scores measuring the dependent variables, which included the one achievement score (ACH), students’ grades, levels of perceived academic talents, context, and efforts exerted on the testing instruments, and overall level of student motivation toward school and learning were interpreted using the SPSS (Statistical Package for the Social Sciences). A Multiple Analysis of Variance (MANOVA) with a pretest-posttest repeated measures factor was used to determine the significant changes that occurred.

The data collection regarding the qualitative component of this study included a journal writing experience prior to the focus groups, open-ended conversations, and six two-hour focus group interviews with all eight participants, who represented the ethnic, gender, and academic ability levels of the population. The researcher/interviewer took care to establish rapport and understand the variety of beliefs held by the participants. The use of thematic content analysis (Patton, 2002) was used to examine text data to identify core themes.

The qualitative portion of the mixed methods design included research questions given to the eight participating students. The students, whose individual and parental consent had been granted in writing, were taught using the Socratic method of instruction infused with a Rogerian student-centered approach. The research questions were explored in both a written journal response and six semi-structured, interactive focus groups lasting approximately two hours. These focus group discussions included questions for clarification of responses; it also solicited further anecdotal replies. This procedure was conducted to acquaint the subjects with the Socratic method of instruction infused with a Rogerian student-centered approach, as well as to reveal the students’ perceptions about
this pedagogical practice. The benefits of this research project involved a sharing of knowledge regarding the perceptions of education and the experience of the Socratic method of instruction infused with a Rogerian student-centered approach in a middle school language arts classroom. The data collected was analyzed for themes and patterns in the perceptions that emerged from the journals and the focus groups (Patton, 2002).

Basic Assumptions

1. The Texas Assessment of Knowledge and Skills (TAKS) Test is a valid instrument that measures critical thinking skills in reading, which enhances the academic success and may be learned or improved through pedagogical practices, such as the Socratic method of instruction.

2. A student’s lack of motivation causes low academic performance on standardized tests.

3. The Texas Assessment of Knowledge and Skills (TAKS) Test is a valid instrument for measuring overall success in reading.

4. The Gates-MacGinitie Reading Test (GMRT) accurately assesses a student’s vocabulary and reading comprehension levels.

5. The Standardized Testing Assessment in Reading (STAR) accurately assesses a student’s reading level and Zone of Proximal Development.

6. The Morgan-Jinks Student Efficacy Scale (MJSES) accurately measures a student’s self-perceptions regarding talent, context, and effort.

7. The Student Opinion Scale (SOS) accurately measures a student’s overall motivation.
Delimitations

1. Academic achievement is measured by twelve weeks of the Socratic method of instruction.

2. Self-efficacy is measured by twelve weeks using the Socratic method of instruction.

3. Motivation is measured by twelve weeks using the Socratic method of instruction.

4. Research is limited to a specific population of students in seventh grade in a South Texas middle school who are enrolled in language arts.

Limitations

1. The sample taken in a middle school located in South Texas may not be representative of the population found in other areas of the United States or the world.

2. There exist confound variables for which the research cannot control, such as cognitive sophistication, tolerance of diversity, social class, and other outside factors.

3. It is impossible to determine, conclusively, that the Socratic method of instruction infused with a Rogerian student-centered approach was the determining factor that guided the students’ success on the standardized testing instruments.

Definition of Terms

Achievement (ACH)—as measured by a combined achievement score from the Released Texas Assessment of Academic Skills Test (pretest-2003 and posttest-2004), the Standardized Testing Assessment in Reading, and the Gates-MacGinitie Reading Test (GMRT).
Context— as measured by the Morgan Jinks Student Efficacy Scale (1999) measures the context of schooling, which is referred to as the “sociocultural” context of school.

Education Trust Foundation— a nonprofit organization created to reform, enhance, and redirect the current educational process.

Effort—as measured by the Morgan Jinks Student Efficacy Scale (1999) measures students’ perceptions of the role of their effort in completing a task.

Grades—as measured by the Morgan Jinks Student Efficacy Scale (1999) were measured by the students’ self-reported letter grades in the four major content areas of English language arts, mathematics, science, and social studies and reported on the MJSES (1999). The letter grade scale was as follows: A = student’s average ranging between 100-90, B = student’s average ranging between 89-80, C = student’s average ranging between 79-70, D = student’s average ranging between 69-60, and F = student’s average ranging between 59-0.

Motivation—as measured by the Student Opinion Scale (Sundre, 1999) refers to an initiation, direction, intensity and persistence of behavior (Geen, 1995).

Preventative Intervention—school counseling, which is based on a proactive systematic planning designed to assist students with various concerns (Baker, 2000).

Role of School Counselor—as defined by the American School Counselor Association (ASCA), which falls under the American Counseling Association (ACA).

Student-efficacy—as defined by Jinks & Morgan (1999) is a sense of confidence regarding the performance of specific tasks, which may influence several aspects of behavior, which are important to learning.
Socratic Method—exploratory intellectual conversations centered on a text such as an essay, a technical report, a poem, an artifact, a painting, or a video (Strong, 1997; Lambright, 1995; Copeland, 2005). Note: Socratic method, Socratic circles, and Socratic seminars are used interchangeably throughout this research.

Talent—as measured by the Morgan Jinks Student Efficacy Scale (1999) measures students’ perceptions about their own innate talent or ability.

Teacher-directed Approach—a structured teaching process by which the teacher provides verbal or written information, with no or limited input from the learner (Joyce, B. et al., 1992).

Organization of Remaining Chapters

The study is comprised of five chapters. Chapter 1 has included the introduction, statement of the problem, theoretical perspective, purpose of the study, significance of the study, and a brief description of the population/sample, treatment, instrumentation, data collection, basic assumption, delimitations/limitations, and definition of terms. In Chapter 2, a detailed description of the literature review will be provided. Chapter 3 will include an in-depth description of the mixed methods design, methodology, procedures, and instruments. The research results will be provided in Chapter 4. Finally, Chapter 5 will discuss the results, conclusions, and recommendation for further study.
CHAPTER 2

Review of the Literature

Introduction

The following literature review provides an overall conceptual framework, which includes the role of the school counselor with regard to pedagogy, the middle school adolescent, the Socratic method of instruction infused with a Rogerian student-centered approach, and academic achievement and motivation. This conceptual framework stems from a theoretical perspective based on the Constructivist, Developmental, and Humanistic theories combined. See Figure 2.2 for an illustration of the conceptual framework and theoretical perspective.

Figure 2.2

Conceptual Framework and Theoretical Perspective

- School Counselor/Pedagogy
- Middle School Adolescent
- Socratic Method
- Student-Centered
- Academic Achievement and Motivation

- Constructivist
- Developmental
- Humanistic
Background

In the year 2001, the United States had approximately 3.8 million young adults who were not enrolled in any type of high school education program (Laird, et al., 2006). Moreover, the new math and reading testing requirements of the No Child Left Behind Act (2001) (Clark & Amatea, 2004) have produced even higher dropout rates (Balfanz & Legters, 2001). Due to stringent academic requirements, research on dropout rates and ways in which to reduce these rates continues to increase significantly in the United States (Lewis, 2003).

Conceptual Framework for the Study

Federal Mandates on Education

Public Law 107-110, more commonly known as the No Child Left Behind Act of 2001, was designed to close the achievement gap between disadvantaged and minority students with that of their peers (U.S. Department of Education, 2001). Achievement gaps are defined as inequities in measurable learning among various socioeconomic, gender, and ethnic groups (Brooks-McNamara & Pedersen, 2006). Public Law 107-110 mandates that through the 2004-2005 school year, each state shall administer assessments in reading/language arts and mathematics at least once in grades 3-5, grades 6-9, and grades 10-12. Furthermore, beginning in the 2005-2006 school year, U.S. Department of Education mandates that each state must administer assessments in reading/language arts and mathematics in grades 3-8, and at least once in grades 10-12. Finally, beginning in the 2007-2008 school year, each state must administer assessments in science at least once in grades 3-5, grades 6-9, and grades 10-12. In order for students to be promoted to the next grade level and to eventually obtain a high school diploma, students are required...
to pass all appropriate coursework and the mandated assessments for reading/language arts, mathematics, and science. Moreover, schools have been continuously encouraged to eliminate any form of social promotion. The U.S. Department of Education (2001) defined social promotion as the practice of allowing students who do not successfully meet performance and academic requirements to move on to the next grade level with his or her peers, instead of requiring these students to remain in the grade level in which they failed to meet the U.S. academic standards. Higher academic standards have prompted a more defined focus on academic achievement.

Focus on Academic Achievement

Prior to the No Child Left Behind Act of 2001, accountability rested solely upon the students to achieve in the academic areas tested; however, NCLB requires schools and systems to adequately prepare all students for successful academic achievement (Wiener & Hall, 2004). With higher academic standards placed upon educators by the U.S. Department of Education, a newly concentrated focus on academic achievement emerges to promote and secure educational achievement for all students (House & Hayes, 2002). To ensure that all students make adequate yearly progress toward meeting each state's student academic achievement standards, the No Child Left Behind Act of 2001 requires each state to implement a Single Accountability System (U.S. Department of Education, 2001). Wiener & Hall wrote that the Adequate Yearly Progress, or AYP, under the No Child Left Behind Act (2001) is the focal point of NCLB's accountability system. They reported that the AYP is based upon the following structure: the establishment of clear goals for student learning, the measurement of whether students are attaining these academic goals through standardized assessments, and the
commitment to improving schools not accomplishing set goals for student achievement. Previously, schools were only required to release graduation rates; however, schools are now being additionally held accountable for publicizing information on the academic achievement rates on assessments of students from grades K-12 (Brooks-McNamara & Pedersen, 2006).

Shift in the Role of the School Counselor

Traditionally, school counselors have been excluded from the same accountability standards as other collegian educators; therefore, school improvements have not been directly linked to the efforts of school counseling programs (Dahir & Stone, 2003). Numerous shifts have occurred in the role of school counselors from a focus on vocational guidance (prior to 1950), promoting personal growth (1950s), increasing personal development (1960s), and infusing comprehensive developmental guidance and counseling programs (1970s to present) (Keys, et al., 1998; Galassi & Akos, 2004). The ASCA National Model (ASCA) (2003) ascertains that a comprehensive school counseling program should address the needs of all students from pre-kindergarten to grade twelve in three main domains: academic, career, and personal/social. In alignment with the recent focus on academic achievement, the American School Counselor Association (ASCA) developed the National Standards for School Counseling Programs (Campbell & Dahir, 1997) from which the ASCA National Model ® for School Counseling Programs (ASCA, 2005) was created to decrease the achievement gap addressed in the No Child Left Behind Act, which had increased in the 1990s, as a result of academic inequities (Kaffenberger, et al., 2006). Furthermore, the Education Trust Foundation (2003) contributed significantly to the clarification and development of the
role of the professional school counselor with regard to academic accountability. The standards, models, and clarifications have established a basis from which school counseling programs can perform to optimum levels by identifying school counseling interventions that impact student academic achievement (Poynton, et al., 2006).

The school counselor is the person who hears, sees, and knows more about the external and internal events surrounding the lives of the students both in and out of the school setting (Brooks-McNamara & Pedersen, 2006). By using various data, the school counselor can serve as an integral part of academic leadership teams designed to address the factors limiting or prohibiting children equal opportunities and access to a rigorous curriculum; thus, assisting all stakeholders in increasing equity and achievement for all students.

**School Counselor’s Examination of Pedagogy**

As part of assisting stakeholders in increasing equity and achievement for all students, school counselors can serve as proactive leaders advocating and promoting academic success for all students (House & Hayes, 2002). The goal of the school counselor should be to demonstrate a positive impact on the whole school, as well as, individual students. Within the framework of the ASCA National Model ®, school counselors can increase levels of academic achievement by examining research literature to identify classroom interventions used to promote academic achievement for all students. Acknowledged as being critical to the profession, school counselors have identified, in a recent Delphi study (Dimmitt, et al., 2005), a need for additional research, which examines the outcomes of specific interventions on academic achievement (Poynton, et al., 2006). Working collectively with teachers and other educational
colleagues, school counselors are professionally obligated to be involved in the
development, coordination, and implementation of support systems designed to improve
the academic success of students experiencing difficulty with rigorous academic
programs (House and Hayes, 2002). Additionally, the recent focus on academic
accountability in schools directs school counselors to assume roles of leadership in
collaboration with professional colleagues (Kaffengerber, et al., 2006). House and Hayes
(2002) emphasize that school counselors have a professional responsibility to collaborate
with administrators to provide ongoing support for classroom teachers by assisting them
in becoming sensitive, multicultural educators who hold their students to high standards
by offering high quality instructions. According to Dahir (2004), a component of the
support offered to classroom teachers, with regard to academic achievement, includes the
improvements on educational practices and pedagogy.

*Middle School Adolescent*

Middle school is a time when students develop an indifference towards school and
dropping out of school is considered (Mee, 2000; Eccles, et al., 1993). Research suggests
that middle school is the most appropriate setting to build and sustain motivation in
students; however, problems arise in this area because middle schools are not using
teaching strategies appropriate for the adolescent student (Mee, 2000; Anderman &
Maehr, 1994; Eccles et al., 1993; Harter, 1981). Additionally, researchers concur that the
primary purpose of middle school is the responsiveness of the developmental issues faced
by the adolescent student (Mee, 2000; Armstrong & Savage, 1998; Clark & Clark, 1993;
Eccles, et. al., 1993; Mac Iver & Epstein, 1993). While working with adolescent students,
middle school teachers must develop an in-depth understanding of adolescent
development (Heck, 2003). Furthermore, the middle school teacher should implement active, social, and exploratory methods of teaching and learning concepts outlined by objectives (Mee, 2000).

**Standardized Tests, Critical Thinking, and Reading Skills**

The cornerstone of *Public Law 107-110* focuses on standardized assessments mandating each state prove that it has adopted challenging content and academic standards for student achievement (U.S. Department of Education, 2001; Sec. 1111(b)(1)(A)). With regard to pedagogy, nationally developed and state adapted curriculum and performance standards across the content areas include both instruction and assessment of basic skills to emphasize critical thinking, inquiry, and higher order thinking skills often within the context of real-world problem solving (Sietsinger, 2005; American Association for the Advancement of Science, 1993; National Council of Teachers of English [NCTE]/International Reading Association [IRA], 1996; National Council of Teachers of Mathematics [NCTM], 1989, 1995, 2000; National Research Council, 1995).

In the advent of mandatory standardized assessments used to demonstrate academic abilities, a student’s overall academic performance and ultimate achievement stems from an ability to read efficiently and effectively (Shippen, et al., 2005). The basis of middle school instruction focuses on the acquirement and aptitude of knowledge gained by using reading skills implemented in each specific content area, rather than the acquirement and aptitude of individual reading skills (Kozen, et al., 2006). Moreover, beginning in middle school, students are expected to use reading as a tool to learn, rather than primarily learning to read (Kozen, et al., 2006; Chall, 1983). A student’s ability to
read efficiently and effectively becomes the ultimate determining factor in whether the student graduates and also whether or not students graduate with the necessary skills to function and compete in a global society (Fisher & Ivey, 2005). Additionally, research confirms that applied learning, or hands-on learning, in conjunction with text-based reading functions as an integral part in the learning process to ensure academic achievement for all students on course requirements and mandated assessments, which employ higher level, critical thinking skills (Neufeld, 2006; Anderson, 1998; Anderson & Guthrie, 1999).

The Socratic method of questioning is one of the most influential teaching tools designed to heighten critical thinking skills (Moore & Rudd, 2002; Foundation for Critical Thinking, n.d.). A review of the literature indicates that promoting holistic views of ideas, issues, and values (Mee, 2000; Gary, 1989; Lambright, 1995); constructing significance through dialogue (Mee, 2000; Gary, 1989); and providing insight to systematic questioning (Mee, 2000; Tredway, 1995) supply the fundamental framework for Socratic instruction. Furthermore, since the predominant function of education is to promote reading and thinking skills, designed to help students understand academic materials, research demonstrates that the Socratic method supports a deeper understanding of intellectual materials to confirm academic achievement (Mee, 2000; Strong, 1997).

History of Socrates

The origin of the Socratic method stems from the Greek philosopher, Socrates (470-399 B.C.), who is best known for his immense passion for dialogue and who established a principle maintaining that learning is a process by which knowledge is
sought within each individual (Guthrie, 2000). However, since Socrates viewed himself as an orator, not a writer, historical records from the philosopher himself are unavailable (Scott-Kakures, et. al., 1993; Cordasco, 1965). Nonetheless, a depiction of Socratic philosophy was written by three of his students, who scripted his teachings. The most famous of these scripted teachings, written by Plato, are dialogues entitled, “The Meno” and “The Republic” (Guthrie, 2000). Through these works one learns of Socrates’ philosophy and beliefs, which refute natural philosophy, disapprove of sophistry, and dispute the idea that he “teaches” his follower, but rather subscribes to non-traditional views claiming that knowledge is virtue (Gary, 1989). Socrates and his teachings represented detailed thinking processes and comprehensibly in-depth expression to analyze and evaluate various view points. Socrates maintained that teaching students to think for themselves, rather than teaching the “Right Answer” proved far more valuable to the educational process (Scott-Kakures, et. al., 1993). Socrates was eventually accused, tried, charged, and executed for corrupting the minds of the youth in his contemporary society (Guthrie, 2000). Socrates is now regarded as the “martyr for basic education” (Gary, 1989).

**Socratic Method of Instruction Defined**

The Socratic method of instruction is defined in the literature as dialogue regarding a flow of ideas, centered upon a given text and an initial question whereby students are encouraged to express numerous possibilities (Cordasco, 1965; Gary, 1989; Lambright, 1995; Strong, 1997; Tredway, 1995; Mee, 2000). Research further indicates that social interactions create a society, and the Socratic method of instruction provides students with the opportunity to participate in authentic intellectual and social
interactions (Strong, 1997). The Socratic method removes the principle by which knowledge is transmitted from teacher to student and moves toward students learning by engaging in dialogue with peers; thus, encouraging critical thinking skills (Gary, 1989; Lambright, 1995; Strong, 1997; Mee, 2000).

**Socratic Method of Instruction as Modeled in Various Content Areas**

The Socratic method of instruction has been examined using qualitative research on a third grade reading class to promote higher-level thinking (Shain, 1995). Shain concluded that the Socratic method of open-ended questioning proved to be an effective methodology, as it provided students with the opportunity to collaboratively examine literature, generate interpretive questions, listen to other student’s opinions, debate, and analyze the material from several perspectives.

Furthermore, Mee (2000) qualitatively explored three seventh grade students’ perceptions of the influences one form of Socratic Seminar had on their motivation for learning. The research concluded that the Socratic method enhanced the student’s motivation by capturing their attention, giving them a sense of confidence, and providing relevancy to their lives, which ultimately lead to a heightened sense of overall motivation for learning.

Additionally, Boghossian (2004) researched the qualitative and quantitative effects of using the Socratic method with inmates in Portland, Oregon. Boghossian’s research determined that the participating inmates in the study developed an appreciation for the curriculum; felt empowered, and easily learned the concepts taught in the course. In addition, these inmates exhibited critical thinking via in-depth explanations, evaluations, inferences, and especially process of self-regulation.
The Socratic method of instruction has been used with great success in character education with middle and high school students to prompt meaningful group discussions, where students note the thoughts and feelings of their peers about important issues and ultimately take comfort in knowing that they share many of the same thoughts and feelings (Elkind & Sweet, 1997). According to Elkind & Sweet, the outcome of implementing the Socratic method in character education helps students become ethical, respectful, responsible people who think critically, solve problems nonviolently, and make decisions based on humanitarian compassion, instead of testing the limits of rules and regulations.

In agricultural classes, using the Socratic method proves advantageous for both teachers and students (Moore & Rudd, 2002). The Socratic method serves as a vehicle for teachers to become highly familiar with the material and to predict various student responses in order to develop further questions. The report benefits for students taught using the Socratic method keeps them actively involved in the learning process, annihilating boredom, and requiring them to provide evidence, through research, of the ideas brought to the Socratic forum.

In mathematics class, the Socratic method excites students' curiosity and arouses reflection and deep-thought, rather than suppressing it (Garlikov, 2000). This method helps students distinguish between innovative ideas and erroneous thinking brought about by preconceived notions, knowledge, or beliefs. It also allows students the opportunity to experience the excitement of discovering complex ideas on their own, creating a sense of empowerment; and it provides the mathematics teacher with an understanding of the wealth of knowledge students have to offer.
Ward (1997) wrote that science teachers at all levels, from kindergarten through college, can promote an exploration of environmental factors in an holistic manner by using the Socratic method to encourage techniques of answering a question with a question. Furthermore, the use of this method encourages students to speculate, examine, and question scientific content and can introduce them to new possibilities for enjoying the world around them.

Professor Kaufman teaches a course through the Concord University School of Law, the only accredited law school in the country that is completely online, where Socratic method is used in Web chats and e-mail messages (Carnevale, 2005). Carnevale describes this technology-based class that provides students with the opportunity to discuss not only the facts of the court cases studied, but also the court's thoughts, judgments, philosophies, and opinions that led to the decision, as well. This process allows students to learn from each other's observations.

**Construct and Procedure of Socratic Method**

An understanding of the construct of the Socratic method of instruction is necessary to understand the procedure used for implementation (Mee, 2000). The overall construct includes: (a) the text, (b) the opening question, (c) the leader, (d) the participants, (e) the Socratic circle, (f) approximate length of time necessary, and (g) number of students. The following paragraphs provide an explanation of each part of the Socratic construct.

(a) The text should not be confused with the student's “textbook” used in the class, as the use of the textbook usually serves as a tool for a didactic approach, which does not allow for discussion (Gary, 1989). In the Socratic method, the text used should
generate discussion on ideas, issues, and values. It may include a poem, play, painting, novel, novel excerpt, or essay, which challenges and engages the students (Lambright, 1995). The text should be perplexing to the students and must contain an abstract idea, which is to be read prior to the discussion (Strong, 1997).

(b) The opening question should be asked by either the teacher or the assigned leader after the students have read the given text (Treadway, 1995). The question should be open-ended and involve the students in the process of analyzing and evaluating the given topic. The most effective questions are the ones that spark natural curiosity (Lambright, 1995).

(c) The leader serves as the main characteristic, which differentiates the Socratic method of instruction from a didactic approach (Mee, 2000). The leader shifts the role of the teacher from one of controlled authority to one who maintains in an egalitarian role with the students (Letts, 1994; Strong, 1997). The teacher also engages in the learning process, along with the students (Strong, 1997). The most effective leader is one who leads with an “open, honest, and inquiring mind.” The teacher selects, analyzes, and reads the text in order to construct effective questions used to promote an in-depth understanding of the text for the students involved (Lambright, 1995).

(d) The participants must voluntarily contribute to the discussions regarding the text (Gary, 1989). Students can choose not to participate; however, the teacher should try various strategies to ensure that all students have the opportunity to be heard. The age of the participants can range from 4 to 104 (Mee, 2000).

(e) The Socratic circle or semi-circle is designed to ensure equity among all participants in the seminar (Mee, 2000). The circular layout is designed so that all
participants can easily observe the engagement in the discussions of their fellow classmates. For larger groups, it is recommended to have an outer and an inner circle, so that everyone is included.

(f) An approximate length of time recommended in the literature as being most effective for the process is anywhere from 40 to 90 minutes (Lambright, 1995). For classes just beginning to use the Socratic method or younger students once per week is sufficient; however, it is suggested that the Socratic method of questioning can be practiced as many as three to five times per week (Strong, 1997).

(g) According to the literature, the number of students should be kept to fewer than 25 in order for the Socratic method to be effective (Lambright, 1995; Strong, 1997; Treadway, 1995). The ideal number of participants to foster the best results is twelve to fifteen (Lambright, 1995; Strong, 1997).

The procedure used to implement the Socratic method stems from a connection between critical thinking and Socratic questioning, since both share a common goal in pursuit of meaning and truth. Socratic dialogue fosters a student's inner voice by establishing a safe forum to publicize feelings, ideas, and beliefs (Elder & Paul, 1998). When implementing the Socratic method, teachers should adhere to the following principles:

- Respond to all answers with a further question
- Seek to understand, when possible, the ultimate foundations for what is said
- Treat all assertions as connecting points to further thoughts
- Develop the feelings, ideas, and beliefs through additional inquiry
Socratic Method with Rogerian Student-centered

- Recognize that any thought can only exist fully in a network of connected thoughts
- Provide stimulus for making connections through further questioning
- Acknowledge that all questions presuppose prior questions and all thinking presupposes prior thinking (Elder & Paul, 1998).

Student-centered Approach

Educators and psychologists, alike, believe that the importance of the student outweighs the significance of subject matter (Cassel, 1996). In a student-centered approach to instruction, teachers view students as whole human beings, with diverse physical, psychological, emotional, and intellectual needs that require nurturing and prodding (Cuban, 2006). Person-centered or student-centered learning establishes personally significant learning by integrating new concepts, knowledge, or insights and adds to the learner’s collection of meaningful resources (Motschnig-Pitrik & Mallich, 2004). Derived from the theories of Carl Rogers’ Theory of Therapy, Personality, and Interpersonal Relationships (1959), this approach proposes that students accomplish greater results along with personal growth in areas of higher self-confidence, creativity, openness to new experiences, self-respect, and respect towards others and their environment. The student-centered approach rests upon the teacher acting as a facilitator in assisting students to think through complex texts and situations, while encouraging collaboration and in-depth reflection (Pedersen & Williams, 2004). Pedersen & Williams believe that while supporting the development of problem-solving skills, this approach enhances motivation and allows the students to take ownership of his or her respective
goals and activities, which ultimately makes academic tasks more meaningful and encourages a significant depth of understanding and intrinsic motivation.

**Motivation**

According to the literature, motivation is defined as an individual's own desire to partake in the learning process and place meaning and value in the holistic learning experience (Mee, 2000; Good & Brophy, 1994; Lumsden, 1994). A plethora of literature maintains that when children reach middle school years their level of motivation for engaging in the learning process decreases (Anderman & Maehr, 1994). Literature researching the decline in motivation claims it is attributed to the physical transformation of the adolescent, social and structural changes in the middle school setting, and differences in pedagogical practices at the middle school level. Furthermore, research indicates that the most significant decline in a student's overall motivation in mathematics and English language arts transpires in the middle school among sixth and seventh graders and is partly attributed to issues with self-esteem and a shift in the enthusiasm for learning, which occurs in the transition from elementary to middle school (Eccles, et. al. 1983). As a result of this research, the Stage-environment Fit Theory was developed suggesting that a student's learning environment must be appropriate to the stage of development in order for the student to be motivated to engage in the learning process.

Additional research proposes that providing an environment, which supports students collaborating with peers in learning activities promotes student motivation (Brophy, 1987). Moreover, collaborating with students to determine the direction of the learning process provides an opportunity for students to obtain a sense of responsibility.
and encourages a heightened awareness of the students' motivation for learning (Turner & Meyer, 1995). The Socratic method of instruction infused with a Rogerian student-centered approach fosters an environment in which a student's motivation for learning increases, while levels of anxiety decrease.

Teacher-directed Approach

Teacher-directed instruction is considered the most traditional educational approach occurring within the larger context of the classroom environment and has its theoretical origins in the behavioral psychology (Joyce, B., et al., 1992). It occurs when the teacher delivers content-focused information to students with limited or no feedback from the students with a methodology that is highly structured and sequenced entirely by the teacher (Salsbury, 2006). It is defined as the delivery of factual information via lecture, demonstration, and modeling (Joyce, B., et al., 1992). This approach is considered teacher-modeled with a continuous reinforcement of guided performance, where the main contributions to learning from teacher-directed instruction are task definition and task analysis. It lends itself to the acquisition of organized knowledge delivered from teacher to student, forcing the student to assume a more passive role in the educational process. The underpinnings of this instructional design include principles, which focus on taking learner performance and dividing it into goals and tasks, and then breaking these tasks into smaller component tasks. The structure of teacher-directed instruction involves the teacher:

- selecting and directing the learning tasks;
- determining grouping patterns;
- maintaining a central role during instruction;
• keeping student choice and freedom at low levels; and

• minimizing the amount of nonacademic pupil talk.

Furthermore, due to the highly structured nature of this approach, it may not be suitable for enhancing abstract thinking, creativity, and problem solving. Proficient teachers are said to ask more questions designed to make connections with individual students and the class as whole.

**Teacher-directed Approach versus Socratic Method**

By design, the teacher-directed approach involves the teacher delivering content-focused objectives through lecture, note-taking, modeling, and demonstration, with limited or no feedback from the students (Joyce, B., et al., 1992). In this model, the teacher decides upon the content to be disseminated to the students; therefore, the students assume a more passive role in the instructional process. Research indicates that this approach stifles creativity, abstract thinking, and effective problem solving.

Unlike the teacher-directed approach, the student-centered approach values the whole child, which includes the child’s diverse physical, psychological, emotional, and intellectual needs (Cuban, 2006). Promoting the students’ practice of using prior knowledge and experiences, the teacher fosters the integration of new concepts, knowledge, and insights to enhance the learner’s collection of meaningful academic experiences. The student-centered approach provides an opportunity for students to engage in creativity, abstract thinking, and effective problem solving; thus, developing intrinsic motivation (Motschnig-Pitrik & Mallich, 2004).

Table 1.2 differentiates the discrepancy between teacher-directed instruction and the Socratic method infused with a Rogerian student-centered approach.
Table 1.2

Teacher-directed Approach versus Socratic Method

<table>
<thead>
<tr>
<th>Teacher-directed Instruction</th>
<th>Socratic Method Infused with Student-centered Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers usually</td>
<td>Teachers usually</td>
</tr>
<tr>
<td>• lecture, demonstrate, pose questions, use structured call-and-response activities;</td>
<td>• foster dialogue in a safe environment to provide opportunities for students to engage in the learning process by asking probing questions;</td>
</tr>
<tr>
<td>• assign the same activity to all students;</td>
<td>• plan a sequence of questions to keep the discussion focused;</td>
</tr>
<tr>
<td>• pose questions with one right answer; and</td>
<td>• involve as many students in the discussion as possible;</td>
</tr>
<tr>
<td>• determine what students study.</td>
<td>• are non-judgmental of student responses;</td>
</tr>
<tr>
<td>Students usually</td>
<td>• are not afraid of silences or pauses.</td>
</tr>
<tr>
<td>• listen, copy information, recite answers, practice skills; and</td>
<td>(Moore &amp; Rudd, 2002)</td>
</tr>
<tr>
<td>• recite the knowledge they have been taught in the same form as it was transmitted by the teacher.</td>
<td>Students usually</td>
</tr>
<tr>
<td>(Joyce, B., et al., 1992)</td>
<td>• engage in collaboration with peers to develop an understanding of the content;</td>
</tr>
<tr>
<td></td>
<td>• generate interpretive questions;</td>
</tr>
<tr>
<td></td>
<td>• listen to other student's opinions without being judgmental;</td>
</tr>
<tr>
<td></td>
<td>• annihilate the fear of debate; and</td>
</tr>
<tr>
<td></td>
<td>• analyze material from several perspectives.</td>
</tr>
<tr>
<td>(Shain, 1995)</td>
<td></td>
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</tbody>
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Constructivist Theories

Constructivism proposes that “much of learning originates from inside the child” in which activities, discourse, and interactions occur simultaneously with others (Mee, 2000; Kamii & Ewing, 1996). This theory suggests that learning must be active to have significance to the learner (Mee, 2000; Grennon, et al., 1993).

John Dewey and the Theory of a Child-centered Curriculum. John Dewey, a distinguished American philosopher and educator, established the underpinnings behind learner-centered education, a program that later became known as Constructivism (Henson, 2003). Dewey believed children were naturally inclined to follow a sense of innate curiosity, which sparks a desire to know and enjoy imagining objects and situations they encounter to discover the purpose and deduce functions in society; therefore, he proposed that teachers promote educational environments in which children could develop through open-minded curiosity and warned against suppressing it by structured routine and rigidity (Gutek, 2005). Henson (2003) ascertains that Dewey considered life to be a process of continuous renewal, consisting of a series of on-going experiments in which a child would develop to full potential in social settings. In order to
assure attentiveness in an academic setting, Dewey believed that “if we can secure interest in a given set of facts or ideas, we may be perfectly sure that the pupil will direct his energies toward mastering them . . . if we have not secured interest, we have no safeguard as to what will be done in any given case (Dewey, 1913, 1975). Dewey’s principle regarding the use of curiosity to encouraged children to develop a desire to know sets the cornerstone for utilizing the Socratic method of instruction infused with a Rogerian student-centered approach in this research.

*Lev Vygotsky and the Zone of Proximal Development.* The Russian psychologist and sociologist, Lev Vygotsky, studied children as they collaborated to solve problems and concluded that working collectively proved to be more efficient than working alone (Henson, 2003). Vygotsky suggests that cognitive development is a combination of the child and the culture and believed that schools acted as the social environment in which children interact with others; therefore, dividing social and cognitive development could not be possible (Mee, 2000). He also asserts that “all higher mental functions originate in social activity” (Hausfather, 1996).

From his research and observations of the social and cognitive development of children, Vygotsky structured a theory he called the Zone of Proximal Development (ZPD), which he defined as the "actual developmental level as determined by independent problem solving" and the "potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978). The *Standardized Testing Assessment in Reading* (S.T.A.R.), used in this study, offers a Zone in Proximal Development score as part of the results.
Jean Piaget and the Theory of Cognitive Development. The child psychologist and educator from Switzerland, Jean Piaget, devoted approximately sixty years researching and gathering a plethora of data on the intellectual development of children from birth to adolescence (Wadsworth, 1996). He was concerned with the ontogenetic changes, which are the developmental changes that occur in an individual, with regard to cognitive and intellectual functioning. Piaget proposes that the mind has structures, similar to those of the body, which help explain responses to stimuli and memory through, what he called schema. Schemata, the plural of schema, help a person assimilate and systematize the environment using cognitive or intellectual structures. Piaget believed the sensorimotor schemata of the child constructed the schemata of an adult. Assimilation and accommodation are the two processes responsible for change. Assimilation refers to patterns of behavior developed by perceptual, motor, or conceptual matter in existing schemata. Accommodation refers to creating new schemata to replace the stimulus or modify the existing schemata to correspond with the existing environment. Piaget asserted that equilibrium created a balance between assimilation and accommodation, while disequilibrium was the imbalance between the two. He believed that critical thinking was not a separate entity from regular thinking. He assumed that critical thinking and problem solving are increased by increasing the child's intellectual development via nurturing the temperament, yearning, and self-confidence of the child to engage in problem solving.

Piaget viewed pedagogy as a science and believed that teachers were constrained by rigid programs and methods established by governmental dictation (Singer & Revenson, 1996). He proposed that universities engage in further research in teacher-
training curriculum. The beliefs brought forth by Piaget serve as a vehicle to understand the cognitive development of the child and support the need to conduct research in curriculum.

_Developmental Theory_

In its earlier phases, the psychoanalytic theory of development focused primarily on the developmental stages of humans from infants to the young adult; however, in later years, an expansion on the child tasks at each stage of Freud’s theory of development was created to include stages addressing the stages of personality throughout the life span (Crain, 2005). With the exception of infancy, the early adolescence phase of life experiences the most rapid and significant developmental changes and is recognized in the United States as the beginning of the custom encompassing the rite to passage (Akos, 2005).

_Erik Erikson and the Theory of Psychosocial Development._ The leading Danish researcher and once Harvard professor, Erik Erikson, made significant contributions to the field of human development (Carducci, 1998). He believed that stages of development occur in a specific sequence and build upon each previous stage. This is known as the epigenetic principle. Furthermore, he asserts that “crisis” occurs in each stage of development. One must create a balance between the individual’s needs and the societal expectations in order to manage a successful resolution in each psychosocial crisis. Finally, he believed that in order to resolve each crisis at every stage, “basic virtues” are needed to assist the ego in developing a heightened level of trust. With regard to Freud’s psychosexual development, Erikson expanded on the child’s tasks at each
stage (Crain, 2005). Additionally, Erikson provided three new stages to Freud’s stages of psychosexual development; thus, creating a theory, which includes the entire life cycle.

Erikson’s contributions to Freud’s psychosexual stages created the theory of psychosocial development, from which stems the Eight Stages of Life signifying the development of the ego. Stage Five of the Eight Stages of Life revolves around what Erikson called *Ego identity vs. role confusion*. At this stage, the psychosocial “crisis” occurs from 12 years of age to approximately 18 or 20. *Ego identity* refers to a person’s attempt to establish a belonging to a society, while *role confusion* brings about anxiety regarding a person’s place in society.

Erikson asserts that adolescents seek to find relativity within the global context (Hamman & Hendrick, 2005). The areas in which mental tasks occur include identifying, evaluating, and selecting values and roles necessary for success when they reach adulthood. According to Erikson (1959, 1994), “The function of the identity search is to discover the standards for adulthood and to select from those standards what is truly important.” Research conducted by Hamman & Hendricks (2005) suggests that a vital role of the teacher is to become a “sanctioner” of capabilities of the adolescent; thus, communicating to students that their talents and potentials have been perceived as valuable in an adult world; hence, the Morgan Jinks Student Efficacy Scale (1999) measures talent to ascertain the students’ perceptions about their own innate talent or ability. The Socratic method of instruction infused with a Rogerian student-centered approach enables the process of conveying to the student that their capabilities correlate in a positive manner with adult roles and standards and can, thus, be implemented in the future.
Humanistic Theory

Humanistic theory exhibits respect for one's personal experience and has confidence in a person's ability to make positive and constructive choices (Corey, 2001). This theory emphasizes freedom, choice, values, personal responsibility, autonomy, purpose, and meaning. It posits that one has a natural potential to reach actualization and ultimately find meaning.

Carl Rogers and the Experiential Theory of Learning. American-born spokesperson for humanistic psychology, Carl Rogers, conducted extensive research for nearly half a century (Corey, 2001). According to Rogers (1969), the qualities, which facilitate self-initiated, experiential learning include: realness or genuineness in the facilitator of learning, prizing, acceptance, trust, and empathy. Realness or genuineness is defined as "the facilitator entering in a relationship with the learner without presenting a front or a façade" (p.107). Furthermore, the facilitator "comes into a direct personal encounter with the learner, meeting him on a person-to-person basis, and he is being himself, not denying himself" (p.107). Prizing is described as prizing the learner's feelings, opinions, and person, which exemplifies caring for the learner that is non-possessive. Acceptance occurs when the facilitator reveals "a considerable degree of attitude to fully accept the fear and hesitation of the student as they approach new information . . . acceptance of the student's apathy, erratic desires to explore by-roads of knowledge, as well as his disciplined efforts to achieve major goals" (p. 109). Trust is a student's "belief that this other person (the facilitator/teacher) is somehow fundamentally trustworthy" (p. 109). Empathy occurs when "the teacher has the ability to understand the
student’s reactions from the inside, has a sensitive awareness of the way the process of education and learning seems to the student” (p. 111).

As far back as 1939, Carl R. Rogers, while not labeling them as such, recognized the importance of implementing realness or genuineness in the facilitation of learning, prizing, acceptance, trust, and empathy. In his seminal work, *The Clinical Treatment of the Problem Child*, regarding school’s part in changing behavior, he notes that “The curriculum which is chosen must be one adapted to the child” (p. 231). Furthermore, Rogers states that “In giving the difficult child some sense of accomplishment, the alert teacher will make particular use of any special talent or interest or hobby of the child” (p. 232). Once again, the Morgan Jinks Student Efficacy Scale (1999) measurement of talent to ascertain the students’ perceptions about their own innate talent or ability is revealed. Additionally, with regard to children with special needs, he claims, “...it is important to deal with the child’s attitude as well as with his deficiency”. Rogers posits that it is important to “give the child pride in his own accomplishment”. Also, as a measurement of empathic response and genuineness, “the teacher must genuinely feel that each child has a need to succeed, just as she herself has a need to succeed” (p. 235). Finally, in support of this mixed methods research design, using the Socratic method of instruction infused with a Rogerian approach, Rogers notes that “One of the ways in which the teacher may be of constructive help with the insecure, attention-getting child is by increasing the legitimate opportunities for attention” (p. 237). Since the Socratic method is based almost entirely upon the solicitation of student responses, the premise set forth by Rogers regarding “increasing the legitimate opportunities for attention” comes to fruition when implementing this pedagogical practice.
Summary

This mixed methods research design, supported by the related literature and theoretical framework, exemplifies the efficacy of implementing a Socratic method of instruction infused with a Rogerian student-centered approach in language arts classes to increase academic achievement in reading and student motivation. Additionally, since United States federal government mandates such as Public Law 107-110 have required states to close the achievement gaps between all children, higher academic standards including elevated expectations of critical thinking and reading skills have been established.

This focus on academic achievement has called for the school counselor to assume a proactive role in academic leadership collaboration with administrators, teachers, and students; thus, establishing higher “accountability” rates for the academic achievement domain regarding the role of the school counselor as defined by ASCA (2003). The school counselors’ role in collaborating with teachers as a measure to enhance academic achievement includes an examination of current pedagogical practices. One such practice is that of the Socratic method of instruction. This practice consists of sensitivity and quality instruction, which produces meaningful learning and an overall positive learning experience.

Research supports that hands-on experiential learning infused with text-based reading plays an integral part of a student’s learning process. The teaching tool, which heightens critical thinking skills, promotes holistic ideas and values, uses dialogue, and supports a student’s motivation for meaning learning experiences is found in the Socratic method of instruction. A student’s motivation to learn stems from the desire to own his or
her own goals and ambitions. The research literature asserts that motivation declines significantly in the developmental stages of the middle school adolescent.

In this chapter, the theoretical framework providing the underpinnings for this mixed methods research design included the examination of John Dewey's theory of a child-centered curriculum, Lev Vygotsky's Zone of Proximal Development, Jean Piaget's theory of cognitive development, Erik Erikson's theory of psychosocial development, and Carl Rogers' student-centered approach. The subsequent chapter describes the methodology implemented in this mixed methods research design to examine the efficacy of implementing a Socratic method of instruction infused with a Rogerian student-centered approach in language arts classes to increase academic achievement in reading and student motivation.
CHAPTER 3
Methodology

Following the premise proposed by Greek philosopher, Plato, "Do not train children to learning by force and harshness, but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each" (Hazlehurst, 2004), the exploration of significance in learning and teaching styles remains on a constant continuum towards meaningful actualization. The following chapter presents information on the quantitative and qualitative methods utilized in this mixed methods research design. According to Patton (2002), the quantitative approach provides a "comparison and statistical aggregation of the data". Concurrently, the qualitative approach infuses a "depth, openness, and detail" to the findings.

At the time the study was conducted, the dropout rate for students at the high school level was at 10.9% and was expected to increase significantly as higher demands are being placed upon students to exhibit academic achievement via mastery of standardized exit testing as a prerequisite for obtaining a high school diploma (Laird, et al., 2006). In the advent of a stringent academic focus, school counselors are recently being held more accountable to demonstrate their role in promoting academic achievement (Gysbers, 2004). According to the American School Counselor Association (2003), "School counseling programs promote school success through a focus on academic achievement, prevention and intervention activities, advocacy, and social-emotional and career development".
The newly emergent role of the school counselor, with its focuses on academic achievement, has created a vital need to explore various avenues of ensuring student success. In 2003, the Education Trust and MetLife Foundations established the National Center for Transforming School Counseling (NCTSC). This center serves as a hub of information to assist school counselors in addressing the new focus of accountability toward academic achievement. According to Education Trust, the center offers the necessary training, tools, and data needed to meet the needs of all students served (Education Trust, 2003). According to Kati Haycock, Director of the Education Trust upon announcing the new Center, “School counselors are ideally positioned to serve as advocates for students and create opportunities for all students to reach these new high academic goals”. Limited research exists addressing the school counselor’s preventative intervention role in advocating academic success for all students via a focus on pedagogical practices designed to enhance academic achievement and motivation; therefore, this study could add to the literature regarding the school counselor’s role in promoting academic advancement by examining the pedagogical practice of the Socratic method of instruction infused with a Rogerian student-centered approach.

Study of Mixed Methods Research Design

The approach used in this study involved a mixed methods research design to understand the experience and determine the efficacy of using a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom. The approach used in this study involved a mixed methods research design, which included a quantitative and qualitative portion. The quantitative portion had 46 participants in the treatment group and the control group had 36
participants, for a total of 82 students of varied levels of reading competence, ethnicity, and gender.

Quantitative

Research Questions—Quantitative

1. What are the primary effects of implementing the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom on standardized tests scores in reading?

2. How does using the Socratic method of instruction infused with a Rogerian student-centered approach affect students' grades in the four major content areas (language arts, math, science, and social studies)?

3. How is overall student motivation affected by using the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom?

4. To what extent does using the Socratic method of instruction infused with a Rogerian student-centered approach influence students’ talents in school?

5. How does using the Socratic method of instruction infused with a Rogerian student-centered approach relate to the students’ perception of context?

6. What are the affects on the students’ efforts on tests while using the Socratic method of instruction infused with a Rogerian student-centered approach?
Statement of the Hypotheses

The following general null hypotheses were developed for analyses in this mixed methods study based upon an overall achievement score, grades, motivation, talent, context, and effort. The overall achievement score (ACH) is a compilation of the three reading assessments: Released TAKS Reading Tests (Texas Education Agency, 2003), namely the 2003-pretest and 2004-posttest, the Gates-MacGinitie Reading Test (Gates & MacGinitie, 2000) Forms S and T, and the Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998). The Morgan Jinks Student Efficacy Scale (MJSES) was used to measure self-reported grades, as well as perceptions and beliefs regarding talent, effort, and context (Jinks & Morgan, 1999). Grades were measured by the students’ self-reported letter grades in the four major content areas of English language arts, mathematics, science, and social studies and reported on the MJSES (1999). The letter grade scale was as follows:

- A = student’s average ranging between 100-90,
- B = student’s average ranging between 89-80,
- C = student’s average ranging between 79-70,
- D = student’s average ranging between 69-60, and
- F = student’s average ranging between 59-0.

Talent measured students’ perceptions about their own innate talent or ability. Effort was measured by the students’ perceptions of the role of their effort in completing a task. Context measured the context of schooling, which is referred to as the “sociocultural” context of school. Motivation was measured by the student’s academic interest in school revealed in the Student Opinion Scale (SOS) (Sundre, 1999).
Null Hypothesis 1: There will be no significant difference in the pretest and posttest achievement scores between the treatment and control group mean scores.

Null Hypothesis 2: There will be no significant difference of grades students earn between the treatment and control group mean scores.

Null Hypothesis 3: There will be no significant difference in motivation between the treatment and control group mean scores in the pretest and posttest scores.

Null Hypothesis 4: There will be no significant difference in talent between the treatment and control group mean scores in the pretest and posttest scores.

Null Hypothesis 5: There will be no significant difference in context between the treatment and control group mean scores in the pretest and posttest scores.

Null Hypothesis 6: There will be no significant difference in effort between the treatment and control group mean scores in the pretest and posttest scores.

Population and Sample Selection

This study was conducted in a middle school located in a large school district in South Texas. The school had an enrollment of approximately 825 students, of which 240 were in the seventh grade. The school was composed of grades sixth, seventh, and eighth grade students, whose ages were between 11 and 16. The ethnic breakdown of the population revealed that the school was composed of 18% White, 74% Hispanic, 6% Black, 1% Asian, and less than 1% Native American.

Written permission from Institutional Review Board at Texas A&M University in Corpus Christi was obtained prior to the study. Participation in this study was based on a
convenience sample, as all students are required to take this English language arts class. The participants for the quantitative portion of the study were selected at random by the *Pentamation System*, which is a computer-based program that randomly selects the students' respective schedule of classes. All data collected for this project was included in the official Campus Improvement Plan (CIP) at the middle school for the 2005-2006 school year and was approved by the principal of the school where the study took place.

*Sample—Quantitative*

The quantitative portion of the study was comprised of 82 seventh grade students. Forty-six students were part of the treatment group, taught using the Socratic method of instruction infused with a Rogerian student-centered approach, while 36 students formed the control group and were taught using a teacher-directed approach. The students receiving the teacher-directed approach (Joyce, B, et. al, 1992) received the Socratic method of instruction infused with a Rogerian student-centered approach after the twelve-week period, in order to concur with ethical practices. The students in both the treatment group and the control group were representative of the ethnic breakdown of the school.

*Instrumentation—Quantitative*

The instruments used to assess the quantitative portion of the study generated by the data were three forms of standardized reading tests: the Released Texas Assessment of Knowledge and Skills Reading Tests (TAKS), namely the 2003-pretest and 2004-posttest (Texas Education Agency, 2003), the Gates-MacGinitie Reading Test (GMRT) Forms S and T (Gates & MacGinitie, 2000), and the *Standardized Testing Assessment in Reading* (S.T.A.R.) (Richards, 1998). These three instruments were combined to form the
one achievement score analyzed in the results. The two questionnaires in this study were
the Morgan Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999), which
measured student efficacy using students’ self-reported grades and perceptions regarding
talent, context, and effort. The Student Opinion Scale (SOS) (Sundre, 1999) measured the
students’ overall levels of motivation.

*Texas Assessment of Knowledge and Skills Reading Tests (TAKS).* The Texas
Assessment of Knowledge and Skills Reading Test (TAKS) is a criterion-referenced
standardized test, which was developed to measure a student’s minimal reading
proficiency (Texas Education Agency, 2003). This criterion-referenced assessment is a
test that all Texas public school students have been required to take since 2003. Prior to
2003, a similar test, the Texas Assessment of Academic Skills or TAAS Test, was
administered to all students in this same manner; however, this instrument was norm-
referenced, as opposed to criterion-referenced.

The TAKS test was developed by classroom teachers, curriculum specialists,
specialists in the area of test development, and personnel from the Texas Education
Agency. This reading assessment contains six to eight reading selections, which are
fiction and factual works combined, with approximately six to eight test items after each
reading section for a total of forty-eight questions. The TAKS Test was used in this study
as part of the overall reading achievement score measuring the students’ academic
achievement. The test is a state-developed test given to all students attending public
schools in Texas from grades three to twelve and is designed to measure the students’
knowledge of the mandated statewide curriculum. Statistical measures were conducted by
the Texas Education Agency to ensure that a standardized passing criterion existed for
each test administration. As a result, minor shifts occurred regarding the total number of items that needed to be answered correctly in order to meet minimum expectations on a yearly basis. The TAKS Test is an effort to test mastery of academic skills based on the Texas Essential Knowledge and Skills (TEKS) curricular guidelines. Results of the TAKS test are reported annually at the student, campus, district, regional, and state levels. All TAKS tests are then released to the public at the end of every other school year.

Reliability studies on the TAKS test focus on ensuring that the test measures what it purports to assess. Internal consistency of the TAKS test data has been assessed using the Kuder-Richardson Formulas 20 and 21 (KR-20 and KR-21). Kuder-Richardson 20 is used yearly by the Texas Education Agency in relationship to all exams at all levels. A range of 0.86 to 0.91 was reported by the Texas Education Agency for the 2003 administration in the area of reading.

With regard to the validity of the TAKS Reading Test, the Texas Education Agency (2003) measures content, construct, and criterion-related validity. Content validity is based and tied directly to the statewide curriculum. The tested construct of this instrument is the academic content required by the statewide curriculum. With curriculum-based achievement tests, both content and construct validity are intertwined. The construct validity is grounded in the content validity of the test. Criterion validity can be evaluated concurrently, or at a future point in time, and is then correlated with the test score. The test score is compared with a criterion that is thought to be a reasonable estimate of the same construct the original test poses to measure.
Gates-MacGinitie Reading Test (GMRT). The Gates-MacGinitie Reading Test (GMRT) is a normed-referenced standardized test, which was developed to measure a student’s reading proficiency (Gates & MacGinitie, 2000). The GMRT was selected for this study because it is an established standardized assessment with documented psychometric properties frequently used with young children regarding reading proficiency. The GMRT is a group-administered paper and pencil assessment that shares the format and procedures with other assessments, such as the Iowa Test of Basic Skills and the California Achievement Test. These tests are used to gauge educational quality in states across the country. The reliability of this testing instrument has been measured by various studies and results in a reliability level of .85.

With regard to the validity of the Gates-MacGinitie Reading Test, numerous studies have been conducted to measure the content, construct, and criterion-related validity since its creation in 1964. This instrument has been used throughout the United States for over forty years.

Standardized Testing Assessment in Reading. The Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998) offers sound estimates on students’ reading levels relative to national norms. The Standardized Testing Assessment in Reading or S.T.A.R. Reading® Version 2.2 is a computer-adaptive reading test and data base “allowing teachers to . . . [quickly] assess students’ reading abilities.” The authors and publishers of the S.T.A.R. Test are Renaissance Learning, Inc.. The publication dates are 1996-2002. This norm-referenced test is designed to determine the instructional reading levels of students from grades one through twelve, compare students’ performance to national norms, and track an individual’s growth in reading across the
grade levels. The program allows the tester to add and enroll students; edit records; move information about students from one grade to the next; add and delete whole classes; and generate, customize, and print reports. A student may take the STAR Reading Test up to five times during a single year, because the computer program keeps track of the questions the student has been given previously.

Test-retest reliability across an interval of measurement and the variance of the IRT-based observed variance resulted in an overall coefficient across grades of .95 and ranged from .82 to .89 within grades. Construct validity was examined using test scores from a variety of other reading measures that were separated in time, in certain cases, anywhere from one to three years. For Grades 1 through 6, validity coefficients generally ranged from .36 to .97. For Grades 7 to 9, coefficients ranged from .44 to .89 using the California Achievement Test, Comprehensive Test of Basic Skills, Explore, Gates-MacGinitie Reading Test, Iowa Test of Basic Skills, Missouri Mastery Achievement Test, and the Metropolitan Achievement Test. A comparison with the Stanford Achievement Test revealed coefficients that ranged from .25 to .90. No concurrent validity was reported. This testing instrument also measures each student’s Zone of Proximal Development, which was designed by Lev Vygotsky (1962) and is defined as the "actual developmental level as determined by independent problem solving" and the "potential development as determined through problem solving under adult guidance or in collaboration with more capable peers."

The computerized testing program itself involves 25 fill-in-the-blank sentences followed by a list of three to four possible answers from which the student must select. Difficulty levels are driven by a student’s responses; that is, difficulty level rises with
each correct response and reduces with each incorrect response (referred to as Adaptive Branching™). Time for each question is limited to 60 seconds for the first and second grades. A limit of 45 seconds is imposed for the first 20 questions and 90 seconds for the longer, final 5 questions for Grades 3 through 12. The students are supplied with a visible clock in the corner, which warns them 15 seconds before their time runs out. Unanswered questions are counted as incorrect responses. The scores are given as TOTAL SCORE only. Testing time is approximately ten minutes. Item response theory (IRT) is used to support item calibration, ability estimation, and the Adaptive Branching™ process. Grade equivalents, normal curve equivalents, scaled scores (ranging from 0-1,400), instructional reading level scores, and percentile ranks are all available.

The Educational Development Laboratory Revised Core Vocabulary provided the reference for the grade level vocabulary words used in the test items and items were reviewed for cultural, ethnic, or gender bias or language that might be considered offensive. Items were calibrated for difficulty in a study initiated in 1998 (N = 27,807) using both traditional item analysis techniques and the Rasch model. The original 2,133 items were reduced to 1,409. These items were then ordered from easiest to most difficult. Norming of the STAR Reading Test took place in the spring of 1999. The sample was large (nearly 30,000 students) and representative of the four general regions of the United States, type of school system (i.e., public vs. non-public), socioeconomic status, and racial/ethnic makeup.

Morgan-Jinks Student Efficacy Scale. Student efficacy was assessed via the Morgan-Jinks Student Efficacy Scale (MJSES), which was designed to gain information about student efficacy beliefs that might be related to school success (Jinks & Morgan,
Social learning theory ascertains that self efficiency is a sense of self-perceived confidence in relation to the performance of specific tasks. Thus, one’s perception of self efficiency may influence various facets of behavior important to learning, namely choice of activities, effort, persistence, learning, and achievement.

Albert Bandura (1977, 1982) is considered a renowned self efficiency theorist, who ascertains that “individuals develop general anticipation regarding cause and effect based upon experience.” He also takes into account that specific beliefs regarding an individual’s specific coping abilities are developed within situation-specific constructs. The authors of this instrument assert that the underpinnings of this instrument emerge from a general exploratory study which seeks to provide evidence of Bandura’s beliefs of self efficiency regarding a child’s sense of overall academic success.

This scale has undergone extensive development to assure validity and reliability using DeVellis’s (1991) Scale Development: Theory and Application for primary guidance. According to Jinks & Morgan (1999), the initial version of the scale consisted of 53 items that were generated by the authors and subjected to content validity evaluation by three separate panels. The first panel consisted of five university-level teacher educators, the second of four middle school teachers, and the third of 15 public school students representing grades 4-8. This process led to the current instrument, which contains 30-items with an overall reliability coefficient of .82.

The 30-item instrument is divided into three sub-scales, namely talent, context, and effort. Talent measures students’ perceptions about their own innate talents or abilities. Sample items of the subscale measuring talent are as follows:

27. I am smart.
6. I am a good language arts student.
26. It's not hard for me to get good grades in school.

Effort measures the students' views regarding the role of their effort in completing a task. Sample items of the subscale measuring effort are as follows:

1. I work hard in school.
5. Most of my classmates work harder on their homework than I do.
9. I always get good grades when I try hard.

Finally, context measures the context of schooling, which is referred to as the "sociocultural" context of school. Sample items of the subscale measuring context are as follows:

4. I would get better grades if my teacher liked me better.
8. I go to a good school.
15. I will graduate from high school.

With regard to the alpha levels for each subscale, talent had a Cronbach's Alpha level of .78, context had a Cronbach's Alpha level of .70, and effort had a Cronbach's Alpha level of .66. All items were designed for a Likert Scale response format using a four interval scale of

1 = "Really Agree,"
2 = "Kind of Agree,"
3 = "Kind of Disagree," and
4 = "Really Disagree."

The informal nature of the response categories was an attempt to make the choices consistent with children's language patterns and similar descriptors such as "not
sure," "maybe," "pretty sure," and "real sure" have been used by other researchers (Schunk, 1981).

In addition to talent, context, and effort, Grades were measured by the students' self-reported letter grades in the four major content areas of English language arts, mathematics, science, and social studies and reported on the MJSES (1999). The letter grade scale was as follows:

- **A** = student's average ranging between 100-90,
- **B** = student's average ranging between 89-80,
- **C** = student's average ranging between 79-70,
- **D** = student's average ranging between 69-60, and
- **F** = student's average ranging between 59-0.

The utilization of this instrument in this study was designed to provide an in-depth understanding of the students' sense of academic efficacy that might be related to school success. Additionally, this instrument may offer critical implications for both national curriculum, program development, and overall instructional strategies.

*Student Opinion Scale.* Motivation was determined using the Student Opinion Scale (SOS) (Sundre, 1999). Wolf and Smith (1995) first published this motivation scale, which consisted of eight items. This eight item scale was considered one-dimensional, and researchers using the scale found two orthogonal factors measuring Importance (5 items) and Effort (three items). After further investigation of the instrument, Sundre (1999), added two items and changed the wording of some of the items in an effort to redefine and enrich the two factors. The original Motivation Scale was modified to create
the Student Opinion Scale (SOS). This instrument is comprised of 10 items using a five-point Likert Scale format ranging from:

A = "Strongly Disagree"
B = "Disagree"
C = "Neutral"
D = "Agree"
E = "Strongly Agree"

Responses to items are summed to form three scores: Total Motivation, Importance, and Effort. Four of the ten items (3, 4, 7, and 9) should be reverse-coded prior to scoring and analysis. The Total Motivation score is determined by summing responses to all ten items. The Importance scale, derived by summing responses to items 1, 3, 4, 5, and 8, provides a measure of the personal relevance of the test to the examinee. The remaining items, 2, 6, 7, 9, and 10, form the Effort scale, designed to measure of the level of effort in which students engaged during the assessment task. For the purpose of data analysis, the researcher in this mixed methods study gave numeric values to the letters in the Likert Scale found in this instrument. Following the reverse-coding procedure, higher scores indicate greater self-perceived levels of motivation. The following information shows the numeric assignments:

1 = A "Strongly Disagree"
2 = B "Disagree"
3 = C "Neutral"
4 = D "Agree"
5 = E "Strongly Agree"
Estimated reliability for students taking a paper and pencil administration of the SOS (1999) on assessment day resulted in an alpha reliability of .84. A substantial amount of validity evidence has been found for the SOS (Sundre, 1999; Sundre & Wise, 2003). A copy of the SOS, along with its scoring guide, was downloaded from the Internet using the following URL: www.jmu.edu/assessment/mot.shtml.

**Intervention/Treatment**

The treatment (Independent Variable) will consist of a twelve-week period (approximately 60 days) of instructional sessions utilizing the Socratic method of instruction (Strong, 1997; Copeland, 2005) infused with a Rogerian student-centered approach (Rogers, 1939, 1969, 1977, 1983) for one hour in length, five times a week, totaling sixty hours of treatment.

The Socratic sessions included four thematic units, namely perception, reality, empathy, and relativity. The units were based upon the literary works of Emily Dickinson, Edgar Allan Poe, Walt Whitman, Charles Dickens, Jerry Spinelli, Martin Luther King, William Wordsworth, Theodore Geisel, and Maya Angelou. In addition to the literary works of historical and contemporary authors, the students also analyzed the works Vincent Van Goth, Salvador Dali, and Albert Einstein. A sample lesson of Walt Whitman’s poem, “When I Heard the Learn’d Astronomer,” is provided in Appendix H.

**Developmental Process of the Socratic Method**

Three key areas must be considered to effectively implement the Socratic method in the classroom (Copeland, 2005). These three areas are the classroom climate, the teacher’s role, and the students’ roles in high-quality dialogue. With regards to classroom climate, the facilitator’s job is to foster and monitor the classroom emotional climate by
lessening the students’ fears of being proved wrong, being judged, or ridiculed. In view of the teacher’s role in the Socratic sessions, the facilitator must ensure that high-quality text, promoting discussing, is selected for the sessions. Finally, considering the students’ roles in high-quality dialogue, the facilitator needs to encourage high-quality dialogue while monitoring the progression of each session.

It is important to mention that the Socratic method of instruction, Socratic literature circles, Socratic seminars are used interchangeably throughout this research. The researcher used the process outlined in the flow chart in Figure 3.3 to implement the developmental process of the Socratic method infused with a Rogerian student-centered approach.
Integrative Developmental Model of Implementing the Socratic Method with a Student-Centered Approach in the Classroom

August-October
- Cognitive Behaviorist
  - Fostering a Rationale for Rules and Consequences
  - Cognitive Assessment Baseline

October-May
- Humanist Approach
- Socratic Method with a Student-centered Approach

May-∞ (infinity)
- Existential Approach
- Intrinsic Motivation

Diaz, 2006
Sample of Socratic Dialogue

The Socratic method is defined as exploratory intellectual conversations centered on a text such as an essay, a technical report, a poem, an artifact, a painting, or a video (Elder & Paul, 1998). The leader's task is to:

- assess the abilities of the group members,
- choose a text,
- conduct a close reading of the text for literal understanding,
- reread the text for deeper levels of meaning, and
- develop an opening question that connects to both the text and the audience.

Socratic method differs from discussions in that the focus is on dialogue, critical thinking, and the opening question, rather than directly stating a set "correct" answer to a closed question.

Sample of Socratic Method of Instruction Infused without Using a Rogerian Student-centered Approach

The following illustrates the Socratic dialogue without the infusion of a Rogerian student-centered approach used in a seventh grade language arts class:

Teacher: The name of this course is language arts. Why do you think it is given this name?

Gary: It's the art of language.

Teacher: What is language?

Gary: Language is a way that people communicate with each other.

Teacher: What is communication?
Angelica: Communication is when two people talk to each other.

Teacher: Does communication occur only when "two" people talk to each other?

Angelica: No, I guess it happens when two or more people talk to each other.

Teacher: Do people have to talk to communicate?

Carlos: No, I think people can send signals to each other, like the Indians, I mean, Native Americans do sometimes.

Teacher: What are some other forms of communication?

Deven: You can communicate with your eyes, too. Like when my little brother talks in church, my mom just has to look at him, and he stops talking and starts listening to the preacher, again.

Teacher: Are there any other ways to communicate?

Deven: A person can communicate by making faces. Like sometimes my dad is mad because his football team lost the game, so he will frown all day. Or if he sees me behaving in church, he will smile and wink at me.

Teacher: How important is communication in our lives?

Jamie: Communication is very important in our lives.

Teacher: Can you explain how communication is important in our lives?

Jamie: Well, I know that if adults don't communicate, they end-up getting a divorce, which is what happened with my parents.

Teacher: So you see communication as being important in a marriage?

Jamie: Oh yes! If you can't talk to each other about your problems or your dreams, then you have no business getting married.

Teacher: Okay, some good ideas are flowing. Any other thoughts about communication?
Beverly: I just want to say that agree with Jamie. My parents are separated and my mom says it's because she and my dad just can’t seem to talk things out anymore.

Teacher: Thank you for sharing, Beverly. I know it's difficult to share personal concerns with the rest of the class.

Beverly: You're welcome. I like this class, because I can say what I'm feeling without somebody laughing at me or looking at me like I'm a weirdo.

Teacher: This class is full of such intelligent students. I really appreciate all of your responses. Today we are going to begin to study the five parts that make-up this language arts class. You have discovered the first part yourselves, and that is communication. Your assignment for tonight is to brainstorm and come up with a list of what you think the remaining four objectives are in this language arts class.

Good luck and have a good day, everybody!

Sample of Socratic Method of Instruction Infused with a Rogerian Student-centered Approach

The following illustrates the Socratic dialogue with a Rogerian student-centered approach used in a seventh grade language arts class:

Teacher: The name of this course is language arts. Why do you think it is given this name?

Gary: It's the art of language.

Teacher: Good job, Gary. I like the way you used the reciprocal of the name, which means you reversed the name to make the definition come to life for you. Now, what is language?

Gary: Language is a way that people talk and communicate with each other.
Teacher: Good, now what is communication?

Angelica: Communication is when two people talk to each other.

Teacher: Okay, good Angelica, thanks for the definition. Now let's build on that. Does communication occur when only “two” people talk to each other?

Angelica: No, I guess it happens when two or more people talk to each other.

Teacher: That's the way to think things through. Now do people have to talk to communicate?

Carlos: No, I think people can send signals to each other, like the Indians, I mean, Native Americans do sometimes.

Teacher: Super Carlos! I like the way you are bringing information from your Texas History class into our language arts class. I also like the way you corrected yourself to make sure you were politically correct when you made reference to Native Americans. Now, what are some other forms of communication?

Deven: You can communicate with your eyes, too. Like when my little brother talks in church, my mom just has to look at him, and he stops talking and starts listening to the preacher, again.

Teacher: Wonderful example, Deven. My mom would use that same look when my brothers and I were younger, so I know exactly what you're talking about. Are there any other ways to communicate?

Deven: A person can communicate by making faces. Like sometimes my dad is mad because his football team lost the game, so he will frown all day. Or if he sees me behaving in church, he will smile and wink at me.

Teacher: Good, Deven, so you know that communication can be expressed in many ways.
How important is communication in our lives?

Jamie: Communication is like super important in our lives.

Teacher: Okay, thanks for your opinion, Jamie. Now, why is communication important in our lives?

Jamie: Well, I know that if adults don’t communicate, they end-up getting a divorce, which is what happened with my parents.

Teacher: Mmhm, I understand. So you view communication as being important in a marriage?

Jamie: Oh, yes, definitely! If you can’t talk to each other about your problems or your dreams, then you have no business getting married.

Teacher: That’s an excellent observation, Jamie! Thank you for sharing. I know it took a great deal of courage for you to discuss your personal life with the class. Does anyone have any other thoughts?

Beverly: I just want to say that agree with Jamie, and I know exactly how she feels. My parents are not living together right now, and my mom says it’s because she can’t seem to talk things over with my dad anymore. She says he just don’t listen no more (sic).

Teacher: Thank you for sharing, Beverly. I know it’s difficult to share personal concerns with us.

Beverly: You’re welcome, Miss D. By the way, I like this class, because I can say what I’m feeling without everybody laughing at me or looking at me like I’m some weirdo.

Teacher: You are all so intelligent in this class, and I truly appreciate you sharing your
responses with us. Today we are going to begin to study the five parts, or objectives, that provide the framework for this language arts class. You have already discovered the first part yourselves, and that is communication.

Tomorrow we'll continue discussing the other objectives. Your assignment for tonight is to brainstorm and come up with a list what you think the remaining objectives are for this language arts class. Good luck and have a good day, everybody!

Qualitative

Research Question—Qualitative

How would students receiving a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom describe their experience and their perceptions of education?

Participants—Qualitative

With regards to the qualitative component of this study, eight participants were purposely selected (Patton, 2002) by the researcher from the middle school students who had received the Socratic method of instruction infused with a Rogerian student-centered approach in their language arts class, based upon the students’ abilities to articulate thoughts, feelings, and perceptions. In order to be in alignment with the gender and ethnic ratio of the sample, the participants included: two Hispanic females and two Hispanic males; one Black female and one Black male; and one Anglo female and one Anglo male. The academic abilities of the students varied and were reflected by grades in the four core academic areas. The participants’ respective grade point average in the four content areas
was 81. The data acquired and assessed was used anonymously to protect the confidentiality of the students.

Instrumentation—Qualitative

Journaling Questions for Focus Group Regarding a Middle School Students’ Perceptions of Education and Experience of the Socratic Method Instruction Infused with a Rogerian Student-centered Approach to Learning in Middle Schools on Student Academic Performance, Motivation, and Student-efficacy

1. Define education.
2. What does “a good education” mean to you?
3. How important is a good education to you?
4. Explain the one lesson that has made a lasting impression in your mind.
5. How important is the teacher to your education?
6. What makes a good teacher?
7. How can teachers help students learn better?
8. Describe the Socratic Method of Instruction.
9. What is your opinion of the Socratic Seminars held in your language arts class?
10. How do you feel during the Socratic Seminars in your language arts class?
11. How has questioning helped or not helped in your learning and understanding of various topics in other classes, besides language arts?
12. How have the Socratic Seminars had an effect on you in any other way, other than learning that takes place here at school?

(Diaz, 2004)

Researcher as Instrument

As noted by numerous experts regarding qualitative inquiry research, the researcher is the instrument by which an investigation is conducted (Patton, 2002); therefore, it remained imperative to be an “empathic observer” of the data throughout the research process (Heppner, 1999). This objective provides the researcher with a more
authentic or "real world" perspectives of the participants, rather than one dictated solely by the researcher.

The primary researcher, who implemented the treatment being examined in this research, is a Texas certified English language arts teacher with seven years teaching experience who holds a master's degree in counseling from a CACREP accredited institution located in the Gulf Coast region of South Texas. The primary researcher also holds a certified school counselor (CSC) certificate from the state of Texas.

The primary researcher attended three different one-hour training sessions on implementing the Socratic method of instruction. While engaging in lesson designing prior to implementing the Socratic seminars, the primary researcher also read extensive literature on the procedures and techniques used in Socratic literature circles to ensure accuracy and precision. Additionally, phone and email contacts were conducted throughout this research process with Oscar Graybill, M.Ed., director of the Socratic Seminars International, formerly the Socratic Seminars Northwest. This organization was founded in 1995 by Graybill with the intent of providing professional development opportunities for educators in the form of Socratic Seminar Leadership Training Workshops. While in the classroom, Graybill used Cooperative Learning and Socratic Seminar for thirty years as primary tools in his student-centered instruction. Graybill also provides numerous training sessions. Additional information can be found at the Socratic Seminars International website:http://www.socraticseminars.com/education/socratic.html.

The primary researcher also visited the Socratic Institute at Riverside High School in El Paso, Texas. While visiting the campus, the researcher conducted informal interviews with personnel and students involved in the future educators program, namely
the director of the program, three teachers who teach in the program, the three senior
level students and four junior level students who are part of the program. The total time
of the interviews equated approximately six hours. Part of the interviews were structured
to develop an understanding of the students’ perceptions of the educational process,
namely their own experiences as students and as educators. The other part of the
interviews assisted in the development and precision of lessons constructed to implement
the Socratic seminars in the classroom.

Data Collection—Qualitative

The qualitative research was conducted through a Naturalistic Inquiry Design
(Guba & Lincoln, 1985), examining the students’ perceptions of education and their
experience being taught using the Socratic method of instruction infused with a Rogerian
student-centered approach. With parental permission, data was gathered through journal
responses and a semi-structured interviewing process of approximately eight volunteer
students. The students were interviewed once a week for approximately two hours,
totaling approximately twelve hours. The taped focus groups primarily encouraged
students to further discuss, clarify, share, and expand on their journal responses to
assigned questions. Patton (2002) provided the conceptualization for the organization and
use of the focus groups. The researcher transcribed the audiotapes of the focus groups
and the journal responses to prepare for data analysis.

Data Analysis—Qualitative

The evaluation of the data was obtained through a thematic content analysis
(Patton, 2002). The constant comparison method as described by Strauss and Corbin
(1990) provided guidance for the data analysis. The researcher read and reread the journal
and group transcripts, highlighting meaningful passages and making notations in the margins before beginning to note themes. Identified themes were grouped and regrouped until the researcher finalized a meaningful portrayal of the data. For additional analysis, the researcher used a computer editing tool to find terms that were repeatedly used in focus groups and in journals. The interpretation of the data revealed commonalities found throughout the research process.

**Trustworthiness**

According to Johnson (1997), three types of validity are found in qualitative research: descriptive, interpretive, and theoretical. *Descriptive validity* refers to the accuracy of the description as reported by the qualitative researcher. *Interpretive validity* is the degree to which the participants' viewpoints, thoughts, intentions, and experiences are accurately understood and reported by the qualitative researcher. *Theoretical validity* is obtained via a theory or theoretical explanation developed from a research study which fits the data; hence, provides credibility and is defensible. These basic concepts guided the researcher in establishing credibility.
CHAPTER 4
Data Analyses and Findings

This mixed methods experimental study examined the efficacy of using a Socratic method of instruction infused with a Rogerian student-centered approach to promote academic achievement and student motivation. Additionally, it explored the perceptions regarding education and Socratic student-centered experiences of eight students from the treatment group, through a journaling experience and a focus group.

This chapter begins by delineating the process of data collection and the procedure of the data analysis. The data process collection will include information regarding the instrumentation utilized in the quantitative portion of this research. The procedure of the data analysis will explain the results regarding the efficacy of using a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom to promote higher achievement scores on standardized tests and to foster a positive effect on overall motivation, talent, and context. Additionally, this chapter reports the thematic findings revealed in the qualitative portion of this research.

The following research questions were addressed in this research through data analyses:

Research Questions

1. What are the primary effects of implementing the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom on standardized tests scores?
2. How does using the Socratic method of instruction infused with a Rogerian student-centered approach affect students' grades in the four major content areas of English language arts, math, science, and social studies?

3. How is overall student motivation affected by using the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom?

4. To what extent does using the Socratic method of instruction infused with a Rogerian student-centered approach influence students' talents in school?

5. How does using the Socratic method of instruction infused with a Rogerian student-centered approach relate to the students' perception of context?

6. What are the effects on the students' efforts on tests while using the Socratic method of instruction infused with a Rogerian student-centered approach?

Quantitative

Response Rate

In this study, two questionnaires were used to collect data reflecting self-perceived beliefs about school performance. The Morgan Jinks Student Efficacy Scale and the Student Opinion Scale were given to 82 students of the treatment and control groups and who participated in the study. The scales were given in August, and then again in February, to measure any differences found. The overall rate of response was one-hundred percent.

Demographic Data

There were a total of 82 participants who took part in the quantitative portion of this research, with 46 participants in the treatment group and 36 in the control group.
These participants completed three reading assessments and two questionnaires. The reading assessments were designed to measure reading comprehension and vocabulary levels. The scores on these assessments were combined to create an overall achievement score. The two questionnaires addressed several aspects of the students’ beliefs and perceptions about their school performance with regard to grades, motivation, talent, context, and effort.

**Data Collection Procedures**

*Questionnaires.* Participants were asked to complete a series of questionnaires focusing on several aspects of their respective beliefs and perceptions about their school performance. Participants reported their beliefs on the following instruments:

- **Instrument 1: Morgan Jinks Self Efficacy Scale**
  The Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) measured student efficacy via the self-perceived importance and effort of the student with regards to his or her education using a four-point Likert Scale. Letter grades were also self-reported and measured by this instrument.

- **Instrument 2: Student Opinion Scale**
  The Student Opinion Scale (SOS) (Sundre, 1999) measured the students’ overall level of motivation. This instrument is comprised of 10 items using a five-point Likert Scale. Responses to items are summed to form three scores: Total Motivation; Importance, and Effort. The Total Motivation score is determined by summing responses to all ten items. Since the Morgan Jinks Student Efficacy Scale measured effort in one of its subscales, this instrument was used to measure total motivation, which was calculated by the sum of the three scores, namely, Total Motivation, Importance, and Effort.
Data Analysis Procedures

Reading Assessment Instruments. Student achievement scores from three standardized achievement tests were collected from school records. A preliminary principal components factor analysis (PCS) was conducted to create composite achievement scores (Gates, S.T.A.R., TAKS). According to this analysis, multiple individual achievement tests were combined into a single indicator of student achievement. All subsequent analyses would use this composite variable ACHIEVEMENT.

Instrument 1: Texas Assessment of Knowledge and Skills (TAKS) Reading Test, a criterion-referenced test, was developed to measure a student’s minimal reading proficiency.

Instrument 2: The Gates-MacGinitie Reading Test (GMRT), a norm-referenced standardized test, was developed to measure a student’s reading proficiency.

Instrument 3: Standardized Testing Assessment in Reading (S.T.A.R.) was designed to determine the instructional reading levels of students from grades one through twelve, compare students’ performances to national norms, and to track an individual’s growth in reading across grade levels.

A second composite variable of student grades were computed by combining via PCS on student grades in language arts, math, and science and social studies. Subsequent analysis would employ the composite variable GRADES, which were measured by the students’ self-reported letter grades in the four major content areas of English language arts, mathematics, science, and social studies and reported on the MJSES (1999). For the purpose of data analysis, the researcher in this mixed methods study gave numeric values
to the letter grades used in this instrument. Table 2.4 shows how the self-reported grades were converted to numeric values:

Table 2.4

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numeric Conversion</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>student’s average ranging between 100-90</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>student’s average ranging between 89-80</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>student’s average ranging between 79-70</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>student’s average ranging between 69-60</td>
</tr>
<tr>
<td>F</td>
<td>5</td>
<td>student’s average ranging between 59-0</td>
</tr>
</tbody>
</table>

Raw scores on all self reported attitude data, as well as the two composite achievement and grade scores were analyzed using a 2 (Group: Treatment vs. Control) X 2 (Pre-Post Treatment) mixed factor Multiple Analysis of Variance (MANOVA) with a pretest-posttest repeated measures factor. Accordingly, participant scores on several variables were compared across two treatment phases.

Results

A preliminary test of the assumption of equal covariance matrix necessary for the appropriate conduct of MANOVA was conducted using Box’s M. The result was significant $F(78, 17893.8) = 1.5, p<.004$. suggesting that there was a violation of the assumption; thus according to (Mertler & Vannatta., 2005) the significance of multivariate effects would then be most appropriately interpreted with Pillai’s trace.
The results showed a significant effect of treatment on the combination of all dependent measures (achievement, grades, motivation, talent, context, and effort) Pillai's trace .408 $F(6, 75) = 8.6, p<.001; \eta^2 = .408$ (moderate effect size). To further explore the locus of specific impact of treatment effects, univariate focused comparisons of each individual factors on student achievement motivation beliefs are presented in Table 3.4.

Table 3.4 shows the univariate comparisons and descriptive statistics (means and sd) of student attitude, achievement and grade scores at two different testing phases (pre-post). Significance level of scores between pre-post testing phases are presented along with the effect size estimates.
### Table 3.4

**Univariate Comparisons and Descriptive Statistics**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pretest M, (SD)</th>
<th>Posttest M, (SD)</th>
<th>F</th>
<th>P*</th>
<th>(\eta^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effort</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>8.1, (1.6)</td>
<td>7.8, (1.8)</td>
<td>2.5</td>
<td>.12</td>
<td>.03</td>
</tr>
<tr>
<td>Control</td>
<td>8.3, (1.6)</td>
<td>8.7, (1.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Talent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>28.0, (5.8)</td>
<td>25.6, (6.8)</td>
<td>4.4</td>
<td>.04</td>
<td>.052</td>
</tr>
<tr>
<td>Control</td>
<td>30.3, (7.0)</td>
<td>31.3, (8.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>20.7, (6.3)</td>
<td>20.3, (4.4)</td>
<td>4.2</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>Control</td>
<td>21.5, (5.4)</td>
<td>24.0, (6.6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>34.0, (6.1)</td>
<td>39.4, (5.2)</td>
<td>9.3</td>
<td>.003</td>
<td>.104</td>
</tr>
<tr>
<td>Control</td>
<td>31.9, (6.5)</td>
<td>36.2, (6.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>-.1219348, (1.1)</td>
<td>-.2589456, (.99)</td>
<td>2.8</td>
<td>.097</td>
<td>.034</td>
</tr>
<tr>
<td>Control</td>
<td>.1558055, (.91)</td>
<td>.3308749, (.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>.1169423, (.98)</td>
<td>.5332594, (.68)</td>
<td>42.6</td>
<td>.001</td>
<td>.347</td>
</tr>
<tr>
<td>Control</td>
<td>-.1494263, (1.0)</td>
<td>-.6813870, (.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Reflects composite (PCS) variable named ACHIEVEMENT comprised of the combined scores of the Gates-MacGinitie, the TAKS Reading, and the S.T.A.R. tests. Negative mean scores in Grades and Achievement reflect factor scores, lower scores reflect higher grades. Also, treatment means for achievement and control.*
Test of Specific Null Hypothesis

The results in Table 3.4 were used to evaluate a series of specific null hypotheses.

Null Hypothesis 1: Achievement

Null Hypothesis 1 states there would be no differences in achievement between treatment and control. It was expected that if the treatment was effective, students in the treatment group would show gains relative to control group participants. As shown in the table, students in the treatment group realized significant gains in their achievement compared to the control group (F, 1, 80) = 42.6, $p< .001 \eta^2 = .347$; thus, Null Hypothesis 1 was rejected. These results indicate that implementing the Socratic method of instruction infused with a Rogerian student-centered approach resulted in a significantly positive impact on the overall achievement scores on the three standardized achievement tests.

Null Hypothesis 2: Grades

Null Hypothesis 2 states there would be no differences in grades between treatment and control. An effective treatment was expected to show gain in students in the treatment group relative to control group participants. Table 3.4 demonstrates students in the treatment group did not show significant gains in their grades compared as to the control group (F, 1, 80) = 2.2, $p< .097 \eta^2 = .034$; therefore, Null Hypothesis 2 was not rejected. Grades were measured by this MJSES (1999) on items 31-34 and included the students' self-reported letter grades in the four major content areas of language arts, mathematics, science, and social studies. The letter grade scale was as follows: A = student's average ranged between 100-90, B = student's average ranged between 89-80, C = student's average ranged between 79-70, D = student's average ranged between 69-60, and F = student's average ranged between 59-0. Since the grades were self-reported
by the individual students and were based on a letter grade scale, rather than an actual numeric score, the results do not accurately reflect a true representation of exact differences from August to February.

Null Hypothesis 3: Motivation

Null Hypothesis 3 states there would be no differences in motivation between treatment and control. It was expected that if the treatment was effective, students in the treatment group would show gains relative to control group participants. As shown in the table, students in the treatment group accomplished significant gains in their self-perceived level of motivation compared to the control group \((F, 1, 80) = 9.3, p < .003 \eta^2 = .104\); thus, the Null Hypothesis 3 was rejected. The results suggest that implementing the Socratic method of instruction infused with a Rogerian student-centered approach had a positive impact on motivation between the treatment and control group.

Null Hypothesis 4: Talent

Null Hypothesis 4 states there would be no differences in talent between treatment and control. It was expected that if the treatment was effective, students in the treatment group would show gains relative to control group participants. As shown in the table students in the treatment group realized significant gains in the level of perceived talent between the control group \((F, 1, 80) = 4.4, p < .040 \eta^2 = .052\); therefore, the Null Hypothesis 4 was rejected. These results conclude that implementing the Socratic method of instruction infused with a Rogerian student-centered approach indicated a significantly positive difference between the treatment and control group with regard to talent.
Null Hypothesis 5: Context

Null Hypothesis 5 states there would be no differences in context between treatment and control. It was expected that if the treatment was effective, students in the treatment group would show gains relative to control group participants. As shown in the table, students in the treatment group realized significant gains in their perception of context compared to the control group (F, 1, 80) = 4.2, p < .044 $\eta^2 = .050$; therefore, the Null Hypothesis 5 was rejected. These results reflect a significantly positive difference between the treatment and control groups.

Null Hypothesis 6: Effort

Null Hypothesis 6 states there would be no differences in effort between treatment and control. It was expected that if the treatment was effective, students in the treatment group would show gains relative to control group participants. As shown in the table, students in the treatment group failed to exhibit significant gains in their effort compared to the control group (F, 1, 80) = 2.5, p < .12 $\eta^2 = .030$; thus, Null Hypothesis 6 was not rejected. These results indicate that there exists no significant difference between the treatment and control group with regard to self-perceived efforts expended on taking standardized tests.

The six null hypotheses examined in this study resulted in four of the six demonstrating a significantly positive gain between the treatment and control group. The four null hypotheses indicating significant positive gains are found in achievement scores, level of motivation, talent, and context. The two null hypotheses failing to reflect a gain were in self-reported grades and perceptions of exerted effort on standardized tests.
Qualitative

Overview

The research questions involving the efficacy of using a Socratic method of instruction infused with a Rogerian student-centered approach to promote academic achievement and student motivation were addressed by gathering data via the collection of journal writings responding to twelve questions and eight focus group interviews. The use of thematic content analysis (Patton, 2002) was utilized to examine text data to identify core themes.

Participants

The qualitative component of this study included eight participants who were purposely selected by the researcher from the middle school students receiving the Socratic method of instruction infused with a Rogerian student-centered approach in their language arts class. Individual and parental consent had been granted in writing prior to the study. In order to be in alignment with the gender ratio of the sample, the participants included five females and three males. The data acquired and assessed was used anonymously to protect the confidentiality of the students. The participants were not subjected to any risks and confidentiality was maintained throughout the research process. The signed consent forms, both individual and parental, will be locked in the researcher's file cabinet for seven years after the youngest participant's eighteenth birthday.

Data Sources

The data collection of the qualitative component of this study included a journal writing experience prior to the focus group interviews. The journal writing experiences
and focus group interviews consisted of twelve questions regarding the students' perceptions of education, teachers, and the Socratic method of instruction infused with a Rogerian student-centered approach. In addition to the twelve questions, the participants were asked on the day of the last interview to voice any desired additional information to help teachers understand their deep feelings. Many of the emerging themes were based upon the responses from this last request. The format of the six focus group interviews included open-ended conversations lasting for duration of two-hours with all eight participants. The researcher/interviewer took care to establish rapport and understand the variety of beliefs held by the participants. The participants maintained journals throughout the entire time they were being taught using the Socratic method infused with a Rogerian approach. The six focus group interviews were placed on audiotape and transcriptions of these sessions were typed verbatim in written format.

Data Analysis

The research questions were explored in both a written journal response and six semi-structured, interactive focus group interviews lasting from one and a half to two hours. The semi-structured interactive focus group discussion included questions for clarification of responses; it also solicited further anecdotal replies not mentioned in the journal writings. The data collected was analyzed for themes and patterns in the perceptions that emerged from the journals and the focus groups.

Reporting the Results

The results of the qualitative research were established by analyzing the content via verbatim transcriptions of the sessions and color-coding similar patterns that emerged (Patton, 2002). The patterns revealed themes that were placed in categories based on the
questions proposed to the participants. The three main categories are education, Socratic method with Rogerian approach, and effective teachers. Figure 3.4 exemplifies the themes found in each of the three main categories.
Figure 4.4

Perceptions of the Socratic Method and Rogerian Approach

Socratic Method with Rogerian

Education

Freedom
Confident
Understood
Smart
Voice

Important
Key to Freedom
Opportunities
Success
Goals

Teachers

Fair
Caring
Understanding
Compassionate
Listen

(Diaz, 2006)

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Students’ Perceptions of Education

Five major themes surfaced regarding the importance of education from the journal writing experience and the six focus group interviews. The driving questions for the themes associated with this section include:

1. Define education.
2. What does “a good education” mean to you?
3. How important is a good education to you?

The surfacing themes included: importance, key to freedom, success, opportunities, and goals. The participants clearly expressed these themes in both the journal responses and the focus group interviews.

Importance. The students unanimously agreed that education is extremely important in their lives.

Jamie reported that education is crucial to the development of the individual:

Actually, it (education) is more important to me than most things. I can’t even begin to think of a world, where I cannot receive an education. It would be a very dull life for me. Also, I think that people would suffer from depression and feel like they don’t really matter in this world.

Carlos maintains that an education will help him attain his future career goals:

It (education) is very important to me. I want to be somebody when I grow-up, not just live for free. I want to leave my mark on this earth. I hope to be remembered as being a wise man.

Desiree concurs that an education will help with future career goals:

Getting a good education is super important to me, because without a good
education I wouldn’t be able to get as far in life. I would be limited in my choices when I get older.

Deven ascertains that an education helps one attain career goals:

A good education is extremely important to me, because I don’t want to be flipping burgers in a fast-food restaurant. I want to go to college someday and be somebody. I may even be able to help others who don’t have an education. I could show them how important it is to get a good education.

Cassie claims that education is not only important to her, but to her family, as well:

Education is important not just to me, but it’s important to my whole family. My parents do not speak English, so they are always telling me to learn everything I can in school. Even my grandmother in Mexico tells me to study hard in school, so that I don’t have to live a hard life like she has had to do.

Angelica sees education as a crucial component in promoting self-esteem:

It’s important that I get a good education, so that I don’t look ignorant. I don’t want to be embarrassed all my life, not knowing what people are talking about. I want to be able to walk into any room and feel like I am a smart girl. Being able to do this will make me feel good inside.

Beverly views education as an important means to lift her from the oppression felt by her family:

To me it’s (education) everything. Not like some people who just blow-off their homework. I always make sure I do my homework and check it to make sure everything is correct. Being black is hard enough, but if I’m black and not educated it will make life even harder for me. My grandma tells me that since she
did not get educated, she has really struggled in life. She says she can’t get a good job or even buy little things that she needs to live.

Juan believes education is the cornerstone for all endeavors:

Education is the ultimate. You need it for everything you ever try to do! It’s like the foundation of a house. When I help my dad build houses in the summer, I get to see how they start with the concrete on the ground first. My dad says this is what holds the whole house together. Education is like the concrete under the houses. You need it to hold yourself together and stand upright in life.

Key to Freedom. The participants perceive education as being the key to freedom and choice in life.

Jamie claims that education grants a person the freedom needed to make wise choices in life:

Education releases the beasts, or bad judgments in your mind. Some kids can be persuaded to do really “stupid” stuff in life, but if you have a good education, then you’re free to make your own choices. The more education you have, the more freedom you have in your head to make good choices, not dumb ones.

Carlos equates education to the freedoms found in the United States:

Education helps us to be anything we want to be in life. I guess it’s true what they say about the United States as being the “land of the free”, because they give us a free education and we are free to work anywhere we want. Last year we learned that some countries like China and Japan don’t give their people the freedom to be whatever they want to be. The people are guided by a test that they have to pass in
the eighth grade. In the U.S., we have the freedom to learn, and this free learning provides us the freedom to choose what we want to be in life.

Desiree ascertains that education helps a person feel free to be whomever they choose:

> Education can release us to be whatever we want to be, not just when we grow up, but even now. I feel free to be who I am, because I am educated. I don’t have to hide behind my ignorance.

Deven believes that education is equivalent to freedom:

> Education is freedom, when you really think about it. In social studies last year, we learned about how some countries don’t have the same rights that we do. Some countries don’t let their people choose their own careers. But when you think about it, we can’t really choose our own careers either, if we don’t have a good education. So like I said earlier, education is freedom.

Cassie considers education to be the key to freedom:

> Education will help me be a free person. In Mexico, girls can’t just be whatever they want to be. Most of the time, the parents will only pay for the boys to go to university. My parents are starting to see that saving money for me to go to university will help me find my true freedom in this country.

Danielle maintains that education helps in the process of making choices:

> Education can help you make good choices in your life. It helps everything. Like right now, I know this is just kind of a small thing, but right now my mom is trying to decide what kind of car insurance to buy. If she didn’t have a high school diploma, she could not be free to choose the one she wants. She would probably just believe whatever the people tell her.
Beverly asserts that education is the key to freedom:

Education holds the key to a person's success in life. Without an education you are not free to do or choose your own destiny. You are limited to the choices made by others who may not even know you inside.

Juan believes that an education provides freedom of choice:

I think education helps us to have many choices in our lives. We can make "educated choices", not just flip a coin to see where it lands.

*Opportunities, Success, and Goals.* Many of the participants perceive education as the key to success and opportunity in life. In addition, it will help them obtain their life's goals. The responses were heartfelt and in some instances brought tears to their eyes, as they revealed some hardships faced by family members.

Jamie claims that education grants a person the freedom needed to make wise choices in life:

Education will help me be successful in life, and with it I will be able to fulfill my dreams of being a veterinarian or something in the medical field.

Carlos ascertains that all goals can be accomplished through education:

Like that Army commercial, education will help me be all that I can be in life. I will be able to be an engineer at a big chemical plant and make lots of money. With lots of money I will not have to worry about how I will pay the bills for me and my wife and kids.

Desiree maintains that an education holds the key to her dreams:

Like a key is about the only thing that unlocks a door, well, education is the key to unlocking the door to getting a good job. My family says that with a good
education I won’t have to worry about how I am going to pay for the light bill, the water bill, the payment for the bus, and everything like that. Education will unlock the door to my hopes and dreams of becoming a surgeon.

Deven believes that education will allow him to help his loved ones:

A good education will help me get the job of my dreams. I’ve always wanted to be an inventor or to find a cure for cancer or AIDS (sic). If I don’t get an education, how will I know what chemicals to mix to find the perfect cure (sic). I want to find a cure for cancer, because my grandma has cancer and we don’t know how long she has to live. If I can hurry up and find a cure, then we won’t lose her.

Cassie considers education to be the determining factor in her future success:

It’s like, education will decide whether I make a good life for myself or not. With education I can get a good job and not have to worry about bills, like Desiree said earlier. I know how she feels. Sometimes we don’t have enough money for all of us to ride the bus, so my dad will put us on the bus, and he and my brother will walk and meet us wherever we are going. Education will help me not have to worry about money problems.

Danielle claims that education will help her to attain her future dreams:

Education will help me become a lawyer or a doctor, or even a teacher, so I can help others. All I know is that if I don’t get a good education I won’t even begin to be able to follow any of my dreams.

Beverly asserts that a good education will help her achieve her goals in life:
I have goals in life, and I know for a fact that a good education will help me reach my goals. Without a good education I may just become another statistic in this country. A statistic of people who don’t reach their goals.

Juan believes that an education is the determining factor in the accomplishments of his life’s goals:

With an education I can be anything I want to be. I can get whatever job I want and be as successful as I want to be. Education is like a newly paved road on my path to my goals. Without it (education) I would go down a very bumpy road.

*Students' Perceptions of Effective Teachers*

When asked various questions about the qualities of an effective teacher, five major themes emerged approach from the journal writings and the six focus group interviews. The questions prompting these responses for this section include:

1. How important is the teacher to your education?
2. What makes a good teacher?
3. How can teachers help students learn better?

The five themes that emerged from this series of questions regarding the qualities of an effective teacher include: fair, caring, understanding, compassionate, and listen.

*Fair and Empathetic.* With regard to the characteristics of an effective teacher, the words fair and understanding (empathetic) continued to surface in the written journal replies and the verbal responses at the focus group interviews.

Jamie reported that an effective teacher should be fair and understanding:

A teacher that makes a difference is one who understands that we are just kids, and we have problems, too. She or he should always try their best to understand
how we are feeling in the classroom. Sometimes we’re scared or sad or confused, so they should understand all of these feelings in us.

Carlos maintains that an effective teacher is understanding and treats her students equally:

A really good teacher is one who sees the world through our eyes. She or he is one who always takes our feelings into consideration and doesn’t just get mad at us without finding out why we are acting bad in class. Lots of times the teacher might think that we’re bad kids, but that’s not fair. She doesn’t even know us, so how does she know this?

Desiree concurs that a good teacher is one who is just and thoughtful:

A really great teacher is the teacher who treats all the kids equal. Kind of like a mom that loves all her kids the same. Once a teacher starts playing favorites, the other kids start to get mad. The teacher needs to love everyone equal (sic) and understand all of our feelings are different. She has to understand that we all have feelings, too.

Deven ascertains that equality and consideration are qualities of an effective teacher:

The excellent teacher is the one that is fair and considerate. There are some teachers out there that don’t like me, because I am pretty smart. I guess they feel uncomfortable around me, but they don’t stop to think that I have feelings, too. I’m not a robot. I’m a person, who wants to be treated like everyone else.

Cassie claims that the empathetic teacher is the one who is the most successful:

A good teacher is the one who understands the feelings inside her students. She is the one who says, “Hello Cassie, how are you today?” and really means it. There
are some teachers that I can tell my problems to when they ask me this question. But then there are some teachers that I would be afraid to tell them anything. It’s funny, but I think I learn more from the teachers that I can tell my problems to. I do better in those classes.

Angelica views the effective teacher as one who understands the students:

I think a good teacher, like Carlos said, “...sees the world through our eyes.” A good teacher has to know how we are feelings inside. If she doesn’t then she can’t teach us math or language arts, because she doesn’t know what we’re thinking or feeling. We have to feel understood to do good in our classes.

Beverly believes that a good teacher understands her student’s deepest feelings:

A good teacher is one that acts like Jesus did. A good teacher will always understand, or try to understand, our feelings. He’s one that is fair to everyone, not just a few.

Juan sees a good teacher as being just and understanding:

The good teacher always has to be understanding with the kids. She has to be fair and not just listen to one side of the story, if some kids are fighting.

*Caring and Compassionate.* The students individually and as a group agreed that a teacher must be caring and compassionate in order to reach the students and help them with their dreams.

Jamie reported that a caring teacher can provide opportunities for students who may not otherwise have been given the chance to succeed:
I think that when a teacher really cares about her students she can really open
doors for them to accomplish their goals. It’s like she holds the key to their future.
If she is mean and doesn’t care, it really shows up in the futures of her students.

Carlos asserts that teachers expressing compassion are helpful not just to a student’s
academic success, but to the student’s entire existence as well:

When a teacher shows love for her students, she helps them understand their
purpose in life, as well. There is a song that is called, “The Reason” by a group
called Hoobastank, and in this song they start by singing, ‘I’m not a perfect
person. There’s many things I wish I didn’t do. But I continue to learn . . . I’ve
found a reason for me to change who I used to be. A reason to start over new and
the reason is you.’ Man, if teachers could only think this way and really care
about us, life would be good.

Desiree believes that compassion is a necessary component to the teaching profession:

I think that sometimes school, like colleges and stuff, need to teach people not just
how to teach math, science, language arts, and history, but they need to teach
them how to treat kids. Teachers should treat us kind of like our parents do, with
love and respect. They need to get mad sometimes, but not get mad for every little
mistake we make. We’re just kids. We’re still learning. We’re going to make
mistakes.

Deven claims that a caring heart makes all the difference:

I think, well actually I know that I do better in classes when the teacher shows us
that she is interested in our lives and really cares about us. With a teacher’s caring
heart, all students can go far in life. I just know it!
Cassie asserts that compassion should be a given:

Teachers shouldn’t have to learn to be loving people. It should just be part of them before they even start teaching. How can you teach, if you don’t already love children?

Angelica views caring for students as a crucial component of teaching:

I think that the most important part of teaching is caring for your students. If you are not a caring teacher, how can you even begin to teach? The kids aren’t going to listen to you if you don’t show them you care first. Kids need to know they are loved before they can move forward with their education.

Beverly claims that a caring, compassionate teacher is the most successful type:

Teachers who care about their students are usually the ones whose kids make the best grades in the class and on TAKS. You can ask kid, and they will tell you that if the teacher cares about them, they try hard on tests and class work.

Juan asserts that compassion is the essence of teaching:

Showing love for students is what teaching is all about. If you don’t have love for your students then you shouldn’t even think about becoming a teacher.

*Listens.* The participants believe that when a teacher really listens to them, they can be much more successful in school and in life.

Jamie ascertains that a teacher who listens has a higher success rate:

It’s like, when a teacher listens to her students, I mean really listens to her students, these students will do much better in school. A teacher should remember to always listen to her students, and not just about school issues, but life issues, too.
Carlos maintains that a teacher who listens is able to connect with her students on a higher level:

I like it when teachers listen to me and find out who I am. I feel like these are the teachers that we have a bond that no other teachers have with me.

Desiree views listening as a key component to the teaching profession:

A teacher should always take the time to listen to her students. If she doesn’t, how is she going to know how to help them with their school work or life’s problems.

Deven ascertains that good listening skills can truly enhance the educational process:

Teachers probably should realize that if they would just listen to their students, school would be a lot easier. If they don’t listen to us, then school is much more difficult, because they (the teachers) will never understand our point of view. A kid’s point of view is very different from an adult’s point of view.

Cassie claims that a good listener is always good in teaching and in life:

Being a good listener is good for teachers to be, but it is also important for all of us to be good listeners, not just teachers. Listening to people helps them make good decisions in life, and it makes you a better person.

Angelica believes that listening is at the cornerstone of all teaching:

When a teacher listens to her students, she can teach them in ways that they will understand. When you teach, you have to get to know the child first. You get to know the child by listening with your ears and your heart.

Beverly views listening skills as being ultimately crucial to teaching and living:

Listening is so important in school and in life. And it’s not just the students who need to listen, but the teacher also needs to listen to the children, too. My mom
says that if God had intended us to speak as much as we listen, He would have
given us two mouths and only one ear.

Juan believes that a teacher who listens is always successful:

I like it when teachers listen to what I have to say. I am usually a very shy person,
but there are some teachers who can make me talk and laugh in their classes.

These are usually the classes where I make A's on my report card.

*Students’ Perceptions of the Socratic Method with a Rogerian Approach*

There were five major themes which materialized regarding the students’
perceptions of the Socratic method of instruction infused with a Rogerian approach from
the journal writing experiences and the six focus group interviews. The guiding questions
for this section include:

8. Describe the Socratic Method of Instruction.
9. What is your opinion of the Socratic Seminars held in your language arts class?
10. How do you feel during the Socratic Seminars in your language arts class?
11. How has questioning helped or not helped in your learning and understanding of
    various topics in other classes, besides language arts?
12. How have the Socratic Seminars had an effect on you in any other way, other than
    learning that takes place here at school?

The surfacing themes included: freedom, confidence, smart, understood, and voice. The
participants clearly expressed these themes in both the journal responses and the focus
group interviews.

*Freedom, Confidence, and Smart.* With regard to the procedure used to implement
the Socratic method infused with a Rogerian approach in the classroom, the students
concluded that the process made them feel free to express their thoughts and feelings,
confident in their responses, and it made them feel smart.
Jamie claims that the Socratic process helped her feel free to express her feelings and it gave her the confidence she needed to make her feel good about herself:

> When you let ask us questions about what we’re reading, it makes me feel so smart, like I can do anything. I feel safe answering questions in this class. I feel like I can say what I’m thinking or feeling without being scared that you are going to get mad at me or think I’m totally stupid. That’s a great feeling!

Carlos believes that the Socratic method with a Rogerian approach helps him concentrate better and write better papers:

> Answering these questions helps me feel smart, and when I feel smart like this, I can write my papers a lot easier. The ideas come easier when I feel smart about answering questions.

Desiree ascertains that the process makes her feel like she is as intelligent as any college student:

> When we talk about the stories and poems we read in class, I feel like I’m as smart as most of the college students. I like that feeling. It makes me think that I am smart enough to go to college.

Deven asserts that:

> My sister says that the professors in college ask for the students’ opinions all the time. I think it's a great thing to do, because even though we’re just kids we have some good ideas, too.

Cassie maintains that the Socratic process helps her feel confident and intelligent:

> When you ask us those questions about the stories and stuff, I feel like I can answer things, not just from my head, but from my heart, too. Also, I don’t feel
afraid to answer the questions, because you make me feel smart. You always say, ‘That’s a great answer, Cassie.’ Then you ask me to elaborate on it. None of my other teachers do this. Maybe that’s why I do better in this class than any of my others.

Angelica thinks that this process makes her a stronger student:

I like it when we go around the room and answer questions about the stories and stuff that we read. I think it makes me a better student, not just in language arts, but in all of my classes. I feel smarter this year for some reason. I think it’s because you make me feel that way, by letting me answer questions about what I read.

Beverly sees the process as allowing her to freely express her opinions without any threat of being judged:

I love it that I can say what I’m thinking and feeling in this class without someone, like the students or the teacher telling me how dumb I am. I feel very comfortable and safe in here. I only wish that my other classes were the same.

Juan claims that this process helps him to dig deeper in his thoughts to find greater insight:

When you give me time and the right to answer the questions about the stories and poetry in our class, I feel kind of like I say things like my grandfather. My grandpa is a very wise old man, who says really important things. Well, I feel like him in this class. I’m not trying to sound conceited, but I think I sound like him in this class. I think I sound smart in here.
Understood and Voice. The literature circles using the Socratic method infused with a Rogerian approach in the classroom, provided the students with a feeling of being understood by allowing them to have a voice in the classroom.

Jamie ascertains that the Socratic method makes her feel like she is truly understood and has a power of speech in the class:

When we talk in this class about what we read, I feel like everyone understands me. I feel like I can say anything that’s on my mind, within reason. As long as I don’t insult or hurt anyone. That’s a good rule to have by the way. It makes us feel heard and not scared.

Carlos views the Socratic method as a way to develop his opinions and express them in a safe environment:

I like answering questions during the literature circles, because I feel like I’m able to start getting my thoughts together so that I can be a famous speaker one day. The way we answer the questions helps me to really think about what I say, and say the right thing. Everyone usually likes what I have to say.

Desiree claims that the Socratic method makes her feel like she is understood by all. She further adds that it has even helped her at home:

Answering the questions makes me feel like people really understand me. When I’m at home, I am able to use the same way of thinking when I talk to my parents about things. My parents say that they are very proud of me, because they think I’m growing up.
Deven maintains that the Socratic circles have helped him further the development of his ideas, as well as provided a safe place for which to express these views. He also claims that he feels that everyone understands him better:

There are many times in other classes when I think of so many things to say to add on to the teacher’s lessons, but because I am shy, I usually don’t say anything. In this class though, I can pretty much say what I’m thinking and feeling, without feeling scared that people will laugh at me. It really is a good feeling! I wish it was this way in all of my other classes.

Cassie views the Socratic method as a way to help her gain confidence in her innermost thoughts:

When we talk in the class about the stories, I feel like I can accomplish many things, not just the talks in the class. It feels like I can soar like a bird in the sky.

Angelica believes that this process helps her in and out of school:

The questions and answers in this class have really helped me organize my thoughts so that they make sense. I can actually use this in my other classes, because it makes it easier for me to ask for help. I have been able to really answer questions in Bible study class, too. My parents are very proud of the way I talk like an adult at church now.

Beverly asserts that the Socratic method allows her to have a voice in the class without being judged:

When I get to answer questions in class about my thoughts on the stories, poems, or current events, I feel like I count in the class, like I make a difference. In my
other classes, I feel like just a student, but in this class I feel like I belong and that I have a voice.

Juan claims that the Socratic method has helped him feel confident to speak what’s on his mind. In addition, he feels understood by those around him:

I like answering questions out loud for this class. I usually don’t say much in my other classes, but I feel confident in here to speak my mind. I know that no one will make fun of me or think I’m weird. Also, I think that people are starting to notice me more. I think they really understand what I’m trying to say most of the time.

Summary

The purpose of this study was to determine the efficacy of implementing the Socratic method of instruction infused with a Rogerian student-centered approach to promote academic achievement and student motivation. The chapter opened with an overview of the mixed paradigm and proceeded with the analysis of the quantitative data. The results for the quantitative portion were reported. The chapter concluded with a description of the findings revealed in the qualitative section of the study. Themes were discussed using anecdotal information and quotes supplied by the participants.

Chapter Five will summarize the results and findings and discuss the relation between these results and findings and the theoretical perspectives addressed in the literature review. Conclusions about the efficacy of the Socratic method infused with a Rogerian approach will be revealed and recommendations for further study will be provided.
CHAPTER 5
Discussion and Recommendations

Summary

This chapter establishes the connection between the foundation established by the theoretical perspectives and the concepts examined in this study regarding the efficacy and students’ perceptions of education and the implementation of a Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts class. A summary of the findings will be presented, and the strengths and limitations of the study will be defined. In addition, recommendations for further research will be delineated.

Statement of the Problem

The recent rise in math and reading testing requirements enforced and monitored by the No Child Left Behind Act (2001) (Clark & Amatea, 2002) have increased dropout rates throughout the nation (Balfanz & Legters, 2001). Stringent academic requirements necessitate research to find ways in which to reduce dropout rates throughout the United States (Lewis, 2003). By examining the standards, models, and clarifications regarding the role and accountability standards of the school counselor, the ASCA National Model® for School Counseling Programs and the Education Trust Foundation (2003) have established a basis from which school counseling programs can perform at optimum levels by identifying school counseling interventions that impact student academic achievement (Poynton, et al., 2006). Working collaboratively with teachers and other educational colleagues, school counselors recently serve as advocates in the development, coordination, and implementation of support systems designed to improve the learning
process of students experiencing difficulty with rigorous academic programs (House and Hayes, 2002). As a component of this process, the support offered to classroom teachers, with regard to academic achievement, includes the improvements on educational practices and pedagogy (Dahir, 2004). Furthermore, a pedagogical intervention strategy to examine is the Socratic method of instruction (Loan, 2003) infused with a Rogerian student-centered approach to address the social and personal needs of the middle school adolescent (Rogers, 1969; Erikson, 1959, 1994).

Research Design

This mixed method study was designed to contribute to the literature through the examination of an effective pedagogy in which the school counselor could work collaboratively with colleagues and fellow educators to enhance academic achievement and student motivation. Secondly, the results of this research could add to the literature regarding pedagogical practices. Attempts were made to delineate the efficacy of implementing the Socratic method of instruction infused with a Rogerian student-centered approach versus a pure Socratic method or teacher-directed technique (Joyce, B., et al., 1992). Additionally, the benefits of this research project involved a sharing of knowledge regarding the perceptions of education and the experience of the Socratic method of instruction infused with a Rogerian student-centered approach in a middle school language arts classroom. The data collected was analyzed for themes and patterns in the perceptions that emerged from the journals and the focus groups (Patton, 2002).

The approach used in this study involved a mixed paradigm utilizing a treatment group of 46 and a control group of 36 for a total of 82 middle school students of varied levels of competence, ethnicity, and gender. The students' overall reading achievement
was measured by combining three commonly used reading assessments demonstrating significant validity and reliability: Released TAKS Reading Tests (Texas Education Agency, 2003), namely the 2003-pretest and 2004-posttest, the Gates-MacGinitie Reading Test (Forms S-pretest and T-posttest) (Gates & MacGinitie, 2000), and the Standardized Testing Assessment in Reading (S.T.A.R.) (Richards, 1998). Additionally, two questionnaires were used to collect data reflecting self-perceived beliefs about school performance, namely grades, talent, context, effort, and motivation. The Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) measured student efficacy, as defined by the talent, context, and effort of the student with regards to his or her education using a four-point Likert Scale. In addition to measuring talent, context, and effort, letter grades were also self-reported and measured by this instrument. The Student Opinion Scale (SOS) (Sundre, 1999) was used to measure the students’ overall level of motivation. This instrument is comprised of 10 items using a five-point Likert Scale.

The qualitative research was conducted through a Naturalistic Inquiry Design (Guba & Lincoln, 1985) examining the students’ perceptions of education and their experiences with the learning process, namely the Socratic method of instruction infused with a Rogerian student-centered approach. Eight participants were purposely selected (Patton, 2002) by the researcher from the middle school students who had received the Socratic method of instruction infused with a Rogerian student-centered approach in their language arts class, based upon the students’ abilities to articulate thoughts, feelings, and perceptions. In order to remain in alignment with the gender and ethnic ratio of the sample, the participants included: two Hispanic females and two Hispanic males; one Black female and one Black male; and one Anglo female and one Anglo male. The
academic abilities of the students varied and were reflected by grades in the four core academic areas. The evaluation of the data was obtained through a thematic content analysis resulting in the identification of 13 themes in three main categories.

**Research Questions and Discussion of Results**

The research questions provided an overall arch encompassing the structure of this mixed methods research design. The first six questions were addressed via quantitative research and measured achievement, talent, context, effort, grades and motivation. The first six questions in this study were addressed using a 2 X 2 mixed factor multiple analysis of variance (MANOVA) with a pretest-posttest repeated measures factor. The results were as follows:

1. **What are the primary effects of implementing the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom on standardized tests scores in reading?**

   With regards to overall reading achievement addressed in research question 1, students in the treatment group realized significant gains in their achievement compared to the control group ($F, 1, 80) = 42.6, p < .001 \eta^2 = .347$; thus, Null Hypothesis 1 was rejected. The Socratic method of instruction infused with a Rogerian student-centered approach appeared to have had a positive effect on the student's reading aptitude.

2. **How does using the Socratic method of instruction infused with a Rogerian student-centered approach affect students' grades in the four major content areas (language arts, math, science, and social studies)?**

   On the subject of grades found in research question 2, students in the treatment group did not show significant gains in their grades compared to the control group ($F, 1,$
80) = 2.2, \(p < .097\eta^2 = .034\); therefore, Null Hypothesis 2 was not rejected. However, since the grades were self-reported by the individual students and were based on letter grades representing intervals of ten, rather than actual numeric scores, the results do not accurately reflect a true representation of exact differences from August to February. The Socratic method of instruction infused with a Rogerian student-centered approach did not reflect a significant difference in grades. However, after further review of the instrument, the self-reported letter grades, namely A, B, C, D, and F, each had a 10-point range; therefore, it is difficult to ascertain any exact numeric changes in grades.

3. How is overall student motivation affected by using the Socratic method of instruction infused with a Rogerian student-centered approach in a seventh grade language arts classroom?

When the students' overall level of motivation was assessed, students in the treatment group accomplished significant gains in their self-perceived level of motivation as compared to the control group \(F(1, 80) = 9.3, \ p < .003 \eta^2 = .104\); thus, the Null Hypothesis 3 was rejected. These results conclude that implementing the Socratic method of instruction infused with a Rogerian student-centered approach indicated a significantly positive effect on the students' overall level of motivation.

4. To what extent does using the Socratic method of instruction infused with a Rogerian student-centered approach influence students' talents in school?

Talent was assessed and it was concluded that students in the treatment group realized significant gains in the level of perceived talent between the control group \(F(1, 80) = 4.4, \ p < .040 \eta^2 = .052\); therefore, the Null Hypothesis 4 was rejected. The results
indicated that the Socratic method of instruction infused with a Rogerian student-centered approach had a significant positive effect on the students’ self-perceived levels of talent.

5. How does using the Socratic method of instruction infused with a Rogerian student-centered approach relate to the students’ perception of context?

Context was measured and concluded that students in the treatment group realized significant gains in their perception of context compared to the control group \( (F, 1, 80) = 4.2, p < .044 \eta^2 = .050 \); therefore, the Null Hypothesis 5 was rejected. These results reflect a significantly positive difference between the treatment and control group; therefore, it is suggested that the Socratic method of instruction infused with a Rogerian student-centered approach indicated a significantly positive effect on the students’ self-perceived context.

6. What are the affects on the students’ efforts on tests while using the Socratic method of instruction infused with a Rogerian student-centered approach?

Effort was measured in this study and it was found that students in the treatment group failed to exhibit significant gains in their effort compared to the control group \( (F, 1, 80) = 2.5, p < .12 \eta^2 = .030 \); thus, Null Hypothesis 6 was not rejected. These results indicate that there exists no significant difference between the treatment and control group with regard to self-perceived efforts expended on taking standardized tests. Stage Five of Erikson’s Theory of Psychosocial Development, which established that the middle school adolescent struggles with the developmental crisis identified as Ego Identity vs. Role Confusion (Carducci, 1998), was considered to have had an overall effect on the students’ self-perceived levels of effort.
The last question was revealed through qualitative research, namely the Natural Inquiry Design (Guba & Lincoln, 1985). Eight participants were purposely selected (Patton, 2002) by the researcher from the middle school students who had received the Socratic method of instruction infused with a Rogerian student-centered approach in their language arts class, based upon the students’ ability to articulate thoughts, feelings, and perceptions. Through a journal writing experience and a focus group, these participants answered twelve questions regarding education and their experience with the Socratic method of instruction infused with a Rogerian student-centered approach. See Appendix G for the list of questions. The research question below was addressed by the students’ responses to the twelve questions.

7. How would students receiving a Socratic method of instruction infused with Rogerian student-centered approach in a seventh grade language arts classroom describe their experiences and their perceptions of education?

There were thirteen emerging themes that surfaced during this process of responding to the twelve questions. In addition to the twelve questions, the participants were asked on the day of the last interview to voice any desired additional information to help teachers understand their deep feelings. Many of the emerging themes were based upon the responses from this last request. The students identified five major themes regarding the importance of education from the journal writing experience and the six focus groups. The surfacing themes included: importance, key to freedom, success, opportunities, and goals. These themes reflect the views of Rogers (1969) regarding learning and its facilitation. The following tables, namely Table 4.5, 5.5, and 6.5, illustrate how these themes are reminiscent of Rogers’ views.
Table 4.5

*Students' Perceptions of Education and Rogers' Views*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Rogers' View</th>
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<tbody>
<tr>
<td><strong>Importance.</strong> The students unanimously agreed that education is extremely important in their lives.</td>
<td>“Human beings have a natural potentiality for learning” (p. 157).</td>
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<tr>
<td><strong>Key to Freedom.</strong> The participants perceive education as being the key to freedom and choice in life.</td>
<td>“It is when the individual has to take the responsibility for deciding what criteria are important to him, what goals he has been trying to achieve, and the extent to which he has achieved those goals, that he truly learns to take responsibility for himself and his directions” (p. 142-143).</td>
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<tr>
<td><strong>Opportunities, Success, and Goals.</strong> Many of the participants perceive education as the key to success and opportunity in life. In addition, it will help them obtain their life’s goals. The responses were heartfelt and in some instances brought tears to their eyes, as they revealed some hardships faced by family members.</td>
<td>“If self-initiated learning is to occur, it seems essential that the individual be in contact with, be faced by, a problem which he perceives as a real problem for him…It seems reasonably clear that for learning of the sort we are discussing it is necessary that the student, of whatever level, be confronted by issues which have meaning and relevance for him (p. 161).</td>
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Table 5.5

*Students' Perceptions of Teaching and Rogers' Views*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Rogers' View</th>
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<tr>
<td><em>Fair and Empathetic.</em> With regard to the characteristics of an effective teacher, the words fair and understanding continued to surface in the journal replies and the focus group.</td>
<td>“When the teacher has the ability to understand the students’ reactions from the inside, has a sensitive awareness of the way the process of education and learning seems <em>to the student</em>, then again the likelihood of significant learning is increased” (p. 111).</td>
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<tr>
<td><em>Caring and Compassionate.</em> The students individually and as a group agreed that a teacher must be caring and compassionate in order to reach the students and help them with their dreams.</td>
<td>“He can accept personal feelings which both disturb and promote learning—rivalry with a sibling, hatred of authority, concern about personal adequacy. The facilitator’s prizing or acceptance of the learner is an operational expression of his essential confidence and trust in the capacity of the human organism” (p. 109).</td>
</tr>
<tr>
<td><em>Listens.</em> The participants believe that when a teacher really listens to them, they can be much more successful in school and in life.</td>
<td>“In responding to expressions in the classroom group, he accepts both the intellectual content and the emotionalized attitudes, endeavoring to give each aspect the approximate degree of emphasis which it has for the individual or the group” (p. 165).</td>
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Table 6.5

**Students' Perceptions of Student-centered Learning and Rogers' Views**

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<thead>
<tr>
<th>Theme</th>
<th>Rogers' View</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Freedom, Confidence, and Smart.</em> With regard to the procedure used to implement the Socratic method infused with a Rogerian approach in the classroom, the students concluded that the process made them feel free to express their thoughts and feelings, confident in their responses, and it made them feel smart.</td>
<td>&quot;Those learnings which are threatening to the self are more easily perceived and assimilated when external threats are at a minimum&quot; (p. 159).</td>
</tr>
<tr>
<td><em>Understood and Voice.</em> The literature circles using the Socratic method infused with a Rogerian approach in the classroom, provided the students with a feeling of being understood by allowing them to have a voice in the classroom.</td>
<td>&quot;It is amazing that feelings which were completely awful, become bearable, when someone listens. It is astonishing how elements which seem insoluble become soluble when someone hears; how confusions which seem irremediable turn into relatively clear flowing streams when one is understood.&quot; (p. 226).</td>
</tr>
</tbody>
</table>
Conclusions

Both quantitative and qualitative results concurred on the positive effects of implementing the Socratic method of instruction infused with a Rogerian student-centered approach. The benefits of this pedagogical technique were twofold. First of all, the students' reading achievement score, overall motivation, talent, and context increased significantly. In addition to these quantifiable gains, the students revealed positive beliefs on their perceptions of education.

The quantitative results were obtained using the SPSS (Statistical Package for the Social Sciences) computer-based process of data analysis and presentation system in a multiple analysis of variance (MANOVA) with a pretest-posttest repeated measures factor determining the positive significant changes that occurred. The results showed a significant effect of treatment on the combination of all dependent measures (achievement, grades, motivation, talent, context, and effort) Pillai's trace .408 F(6, 75) = 8.6, p<.001; η² = .408 (moderate effect size). These results reflected a highly significant gain in the achievement scores, as determined by combining the three commonly used standardized reading assessments. These reading assessments are constructed of inquiries involving the use of critical thinking skills. Additionally, the results revealed positive effects on motivation, talent, and context. The two areas which did not receive positive results were self-reported grades and effort.

After further review, the self-reported grades did not change, due to the fact that the students indicated that their respective grades were at or above average levels. In addition, the instrument called for letter grades of A, B, C, D, and F, as opposed to actual numerical grades. This proved to be a limitation in the study.
Upon further examination, with regard to the measurement of effort, the students’ perception of test-taking reflected the overall views of the middle school adolescent. Erikson’s Theory of Psychosocial Development established that the middle school adolescent struggles with the developmental crisis identified as Ego identity vs. role confusion (Carducci, 1998); therefore, the researcher does not view these results as a limitation.

The qualitative findings revealed themes regarding the students’ perceptions of education, the teaching profession, and the Socratic method of instruction infused with a Rogerian student-centered approach, respectively. With regard to education, the surfacing themes included the importance of education, education as a key to freedom, education providing future opportunities, success, and goals. The participants concurred and ascertained that effective teachers should possess the following characteristics: fairness, caring, compassionate, understanding, and be good listeners. The Socratic method of instruction infused with a Rogerian student-centered approach is perceived as promoting academic freedom, heightened levels of confidence, voice, and the feeling of being understood.

The results of this mixed paradigm are merged together in Figure 4.5 to exemplify the usefulness of this study with relation to the role of the school counselor in the examination of pedagogical practices in collaboration with the fellow collegians.
Figure 5.5

Conclusions and Literature Review

Socratic and Rogerian

CONSTRUCTIVISTS

Quantitative Results
--Significant gains in Achievement Context

Qualitative Findings
--Freedom
--Important
--Voice
--Success
--Goals

PSYCHOSOCIAL

Quantitative Results
--Significant gains in Motivation Talent

Qualitative Findings
--Confident
--Understood
--Smart
--Listen

HUMANISTIC

Quantitative Results
--Significant gains in Motivation

Qualitative Findings
--Compassion
--Caring
--Fair
--Understanding

(Diaz, 2006)
In examining the holistic arch of the Socratic method infused with a Rogerian student-centered approach, the theoretical perspectives of constructivist, psychosocial and humanistic approaches provided a structural foundation from which the results rest upon to derive at the efficacy of implementing the treatment.

Within the framework of the constructivist foundations set forth by Dewey, Piaget, and Vygotsky, which proposes that "much of learning originates from inside the child" in which activities, discourse, and interaction with others, the results of the quantitative portion of this study found that significant gains were made in achievement and positive student perceptions of context, meaning that the students' learning occurred within the context of their introspective understanding of the text. The qualitative findings revealed that students felt a sense of freedom from within to explore new-found contexts, an impression that their respective views and ideas are important, their voices are heard, and their goals for future success were secured.

Under the psychosocial construct, which ascertains that the middle school adolescent struggles with the developmental crisis identified as Ego identity vs. role confusion, the quantitative results indicated a significant gain in the students' motivation and talent with regard to academic success. The qualitative results indicated that positive effects occurred in the students' level of confidence, security in being understood, perceptions of being "smart", and that someone of importance, namely an adult, is listening and validating their respective views and ideas.

The Humanistic approach, which emphasizes freedom, choice, values, personal responsibility, autonomy, purpose, and meaning, the quantitative results reflect a significant gain in the students' overall motivation toward learning and the educational
process as a whole. The qualitative findings strongly revealed the themes of compassion, caring, fairness, and understanding. The students concluded that these characteristics are a vital part of any educational process. In addition, these characteristics expand across the educational process from the administrators of instruction to the students.

**Limitations**

While this study identified a significant gain in academic achievement and motivation and the Socratic method of instruction has proven to be an effective pedagogical intervention, it is imperative to take into consideration the natural cognitive development of the child. Therefore, to ascertain that the Socratic method was the exclusive determining factor in the gains would assume a direct bias on the part of the researcher.

However, quantitative gains were made distinctly evident in this research, reflecting significance brought forth through the implementation of the Socratic method of instruction infused with a Rogerian approach. Additionally, the qualitative journal responses and focus group interviews did indicate major themes of confidence, compassion, fairness, understanding, voice, freedom, and success.

Further limitations were evident in the structure of the instruments used to assess the student’s self-reported grades. A numerical grade should have been requested, as the letter grades have a ten point range and cannot truly reflect any gain or loss. Also, the scale measuring the students’ effort towards the testing instruments should have been clearly labeled as such. The survey did not clarify which test to which the students were referring. It only asked about tests, in general; therefore, it remains unclear as to which test the students were addressing.
Recommendations

Even in the advent of recent academic stringency, the need to examine pedagogical practices, not just at the school counselor level, but at all levels, is significantly warranted. Based on the results of this study, recommendations for further studies are as follows:

1. An examination of a larger group study could be conducted to investigate the efficacy of large group Socratic method of instruction infused with a Rogerian approach.

2. This study could be replicated in a high school setting, which will reflect the views of a slightly different demographic.

3. A longitudinal study could be performed to determine any long range effects on students taught using the Socratic method of instruction infused with a Rogerian student-centered approach.

4. Since the highest growing population failing to meet academic standards required for high school completion is the Hispanic male, this study could focus on the efficacy of implementing the Socratic method of instruction infused with a Rogerian student-centered approach on this population.

5. An examination of the efficacy in teaching this method to teachers in preparatory classes at the university level could be researched.

In conclusion, Carl Rogers, as far back as 1939, ascertained the importance for schools to recognize that “youngsters who were rejected at home and who consequently respond much better at school when their need for recognition was satisfied rather than attacked.” Furthermore, the perceptive Greek philosopher, Plato once noted, “Do not
train children to learning by force and harshness, but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each” (Hazlehurst, 2004). Following this keystone premise set forth by Plato regarding the manner in which to train a child learn, the significance of learning and teaching styles needs continual exploration.

Based on the works of Rogers’ (1969), this approach proposes that students accomplish greater results along with person growth in areas of higher self-confidence, creativity, openness to new experiences, self-respect, and respect towards others and their environment. The student-centered approach rests upon the teacher acting as a facilitator in assisting students to think through complex texts and situations, while encouraging collaboration and in-depth reflection (Pedersen & Williams, 2004). With regards to the development of problem-solving skills, this approach enhances motivation and allows the students to take ownership of their respective goals and activities, which ultimately makes academic tasks more meaningful and encourages a significant depth of understanding and intrinsic motivation.

To conclude, this researcher believes that this entire study can be equated back to what Carlos stated in the focus group:

When a teacher shows love for her students, she helps them understand their purpose in life, as well. There is a song that is called, “The Reason” by a group called Hoobastank, and in this song they start by singing, ‘I’m not a perfect person. There’s many things I wish I didn’t do. But I continue to learn . . . I’ve found a reason for me to change who I used to be. A reason to start over new and the reason is you.’ Man, if teachers could only think
this way and really care about us, life would be good.

This researcher/educator has "found a reason", and like Socrates and Rogers, has discovered that the reason is you, the infinite learner!
References


Balfanz, R., & Legters, N. (2001). *How many central city high schools have a severe dropout problem, where are they located, and who attends them?* Cambridge, MA: Harvard University, Civil Rights Project.


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Diaz, T. C., Personal communication, December 5, 2004.

Dimmitt, C. (2003). Transforming school counseling practice through collaboration and


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Team: A statewide collaborative model to transform school counseling.


*Community College Journal, 65*(4), 30-34.


Socratic Method with Rogerian Student-centered


APPENDICES

For samples of the three reading assessment instruments, please visit the websites listed.

Appendix A
Pre-test
Texas Assessment of Knowledge and Skills Reading Test (Spring, 2003)

Post-test
Texas Assessment of Knowledge and Skills Reading Test (Spring, 2004)

Appendix B
Standardized Testing Assessment in Reading, (2000)
http://www.renlearn.com/starreading/samplescreens.htm

Appendix C
Pre-test
Gates MacGinitie Reading Test, (2000), Form S

Post-test
Gates MacGinitie Reading Test, (2000), Form T
Appendix D

MORGAN-JINKS STUDENT EFFICACY SCALE

<table>
<thead>
<tr>
<th>Statement</th>
<th>Really Agree</th>
<th>Kind of Agree</th>
<th>Kind of Disagree</th>
<th>Really Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I work hard in school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I could get the best grades in class if I tried enough.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Most of my classmates like to do math because it is easy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I would get better grades if my teacher liked me better.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Most of my classmates work harder on their homework than I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I am a good science student.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I will graduate from high school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I go to a good school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. I always get good grades when I try hard.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
10. Sometimes I think an assignment is easy when the other kids in class think it is hard.

11. I am a good social studies student.

12. Adults who have good jobs probably were good students when they were kids.

13. When I am old enough I will go to college.

14. I am one of the best students in my class.

15. No one cares if I do well in school.

16. My teacher thinks I am smart.

17. It is important to go to high school.

18. I am a good math student.

19. My classmates usually get better grades than I do.

20. What I learn in school is not important.

21. I usually understand my homework assignments.
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22. I usually do not get good grades in math because it is too hard.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. It does not matter if I do well in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Kids who get better grades than I do get more help from the teacher than I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. I am a good reading student.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. It is not hard for me to get good grades in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. I am smart.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. I will quit school as soon as I can.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. Teachers like kids even if they do not always make good grades.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. When the teacher asks a question I usually know the answer even if the other kids don't.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix E

Student Opinion Scale

© James Madison University, 1998

Please think about the test that you just completed. Mark the answer that best represents how you feel about statements 1 through 10 below.

A = Strongly Disagree  D = Agree
B = Disagree             E = Strongly Agree
C = Neutral

1. Doing well on this test was important to me.
2. I engaged in good effort throughout this test.
3. I am not curious about how I did on this test relative to others.
4. I am not concerned about the score I receive on this test.
5. This test was not important to me.
6. I gave my best effort on this test.
7. While taking this examination, I could have worked harder on it.
8. I would like to know how well I did on this test.
9. I did not give this test my full attention while completing it.
10. While taking this test, I was able to persist to completion of the task.
Appendix F

Four-Stage Model of ZPD

![Four-Stage Model of ZPD Diagram]

Appendix G

Research Questions for Focus Group Regarding a Middle School Students’ Perceptions of the Socratic Method Instruction Infused with a Rogerian Student-centered Approach to Learning in Middle Schools on Student Academic Performance, Motivation, and Student-efficacy

14. What does “a good education” mean to you?
15. How important is a good education to you?
16. Explain the one lesson that has made a lasting impression in your mind.
17. How important is the teacher to your education?
18. What makes a good teacher?
19. How can teachers help students learn better?
20. Describe the Socratic Method of Instruction.
21. What is your opinion of the Socratic Seminars held in your language arts class?
22. How do you feel during the Socratic Seminars in your language arts class?
23. How has questioning helped or not helped in your learning and understanding of various topics in other classes, besides language arts?
24. How have the Socratic Seminars had an effect on you in any other way, other than learning that takes place here at school?

(Diaz, 2004)
Appendix H

Sample of a Socratic Method of Instruction Lesson

When I Heard the Learn'd Astronomer

When I heard the learn'd astronomer.
When the proofs, the figures, were ranged in columns before me.
When I was shown the charts and diagrams to add, divide and measure them.
When I sitting heard the astronomer where he lectured with much applause in the lecture room.
How soon unaccountable I became tired and sick.
Till rising and gliding out I wander'd off by myself.
In the mystical moist night air, and from time to time.
Look'd up in perfect silence at the stars.

(1855, Leaves of Grass)

--Walt Whitman

http://www.poets.org

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Appendix H (continued)

When I Heard the Learn'd Astronomer (1855)
by
Walt Whitman

Activity Directions: What phrases or lines help you to infer the conflict between the poet's view of the stars and the poet's view of astronomy? Be prepared to discuss.

<table>
<thead>
<tr>
<th>Poet's feelings about the stars</th>
<th>Poet's feelings about astronomy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Questions for discussion:
What message do you think the poet is trying to convey with this poem? How do you know this? Do you agree or disagree with the message? What other observations did you make regarding this literary work?
Appendix I

CONSENT FORM

I, ____________________________________________, grant my child, ________________________________________, permission to participate in a research study designed to investigate students' perceptions of education. This study is being conducted by Ms. Edith A. Diaz, MS, CSC, who is enrolled in the Doctoral Program for Counselor Education at Texas A&M University-Corpus Christi.

I understand that my child will be asked to participate in journal writings and focus group discussions about his or her thoughts on education. I understand that the amount of time required to complete these six focus group discussions will be approximately twelve hours.

I understand that any information obtained in this study, recorded through written notes, audio recordings or typed transcripts, will be produced only by Ms. Edith A. Diaz, and the identity of my child and all the participants will be kept confidential. Under this condition of anonymity, I agree that any information obtained from this research may be used in any way thought best for publication and education.

I understand that participation is voluntary, that there is NO personal risk or discomfort directly involved with this research, and that I am free to withdraw my consent and discontinue participation in this study at any time. I understand non-participation will not result in penalty or loss of benefits to which I am otherwise entitled nor will withdrawal of my consent affect my standing at this public middle school.

At the conclusion of the study, a summary of results will be made available to all interested participants.

If I have any questions or problems that arise in connection with my participation in this study, I should contact Ms. Edith A. Diaz at 361-878-1426, 361-992-7312, or eadiaz@ccisd.us

__________________________________________
DATE Signature of PARENT/GUARDIAN

__________________________________________
DATE Signature of INVESTIGATOR
Ms. Edith A. Diaz, MS, CSC

THIS PROJECT HAS BEEN APPROVED BY THE INSTITUTIONAL REVIEW BOARD AT TEXAS A&M UNIVERSITY-CORPUS CHRISTI.
Appendix J

ASSENT FORM

I, ________________________________, grant my permission to participate in a research study designed to investigate my perceptions of education. This study is being conducted by Ms. Edith A. Diaz, MS, CSC, who is enrolled in the Doctoral Program for Counselor Education at Texas A&M University-Corpus Christi.

I understand that I will be asked to participate in journal writings and focus group discussions about my thoughts on education. I understand that the amount of time required to complete these six focus group discussions will be approximately twelve hours.

I understand that any information obtained in this study, recorded through written notes, audio recordings or typed transcripts, will be produced only by Ms. Edith A. Diaz, and my identity and the identity of all the participants will be kept confidential. Under this condition of anonymity, I agree that any information obtained from this research may be used in any way thought best for publication and education.

I understand that participation is voluntary, that there is NO personal risk or discomfort directly involved with this research, and that I am free to withdraw my assent and discontinue participation in this study at any time. I understand non-participation will not result in penalty or loss of benefits to which I am otherwise entitled nor will withdrawal of my consent affect my standing at this public middle school.

At the conclusion of the study, a summary of results will be made available to all interested participants.

If I have any questions or problems that arise in connection with my participation in this study, I should contact Ms. Edith A. Diaz at 361-878-1426, 361-992-7312, or eadiaz@ccisd.us

_________________________  Signature of PARTICIPANT

_________________________  Signature of INVESTIGATOR
Edith A. Diaz, MS, CSC

THIS PROJECT HAS BEEN APPROVED BY THE INSTITUTIONAL REVIEW BOARD AT TEXAS A&M UNIVERSITY-CORPUS CHRISTI.
Appendix K

Dear Chairperson of the Institutional Review Board:

This letter serves to inform Texas A&M University-Corpus Christi of my knowledge, approval, and support of the proposed research conducted by Ms. Edith Ann Diaz at Tom Browne Middle School. Ms. Diaz is currently a 7th grade language arts teacher at Tom Browne Middle School, and she is also a candidate for the Degree of Doctor of Philosophy in Counselor Education at Texas A&M University-Corpus Christi. Ms. Diaz’s proposed study is entitled, The Role of the School Counselor Regarding the Efficacy of the Socratic Method and Inquiry-based Instruction in Middle Schools on Student Academic Performance, Motivation, and Self-efficacy.

Edith Ann Diaz, MS, CSC has informed me, Donna R. Adams, principal at Tom Browne Middle School of her experimental study, which proposes to examine the relationship between the implementation of the Socratic method and Inquiry-based instruction on student academic performance and motivation. It is my understanding that the quantitative portion of the proposed study will be measured via the following testing instruments: (1.) Texas Assessment of Knowledge and Skills Reading Test, (2.) STAR Reading Test, and the (3.) Gates-MacGinitie Reading Test. These three testing instruments have been a part of the school’s Campus Improvement Plan since 1996. (Texas Assessment of Knowledge and Skills Reading Test was previously Texas Assessment of Academic Skills Reading Test).

The qualitative portion of the study will be measured using the Morgan-Jinks Self-efficacy Scale, the Student Opinion Scale (from James Madison University), and through the consensual interviewing process of approximately six to eight students involved in the Socratic Method of instruction. I have examined both the Morgan-Jinks Self-efficacy Scale and the Student Opinion Scale and have found both instruments and neither instrument poses a threat to the educational process or well being of the participating students. Written permission will be obtained from the parents and the students and the participating students will be given the research questions to be explored in advance. The focus group discussions will last from one and a half to two hours for six weeks. Only Ms. Diaz and I will be given the names of the participants in this study and no repercussions will be assessed against the volunteering participants. In addition, the participants will not be subjected to any risks and confidentiality will be maintained throughout the research process. I have been assured that the signed consent and assent forms will be locked in a filing cabinet for seven years after the youngest participant’s eighteenth birthday.

All instruments used in this study will become a part of the Campus Improvement Plan for 7th grade language arts at Tom Browne Middle School and will be implemented in the school year 2005-2006. If you have any questions regarding this approval or my understanding of this proposed research, please contact me at the contact information listed in the above header. Thank you for time.

Sincerely,

Ms. Donna R. Adams
Appendix L

Hi Edith,

Yes, you have permission to use the scale. The scale is reproduced in the April 1999 edition of Clearing House. The best of luck with your dissertation!

Vicky Morgan, Ph.D.
245 DeGarmo
Illinois State University

From: E Diaz77625@aol.com [mailto:EDiaz77625@aol.com]
Sent: Wednesday, July 12, 2006 9:23 AM
To: jjjinks@ilstu.edu; Morgan Vicky Lee
Subject: MJSES Scales

Dear Professors Morgan and Jinks:

My name is Edith A. Diaz and I am a doctoral student at Texas A&M University-Corpus Christi. I am writing to you in request of your permission to utilize the Morgan-Jinks Student Efficacy Scale in order to conduct research for my dissertation, which is tentatively entitled, The Efficacy Of Implementing Rogerian Counseling Skills Infused With A Socratic Approach Of Instruction In Seventh Grade Language Arts To Enhance Academic Achievement In Reading And Student Motivation. I am also requesting a copy of the scale used to measure the 34-item instrument. Please contact me at your earliest convenience regarding this request. Thank you, in advance, for your cooperation.

Sincerely,
Edith A. Diaz, MS, CSC

Contact Information
Edith A. Diaz, MS, CSC
7605 Clearbrook Dr.
Corpus Christi, Texas 78413
(361) 992-7312
(361) 960-1950
ediaz77625@aol.com
Appendix M

Dear Edith,

You may certainly use the Student Opinion Scale in your study. Please contact me if you have any questions about the instrument. I will help however I can. I wish you the best of luck with your dissertation.

Sincerely,
Donna L. Sundre, EdD
Executive Director of the Center of Assessment and Research Studies
Professor of Graduate Psychology
James Madison University
821 S. Main Street, MSC 6806
24 Anthony-Seeger Hall
Harrisonburg, VA 22807
Phone: 540.568.3483
Fax: 540.568.7878
E-mail: sundredl@jmu.edu

From: EDiaz77625@aol.com [mailto:EDiaz77625@aol.com]
Sent: Wednesday, June 30, 2005 12:16 AM
To: sundredl@jmu.edu; Donna Sundre
Subject: SOS Scale

Dear Professors Morgan and Jinks:

My name is Edith A. Diaz and I am a doctoral student at Texas A&M University-Corpus Christi. I am writing to you in request of your permission to utilize the Morgan-Jinks Student Efficacy Scale in order to conduct research for my dissertation, which is tentatively entitled, The Efficacy Of Implementing Rogerian Counseling Skills Infused With A Socratic Approach Of Instruction In Seventh Grade Language Arts To Enhance Academic Achievement In Reading And Student Motivation. I am also requesting a copy of the scale used to measure the 34-item instrument. Please contact me at your earliest convenience regarding this request. Thank you, in advance, for your cooperation.

Sincerely,
Edith A. Diaz, MS, CSC

Contact Information
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(361) 992-7312
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