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The Influence Of High School Dramatic Arts Classes On Remedial Readers On The Florida Comprehensive Assessment Test

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THE INFLUENCE OF HIGH SCHOOL DRAMATIC ARTS CLASSES ON REMEDIAL READERS ON THE FLORIDA COMPREHENSIVE ASSESSMENT TEST

by

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ABSTRACT

This is the age of accountability in public schools. The public wants to know that the schools are producing high achieving students who are ready for the future. With this push for accountability the rise in standardized testing should not be surprising. However, it is difficult to test an abstract course such as the arts. With the increase of standardized testing and the recent tough economic times, it is no wonder that performing arts classes in our public schools are often the first to be pared down or dissolved (Mendels, 2008). It is the presiding feeling that these courses, while nice and fun for the students, do not offer any tangible, real, or marketable skills. “...imparting knowledge about the arts typically has not been a priority goal in our nation’s schools” (Ward, 1983, ¶ 2).

This study explored the benefits that students can achieve through their participation in the dramatic arts courses including, but not limited to, enhancement of reading and verbal scores. This study was designed to illustrate that the arts are a natural and necessary part of the high school educational experience and can play an instrumental part of learning even in a distressed economy, and/or in a regulated testing arena.

Students who were freshmen or sophomores in 2008-2009 and scored a Level 1 or 2 (below average) score on the reading portion of the state test, the FCAT, and were from Orange and Seminole Counties in Florida became the sample set. These students were disaggregated into categories of students who took a dramatic arts course or not, by gender, by race, and by socioeconomic
status to determine if participation in a dramatic arts course in high school would help raise a remedial reading score on the required state test. Although the data did not show a statistical significance, it did show a positive trend in a few of the tested areas. Suggestions for why the data appear to show only a trend and not significance are discussed further in Chapter 5.
I would like to dedicate this work of labor and art to my husband, Rich, and children, Tyler and Alison, who waited patiently for me to finish.

I am now able to play on the boat and join the gym as I promised. Thanks to my friend, Jessica Webb, for the mandatory study sessions and the never ending supply of desserts.
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“Criticism, like rain, should be gentle enough to nourish a man’s growth without destroying his roots” said Frank Clark. Dr. Doherty, you have nourished so kindheartedly that I will be a much stronger leader from working under your guidance.

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LIST OF ACRONYMS/ABBREVIATIONS

1. **FCAT**: The Florida Department of Education administers the Florida Comprehensive Assessment Test (FCAT) to public school students in grades 3 through 11 by the Florida Department of Education. It is designed to measure skills represented in the Sunshine State Standards in reading, mathematics, science and writing. Student progress is reported individually through yearly learning gains.

2. **FRL**: Free and Reduced Lunch: (FRL) is defined by the Florida Department of Education as The National School Lunch Program, established in 1946 under the National School Lunch Act, provides free and reduced-price lunches to schoolchildren from economically disadvantaged families. The program operates in all 50 states and the District of Columbia, as well as in Guam, Puerto Rico, the U.S. Virgin Islands, and Department of Defense schools. Each year, the United States Department of Agriculture (www.fns.usda.gov) publishes income guidelines for program eligibility that factor household income and size in relation to federal poverty guidelines. In 2009-10, for instance, a student from a four-person household in Florida with annual household income less than $28,665 is eligible for free lunches (Florida Department of Education, 2010).

3. **NELS**: the National Educational Longitudinal Study (NELS) of 1988 a data set that are referred to in many studies.
4. **Socioeconomic Status**: (SES) is “a combined measure of an individual’s or family’s economic and social position relative to others, based on income, education, and occupation. When analyzing a family’s SES, the mother’s and father’s education and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed.

Socioeconomic status is typically broken into three categories, high SES, middle SES, and low SES to describe the three areas a family or an individual may fall into. When placing a family or individual into one of these categories, all variables are assessed.” (Reference.com, n.d.)

5. **SAT**: The Scholastic Aptitude Test is administered by the College Board. “The SAT is a globally recognized college admission test that lets you show colleges what you know and how well you can apply that knowledge. It tests your knowledge of reading, writing and math — subjects that are taught every day in high school classrooms. Most students take the SAT during their junior or senior year of high school, and almost all colleges and universities use the SAT to make admission decisions” (College Board, 2010).

6. **English Language Learners**: (ELL) English Language Learners is defined as, "Where inability to speak and understand the English language excludes national origin-minority group children from effective participation in the educational program offered by a school district, the district must
take affirmative steps to rectify the language deficiency in order to open its instructional program to these students" (U.S. Department of Education, 2010).
CHAPTER ONE: INTRODUCTION

“President Kennedy said that ‘when the dust of centuries has passed over our cities we, too, will be remembered, not for victories or defeats in battles or politics but rather for our contributions to the human spirit.’ It is this sentiment that motivates us to produce and present the best of the performing arts and to play a major role in educating and enlightening the nation’s children. …. We believe these programs play a vital role in supplementing the academic experiences of the young people we reach” (Kaiser, 2007, ¶ 2).

In tough economic times, performing arts classes in our public schools are often the first to be pared down or dissolved (Mendels, 2008). It is the presiding feeling that these courses, while nice and fun for the students, do not offer any tangible, real, or marketable skills. “…imparting knowledge about the arts typically has not been a priority goal in our nation’s schools” (Ward, 1983, ¶ 2). This study explored the benefits that students can achieve through their participation in the dramatic arts courses including, but not limited to, enhancement of reading and verbal scores.

Statement of the Problem

According to No Child Left Behind, the arts are considered a part of the “core” curriculum. However, according to Florida State Law 1008.25, any child who scores a level one or two on the FCAT reading portion must have reading remediation in order to strengthen weak reading skills. Often it is the elective courses that are the first to be taken away to accommodate the additional
required remediation. Additionally, in difficult budget times it seems that courses in the Arts are one of the first to reach the financial “chopping block.”

Close to 90 percent of America parents believe the arts should be taught in school, over 90 percent believe the arts are an important part of a well-rounded education, and 95 percent believe that the arts are important in preparing children for the future (Americans for the Arts, 2001).

Even though the arts have been designated as a part of the recommended core, many schools feel the need to push them aside in order to comply with the mandated extra reading courses. “… the federal No Child Left Behind Law ratcheted up accountability for academic achievement across the country since its enactment in 2002, that accountability has centered largely on reading and math often at the expense of other subjects, including arts” (Bodilly, Augustine, & Zakaras, 2008, ¶3). To date, there has been little research to show the effects of a dramatic arts course on a remedial reader’s scores on a state mandated test. This study was designed to begin the process of looking at the benefits of high school dramatic arts courses in conjunction with elevating reading scores in remedial readers.

**Significance of the Study**

This study was conducted to analyze the difference, if any, of students who are enrolled in a remedial reading class to those who are enrolled in both a remedial reading class and a dramatic arts course. Dramatic arts courses were listed by the Florida Department of Education and were identified as: Introduction
to Drama (0400300); Drama I or II (0400310 or 0400320); Acting I or II (0400370 or 0400380); Comprehensive Theater I or II (0400450 or 0400460); Musical Theater I or II (1300400 or 1300410); American Musical Theater I or II (1300390 or 1300391); Stagecraft I or II (0400410 or 0400420); and Theater Technology (0400600).

This study was also conducted to analyze whether gender, ethnicity or socioeconomic status made a significant impact in the success of a student participating in a dramatic arts course on the FCAT.

It is optimistic that this study would provide high school principals and dramatic arts teachers with data that can be used to show merit in offering and sustaining dramatic arts courses in their schools in addition to the merits that the courses offer within themselves. Finally, the results of this study will both add to the body of knowledge, and serve as a foundation for further research on the influence theater arts has on student performance.

**Purpose of the Study**

The purpose of this study was to explore the possible benefits of students who had low scores in reading and verbal portions of standardized tests and who were not enrolled in any type of dramatic arts course compared to students with low scores in reading and verbal portions of standardized tests who were enrolled in dramatic arts courses. The purpose was also to become conscious of
the possible benefits of the dramatic arts classes that extend past the performing arts doors.

**Research Questions and Hypotheses**

1. **What relationship, if any, exists in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?**
   
   H₀: There is a relationship in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

2. **What relationship, if any, exists in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?**

   H₀: There is a relationship in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.
female students in remedial reading classes who do not participate in
dramatic arts courses, as demonstrated by their performance on the
FCAT Reading assessment.

3. What relationship, if any, exists in reading achievement among ninth and
tenth grade students based on socioeconomic status enrolled in remedial
reading classes, who participate in dramatic arts courses and between
those students in remedial reading classes who do not participate in
dramatic arts courses, as demonstrated by their performance on the FCAT
Reading assessment?

H₀: There is a relationship in reading achievement among ninth and
tenth grade students based on socioeconomic status enrolled in
remedial reading classes, who participate in dramatic arts courses and
between those students in remedial reading classes who do not
participate in dramatic arts courses, as demonstrated by their
performance on the FCAT Reading assessment.

4. What relationship, if any, exists in reading achievement among ninth and
tenth grade Black, Hispanic and White students enrolled in remedial
reading classes, who participate in dramatic arts courses and between
those students in remedial reading classes who do not participate in
dramatic arts courses, as demonstrated by their performance on the FCAT
Reading assessment?
H₀: There is a relationship in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

5. What influence, if any, does participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes?

H₀: There is an influence in participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes.

Methodology

The population for this study consisted of ninth and tenth grade students from all of the Seminole County, Florida, high schools, and all of the Orange County, Florida, high schools. The sample size included 15,895 students from both school districts. FCAT data used were from the 2008-2009 school year.

The data used in this study were FCAT reading scores provided by the Florida Department of Education of enrolled ninth and tenth grade students during the 2008-2009 school year. Students who were identified by their 2008-2009 FCAT reading score as being in need of reading remediation by their score
as level one and two readers were divided into two subgroups labeled Group A and Group B. Group A was comprised of those students who took remediation and who do not take a course in the dramatic arts. Group B consisted of those students who enrolled remediation and also choose to take a course in the dramatic arts. At the conclusion of the school year, when FCAT reading scores were released, the developmental scale scores of Group A (those freshmen and sophomores who had intensive reading only) and Group B (those freshmen and sophomores who had intensive reading and a course in the dramatic arts) were compared to determine if there was a statistically significant difference in reading and verbal performance. The study was further disaggregated into categories of ethnicity, gender, and socioeconomic status.

Delimitations of the Study

- The study was delimited to the high schools in the Central Florida area in Seminole and Orange Counties.
- Students who were freshmen and sophomores in the 2008-2009 school year who were enrolled in intensive reading courses were studied.
Limitations of the Study

The limitations of this study include the following:

- The study did not take into account for factors that may influence the FCAT scores on reading (i.e.; student not feeling well that day, etc.)
- The study did not take into account student motivation to succeed in the dramatic arts class.
- The study did not take into account the emphasis of arts offered at the elementary and middle school levels.

Definition of Terms

The following definitions are provided for terms that will be referenced throughout this study.

**Affective domain:** The affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes (Krathwohl, Bloom, Masia, 1973).

**At-Risk Students:** At-risk students are students who are not experiencing success in school and are potential dropouts. They are usually low academic achievers who exhibit low self-esteem. Disproportionate numbers of them are males and minorities (Donnelly, 1987).

**Attendance Rate:** According to Florida statutes 1003.24, “Each district school board shall establish an attendance policy that includes, but is not limited
to, the required number of days each school year that a student must be in attendance and the number of absences and tardinesses after which a statement explaining such absences and tardinesses must be on file at the school. Each school in the district must determine if an absence or tardiness is excused or unexcused according to criteria established by the district school board.”

**Cognitive domain:** The cognitive domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills (Bloom, 1956).

**Dramatic Arts Course:** These courses are listed by the Florida Department of Education and are identified as: Drama 1 or 2, Acting 1 or 2, Stagecraft 1 or 2, Introduction to Drama, Musical Theater 1 or 2, Comprehensive Theater 1 or 2, American Musical Theater 1 or 2 and Theater Technology.

**Dropout Rate:** “Florida’s dropout rate is the percentage of ninth- through twelfth-grade dropouts compared to the ninth- through twelfth-grade total, year-long student membership. A dropout is defined as a student who withdraws from school for any of several reasons without transferring to another school, home education program, or adult education program” (Florida Department of Education, 2009).

**Florida Comprehensive Assessment Test:** The Florida Department of Education administers the Florida Comprehensive Assessment Test (FCAT) to public school students in grades 3 through 11 by the Florida Department of
Education. It is designed to measure skills represented in the Sunshine State Standards in reading, mathematics, science and writing. Student progress is reported individually through yearly learning gains.

**Free and Reduced Lunch:** (FRL) is defined by the Florida Department of Education as The National School Lunch Program, established in 1946 under the National School Lunch Act, provides free and reduced-price lunches to schoolchildren from economically disadvantaged families. The program operates in all 50 states and the District of Columbia, as well as in Guam, Puerto Rico, the U.S. Virgin Islands, and Department of Defense schools. Each year, the United States Department of Agriculture (www.fns.usda.gov) publishes income guidelines for program eligibility that factor household income and size in relation to federal poverty guidelines. In 2009-10, for instance, a student from a four-person household in Florida with annual household income less than $28,665 is eligible for free lunches (Florida Department of Education, 2010).

**Learning gain:** Learning gain is defined by the Florida Department of Education by monitoring the following criteria. In essence, a learning gain is whenever a student improves their test score from one year to the next.

Since FCAT reading and math exams are given in grades 3-10, it is possible to monitor how much student learn from one year to the next. Student can demonstrate learning gains in any one of three ways: improve achievement levels from 1-2, 2-3, 3-4, or 4-5; or maintain within the relatively high levels of 3, 4, or 5; or demonstrate more than one year’s growth within achievement levels 1 or 2 (does not include retained students). (Florida Department of Education, n.d.)
NELS: The National Educational Longitudinal Study (NELS) of 1988 a
data set that are referred to in many studies.

Psychomotor domain: The psychomotor domain includes physical
movement, coordination, and use of the motor-skill areas. Development of these
skills requires practice and is measured in terms of speed, precision, distance,
procedures, or techniques in execution (Simpson, 1972).

Quartile: “Quartiles are values that divide a sample of data into four
groups containing (as far as possible) equal numbers of observations. A data set
has three quartiles. References to quartiles often relate to just the outer two, the
upper and the lower quartiles; the second quartile being equal to the median. The
lower quartile is the data value a quarter way up through the ordered data set;
the upper quartile is the data value a quarter way down through the ordered data
set” (Easton & McColl, 1997).

Remedial Readers: For the purposes of this study, remedial readers are
those students who scored a Level 1 or 2 on the FCAT Reading Assessment in
the 2007-2008 school year and were consequently placed into an intensive
reading course in addition to their English class during the 2008-2009 school
year.

Socioeconomic Status: (SES) is a “combined measure of an individual's
or family's economic and social position relative to others, based on income,
education, and occupation. When analyzing a family’s SES, the mother's and
father’s education and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed.

Socioeconomic status is typically broken into three categories, high SES, middle SES, and low SES to describe the three areas a family or an individual may fall into. When placing a family or individual into one of these categories, all variables are assessed.” (Reference.com, n.d.)

Theoretical Framework

Although an early supporter of Piaget’s developmental stages, Howard Gardner came to believe that Piaget opened dialogue about children’s developmental stages but did not go far enough to accommodate all types of learning (Gardner, 2008a). The theoretical framework for this dissertation has roots in Jersild, Piaget and Montessori, but followed primarily Howard Gardner’s theory of multiple intelligences. The evolution of Jersild’s, Piaget’s and Montessori’s theories as they helped shape Howard Gardner’s own theories and ideology are discussed in Chapter 2.

While many individuals believe that Gardner set out to dislodge IQ and standard intelligence theory, in fact he did not have this target in mind when he began the research that led to the theory. Indeed, as one who had done well on standardized tests and had been trained in the Piagetian tradition, he had devoted little thought or study to theories of intelligence altogether. Rather, it was his empirical work with normal and gifted children, on the one hand, and with brain-damaged patients on the other, that convinced him that the standard view of a ‘single, unitary, undecomposable intelligence’ could not be correct. The work of synthesizing that led to MI theory consisted of surveying a whole set of literature and disciplines that might yield a more comprehensive and more veridical notion of human intellect.
The most important steps taken by Gardner involved arriving at a working definition of ‘an intelligence’ and devising a set of criteria of what counts as an intelligence. As he describes it, an intelligence is a biological and psychological potential to solve problems and/or create products that are valued in one or more cultural contexts. Armed with this definition and these criteria, Gardner identified seven relatively autonomous capacities that he named the multiple intelligences: linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. In more recent writings, Gardner added an eighth (naturalist) intelligence and continues to speculate about a possible ninth (existential) intelligence. (Gardner, 2008b)

As we commit to developing all of the intelligence levels, we must understand that the arts demand a fresh look at methods of appraisal. In using all of the intelligences, we help the “standard” or “accepted” ones of math and linguistics. “Gardner considers it critical to recognize that the arts build upon and integrate the other five forms of intelligence -- that is, the other five ‘ways of learning and knowing.’ He concludes that teaching the arts themselves, as well as using the arts to teach other disciplines, enables educators to reach many students who are not now succeeding in school and to reach all students more deeply” (K-12 News Briefs, ¶2). Gardner's seven levels of intelligence include linguistic intelligence, logical-mathematical intelligence, musical intelligence, bodily-kinesthetic intelligence, special intelligence, interpersonal intelligence, and intrapersonal intelligence.

When studying a script, the student must have a concrete knowledge of vocabulary, time period, syntax and people. Actors must then take this linguistic, historical knowledge and use their bodily-kinesthetic, interpersonal and
intrapersonal intelligences to create a believable world for himself and his audience. Students who design sets or lights use mathematical solutions, measurements and spatial relationships consistently. In addition to the basic linguistic and math intelligences, however, the dramatic arts mesh all of the intelligences into a cohesive experience (McCarthy, Ondaatje, Zakaras & Brooks, 2004).

**Summary**

One of the goals of No Child Left Behind Act of 2001 was to recognize the arts as a part of the core curriculum. However, according to Florida State law 1008.25, any child who scored a level one or two on the FCAT reading portion had to have reading remediation in order to strengthen weak reading skills. Using dramatic arts courses to help with reading deficiencies may help blend the national requirements to acknowledge the arts as essential, while accommodating the state laws to help remedial readers.

Chapter One introduced the topic and the purpose of the study. Chapter Two presents the literature review to support the background and evidence of the topic. Chapter Three details the methodology of the data collection and process. Chapter Four includes the data and the analysis of the data. Finally, Chapter Five includes a summary, conclusions and offers suggestions for future research.
CHAPTER TWO: REVIEW OF THE LITERATURE

Brief Background

Arthur Jersild began studying the idea of children using what seemed like innocent play as an actual learning tool. “A child’s imagination plays an important role in all aspects of his development” (Jersild, p.383). Jean Piaget furthered that research. “According to Piaget, play serves an important function in early cognitive development. … In play there is a relaxation of effort; a child exercises, solidifies, and extends reaction patterns that have emerged during the course of his development” (Jersild, p115).

Piaget’s theories encompass the idea that children are born with a few skills and develop them through assimilation and accommodation. “Both of these processes are used throughout life as the person increasingly adapts to the environment in a more complex manner” (Huit & Hummel, 2003, ¶6). According to Piaget, children as a whole progress through four distinct stages and a child cannot progress from one to the other before they have successfully completed the stage that they are in.

Many pre-school and primary programs are modeled on Piaget's theory…. Discovery learning and supporting the developing interests of the child are two primary instructional techniques. It is recommended that parents and teachers challenge the child's abilities, but NOT present material or information that is too far beyond the child's level. It is also recommended that teachers use a wide variety of concrete experiences to help the child learn (e.g., use of manipulatives, working in groups to get experience seeing from another's perspective, field trips, etc). (Huit & Hummel, 2003, ¶13)
From those theories Maria Montessori’s proposals regarding learning through play should be mentioned. Even though her ideas predated Piaget, they remain an integral part of the ideology that shape how children learn and think.

Montessori emphasizes learning through all five senses, not just through listening, watching, or reading… Learning is an exciting process of discovery, leading to concentration, motivation, self-discipline, and a love of learning…. Research studies show that Montessori children are well prepared for later life academically, socially, and emotionally. In addition to scoring well on standardized tests, Montessori children are ranked above average on such criteria as following directions, turning in work on time, listening attentively, using basic skills, showing responsibility, asking provocative questions, showing enthusiasm for learning, and adapting to new situations. (Olaf, 2009)

However, Montessori did not go far enough for this researcher. Where Montessori stops, Howard Gardner picks up and develops even further. From Montessori and Piaget to Howard Gardner is not such a huge or illogical leap.

Although working in different cultures and different times, Montessori and Gardner came to many of the same conclusions regarding human development. First, both Montessori and Gardner derived their theories based upon daily, firsthand observation and experience working with people, both normal and with exceptionalities…. These experiences enabled them both to understand and appreciate the wide range of abilities and capacities found in human nature and to challenge rigid and narrow beliefs about human potential. (Vardin, 2003, p.2-3)

Howard Gardner developed the theory of intelligences on step further.

Gardner suggests that there are seven ‘intelligences,’ not just the two -- logical-mathematical and linguistic -- addressed in traditional schooling. He suggests that schools should strive to identify and develop all intelligences in children, including those he calls bodily-kinesthetic, musical, spatial, interpersonal, and intrapersonal. Different children will have different arrays of ‘intelligences’ and schools need to teach to the particular child, using a variety of methods, and allow a variety of means of expression of such ‘intelligences.’ (Perrin, 1997, ¶ 40+)
It is in Howard Gardner’s Multiple Intelligence Theory that this research finds its framework. This researcher feels that people are much more than their math or reading scores on a standardized test and the arts can help develop all of the intelligences to help craft complete and whole people and therefore society.

The next section will discuss the potential that the arts can have on students with low reading scores.

**Benefits to Students with Low Reading or Verbal Scores on Standardized Testing**

Former Secretary of the United States Department of Education, Richard W. Riley stated, “The arts teach young people how to learn by giving them the first step: the desire to learn” (Riley, 1999, Introductory letter, ¶ 7). This desire to learn is evidenced in Wayne Brinda’s story. Brinda, a teacher in a suburban school in Pittsburgh, Pennsylvania, took a class of illiterate students and re-introduced them to literature through the incorporation of drama in the classroom. They read Madeleine L’Engle’s *A Wrinkle in Time* and then divided into groups. Each group designated students as designers, directors and actors. Brinda brought in professional designers, directors and actors to talk to the students about their visions and ideas. Finally, the students went to see a local production of the same story. “Through drama, students can discover what is meant by
being human. Drama also spurs imagination, insight, reflection, and self-knowledge” (Johns & Davis, 1990, ¶ 6).

This experience changed many of the students' perception of literature. “By combining reading with seeing, students found ways to immerse themselves in the actions, thoughts, and dialogue of characters, as well as the settings, sounds, and symbols in the literature” (Brinda, 2008a, p. 489). Even their test scores were vastly different than they had been in the past. “They all scored about 90% on the first try. This was the best they did for the year,” stated Ms. Roy, the Language Arts teacher, who administered the *A Wrinkle in Time* test (Brinda, 2008a, p. 493). For the first time, the students had begun to see relevance in the literature that they were reading. At the conclusion of the *A Wrinkle in Time* experiment, “Of the 16 students, 14 passed a unit test with excellent scores and found enjoyment with reading the assigned literature. Twelve students continued to read additional books and 10 students significantly improved their reading grades” (Brinda, 2008a, p. 495).

At Madison Street Academy of Visual and Performing Arts School in Ocala, Florida, Florida Comprehensive Assessment Test (FCAT) scores surpassed the state averages by some impressive percentages. For example, on the 2006-2007 FCAT, the state average of meeting High Standards in Reading was 63%. However, at Madison, it was 95%. The math and science scores showed vastly higher averages as well. Meeting High Standards in Math, state average was 61%, at Madison it was 92%. In Writing, the state average was
70%, but at Madison, it was 87%. The state average of 914 schools making reading gains was 60%, but at Madison, 83% made gains. Finally, when looking at their bottom quartile (the lowest 25% of readers) reading gains, Madison exceeded the state requirement of 50%, by having the bottom quartile of students make 81% reading gains that year. These statistics are reported with 100% of the students tested, another noteworthy accomplishment (Madison Street, 2007).

Success was not limited to Florida. In California, a study conducted by DuPont (1992), concluded that drama when integrated with children’s literature could remarkably improve remedial students reading scores on standardized testing.

The study finds that ‘…when children have been involved in the process of integrating creative drama with reading they are not only able to better comprehend what they’ve read and acted out, but they are also better able to comprehend what they have read but do not act out, such as the written scenarios they encounter on standardized tests’ (DuPont, p. 33).

In other words, students not only understand the specific story better, but also are able to transfer the skills that they have learned into new applications. This finding is significant in asserting that drama is not just about “play” but also about understanding, dissecting, and synthesizing the literature. These students were tested a year after the completion of this study, and the gains were still significant. It was not a one-time advantage.

Inclusion of the dramatic arts in a classroom yields long term results that materialize quickly for low readers as Heath and Roach noted in their study,
Imaginative Artistry: Learning in the Arts during the Nonschool Hours. In this it is stated, “The influences of participation in the arts on language show up in the dramatic increase in syntactic complexity, hypothetical reasoning, and questioning approaches taken up by young people within four-to-six weeks of their entry into the arts organization” (Heath & Roach, 1999, p. 37).

Shelby Wolf (1998) discovered that after a ten-week period in which a theater expert came to a remedial third and fourth grade class once a week, the students had very different outlooks on what it meant to read. There were seventeen of them in the class, and of the seventeen, eleven had already been held back at least once. The theater expert abandoned the traditional round robin style of reading that they had been doing and brought the literature alive through the infusion of theater activities. Discussions ensued for the first time in the young readers’ lives. “They became decision-makers and experts as they interpreted the words and did not simply turn the pages…. The children not only got inside the text but improved their accuracy and momentum” (Wolf, p. 407). At first, the students were reluctant to read and were “bored” (Wolf, p. 408). After their inclusion of theater, the students were interested in reading and felt that they were “good readers” (Wolf, p. 409).

However, perhaps one of the greatest affirmations that theater with reading does work comes from a student whose pseudonym is “A-Stara.” A-Stara stated after his/her experience with Brinda’s A Wrinkle in Time project, “Thank you for letting us know that it’s OK to read!” (Brinda, 2008a, p. 496). Reluctant
readers often feel that the literature in schools is simply thrust before them. They are to read it and take the test and nothing more. However, during the *A Wrinkle in Time* experience,

Teachers and students made discoveries by going beyond merely decoding words to decoding ideas. Students developed skills of building on prior knowledge either from reading the literature or recognizing universal truths in their own lives being expressed in the literature and in the performances (Brinda, 2008a, p. 489).

Many teachers feel that they “don’t have time for fun and games” (Haas, 2004, p. 5) when it comes to infusing dramatic activities into their curriculum, even though the results yield positive gains. Haas continued in her dissertation,

I understand these comments and can relate to many of them. Given the pressures of standardized accountability and high stakes tests, I understand why many high school teachers would be reluctant to use process drama in their classrooms. Everything they do needs to contribute to the bottom line. And unfortunately, in more and more of our schools, the bottom line is each school’s state report card and their average SAT/ACT scores. (2004)

However, studies point to the fact that theater not only enhances remedial reading, but also advanced reading on college preparatory tests such as the Scholastic Aptitude Test (SAT). There have been studies conducted that show the measure of arts classes in correlation to standardized test scores such as the SAT.

In comparison to their non-arts peers, students who took music history or appreciation course work scored an average of 63 points higher on the verbal section of the SAT and an average of 41 points higher on the math section. Similarly, students in drama, art appreciation, and studio scored significantly higher than their non-arts peers. (Stephens, 2006, p. 10)
Scores, particularly on the verbal portion of the SAT, show a definite relationship to continued enrollment in arts courses. Students who participate in arts courses tend to score on average; 55 points higher on the verbal portion of the SAT compared to their counterparts (College Board, 2007) “Ohio’s mean (SAT) scores were 536 in reading, 542 in math and 522 in writing in 2007, but students participating in the arts scored between 9 and 90 points higher in these areas than those who took no arts classes at all” (Klepach & Butz, 2008, ¶12).

The College Board compiled the following information based on students who did or did not participate in arts courses in high school. This information was collected during the Scholastic Aptitude Test:

![SAT Verbal Comparison](image)

**Figure 1:** SAT Verbal score comparison of performing arts students to non performing arts students, 2007.
In a study using 25,000 students who participated in the National Educational Longitudinal Study (NELS) of 1988, the relationship of eighth grade students and tenth grade students who participated in the arts and their achievement scores on standardized tests were statistically significant. Not only did students of the arts outscore their non-arts counterparts on standardized tests, but they also reported watching fewer hours of television a week, had higher grade point averages, performed more community service and reported less boredom in school. (Catterall, 1998) These studies with the NELS data were conducted in the upper quartile (the highest 25% of readers) of the socioeconomic status (SES), and with the lowest quartile of SES students as well. When the results were evaluated, the same results were discovered (Catterall). This study, did not however, show cause and effect as to whether the students who chose the arts were already more academically inclined or if they became more academically inclined due to their participation in the arts.

In another study using the NELS 1988 data, Caterall, Chapleau, and Iwanaga (1999) continued to disaggregate the data that concerned low SES students. These students were divided into two groups, those who had high involvement (defined as enrolled in a theater course, involved in a school play, or participation in drama club), and those who were not involved in theater.

The pattern in the data is fairly clear: the involved students outscored the noninvolved students…. And the difference favoring student involved in theatre grows steadily to where nearly 20 percent more are reading at high proficiency by grade 12; the advantage was only 9 percent back in grade 8. (p. 17)
Ethnically diverse students who were exposed to the arts provided evidence of “important growth in self-perception and behavior over the year. Students increasingly saw themselves as leaders and as important members of the class” (Horn, 1992, p. 39). This study helped students realize that the performing arts are a collaboration that needs everyone in order to succeed. In another study, the use of drama and art as pre-writing activities significantly increased the students writing scores (Moore & Caldwell, 1993). Along with writing, drama helped increase the oral communication scores and confidence levels of the students who participated in the activities (Kassab, 1984).

Podlozny’s (2000) study was a revelation in the connection of drama and increase in verbal abilities. In her study, she found that it is “very encouraging for educators who use drama in the classroom in expectations of achieving greater verbal development” (p. 57).

One of the themes that kept recurring in the literature was that of reading about a topic versus analyzing the literature and actually doing something with it. It is in the arts that a student must first visualize before he creates a product. The product is a very visible, tangible item that an audience can evaluate and even participate. No simple multiple-choice test or worksheet will suffice as an assessment of the skills being taught.

This is why the arts engage students and activate mental intelligences beyond the logical/analytical ones to which schools almost exclusively cater. The arts awaken an excitement about learning from experience and observation, which are in addition to traditional study, and are thus able to transform the learning environment of an entire school. (Oddleifson, 1990, p. 4)
Perrin’s (1997) article, “Education through the arts in secondary schools” stated, Students in the arts develop the capacity to integrate many aspects of the self and translate that integrated self into action. They learn by doing, truly active learning. It is impossible for a student to learn to play the piano by watching her teacher. … You can’t cheat in the arts. You can’t send someone else to play your recital. (¶ 12)

The successful infusion of drama in the classroom need not culminate into a large theatrical production. In an English class, for example, a teacher may want to suffuse a piece of classical literature with some types of drama activities to help the students connect with a text that they see no real life relevance to.

Personal connection through active methods is the bridge to developing skills of critical analysis. Once students have a personal stake in making meaning from a text, they will be more prepared to step out of the fictional word and engage in critical analysis. (Baxter, 1999)

Some of the ways that students can be active with a text is through creative writing, role playing, visualization, and physicality. Bringing literature to life through dramatic activities in the classroom can help students become immersed into the culture of the world in which the literature is based. “…theater brings texts to life in ways that stimulate connections, senses, emotions, responses, and thoughts…” (Brinda, 2008b, p.35)

In Haas’ dissertation, How Process Drama Helps Students Transact with Difficult Texts, she discovered that the infusion of process drama into her Othello unit in her English classroom, made the Shakespearean language more accessible as well as the text more memorable. Process drama is not about producing a show for the entire school, it is about breaking down units into
smaller, more tangible, and more active bits for students to grasp. For example, one of the exercises Haas used to help the students understand motivation is an exercise she entitled "hot seat/inner seat" where a student assumed the personality of a given character and answered questions from other students concerning their sub textual motivations and feelings (Haas, 2004). “Engaging in drama activities can help readers see, feel and interact with the intricacies of the text” (Haas, p.6).

Haas (2004) had very positive participation in this two-week unit. Students that were not usually engaged were not reluctant to try the activities. “Despite a handful of loath students, the vast majority showed eagerness to join in the drama activities….No one refused to get out of his/her seat” (Haas, p.31). This unit included much prediction and discussion between the students.

“Process drama assisted them in close reading by providing prediction activities that were visual, auditory and kinesthetic” (Haas, p. 60). This activity related back to Howard Gardner’s Theory of Multiple Intelligences in that it was focused on helping reading by using other things such as kinesthetic energy.

Benefits based on gender, ethnicity or socioeconomic status

In a 2007-2008 cohort group, the Florida Art Education Association discovered that “for students on ‘free and reduced lunch,’ an indicator of socioeconomic levels, the more music and arts classes taken, the higher the student achievement in all measures” (Florida Art Education Association, 2009, 26
Figure 2 below shows cumulative grade point averages of low socioeconomic students who are enrolled in a performing arts course from one to four years while in high school. Figure 3 shows grade point averages of low socioeconomic students who take the SAT.

**Low Socio-Economic Group: Cumulative GPA**

- **Figure 2**: Low Socioeconomic Group: Cumulative Grade Point Average from Florida Art Education Association, 2010
City Hearts Performing Arts: A Company for Children began in 1985 on the dream of Sherry Jason who saw a picture of a thirteen year old juvenile boy who was sentenced to prison. The picture gave her the idea to create an alternative to gangs and drugs by opening a dance studio in Little Tokyo in downtown Los Angeles. Reaching outside of the dance studio, City Hearts attended a lecture/demonstration in Los Angeles’ juvenile detention center. This facility housed 90 hard core gang members.

One teenager, big and menacing, decked out in his gang’s insignia and trappings, sneered derisively at John Pickett. ‘Can you make as much money dancing as I do dealing drugs?’ asked the teen. Pausing slightly, the dancer looked straight at him and answered, ‘I make enough money to pay the rent for my apartment, pay for my car, buy enough food to eat, and buy birthday gifts for my friends. And—I can dance.’ This stunned the
teenager, who said, ‘You mean I could dance instead of deal drugs?’ (Mehuron, 1990, p. 22-23)

The Chicago Arts Partnerships in Education (CAPE) was started to help low socioeconomic schools in the Chicago area benefit from an infusion of the arts.

The inspiring turnaround of this large and deeply troubled school district is one of the important education stories of this decade. Schools across Chicago…have been improving student performance. But, when compared to arts-poor schools in the same neighborhoods, the CAPE schools advanced even more quickly and now boast a significant gap in achievement along many dimensions. (Heath and Roach, 1999, p. viii)

To continue the thought of socioeconomic status and how it affects student’s level of achievement in the arts a study conducted by Burton, Horowitz and Abeles(1999) entitled, Learning In and Through the Arts: Curriculum Implications, found that the arts influenced both the low and the high SES level students. The study was quoted as saying, “the results of our study were more firmly tied to rich arts provision than to high economic status” (p. 41).

Using the arts with diverse students helps them understand and appreciate diversity more. “The performing arts teach students to celebrate the difference between themselves and others. They teach students how to better understand our pluralistic society. There are no color lines or socioeconomic boundaries in a performing arts program; rather, the keys to success are talent and hard work” (Wright, 1994, p. 41). One final thought about the positive aspects of the multicultural experiences that the arts offer, “These experiences
give us new references that enable us to become more receptive to unfamiliar
people, attitudes, and cultures” (McCarthy et al., 2004, p. 48).

In the book, *Third Space: When Learning Matters and Critical Evidence: How the Arts Benefit Student Achievement*, by Richard Deasy and Lauren Stevenson, 10 elementary, middle and high schools from across the country are studied due to their choice to become arts integrated schools. This three year study of schools which were primarily low socioeconomic and had a high minority student population. All ten of the schools experienced tremendous growth since making the arts the primary focus. Hand Middle School in Columbia, South Carolina, was one of the ten schools in this study, but the results were similar across the board. “Achievement was languishing below the 50th percentile on standardized test scores and the school was developing the reputation of having an uncontrollable school climate” (Deasy & Stevenson, 2005, p. 131). However,

Since making the decision to become an arts-based school, Hand has seen an eighty-five percent increase in the test scores of its African-American students. It has also been recognized by the South Carolina Department of Education in its Exemplary Writing Hall of Fame, by the U.S. Department of Education as a National Blue Ribbon School of Excellence, and in 2001 by *Time* magazine as a National School of the Year. (Deasy & Stevenson, 2005, p. 131)

Students in all ethnic groups and genders can get value out of participating in the dramatic arts. At the very least, they learn something about themselves and their own cultures. At the very most, they learn about other cultures.
Benefits to Attendance Rates

A middle school in Milwaukee, Wisconsin, did not want to wait until the students were old enough to consider dropping out before it took aggressive action to prevent the situation. Josephine Koebert, the Principal of Roosevelt Middle School, explained, “When I came here, I threw out the remedial courses, put in the arts classes, and we went from the worst middle school academically to one of the best in a single year” (U.S. Department of Education, 1994, p. 6). The study on the “Arts and Education Reform” where the Milwaukee school was quoted stated, “The percentage of students achieving competency in reading increased from 30% to 80% and in math from 10% to 60%. The attendance rate increased to 92% and the suspension rate dropped from 50% to lower than 10%” (Department of Education, p. 6).

In a study reported by the American Alliance for Theater and Education, it was discovered that not only do arts classes help prevent drop outs, but they encourage positive attendance as well. “Students considered to be at high risk for dropping out of high school cite drama and other arts classes as their motivations for staying in school. Students who participate in the arts are 3 times more likely to win an award for school attendance than those who do not.” (Klepach & Butz, 2008, ¶ 19)

Not only are arts students more likely to attend school regularly and not drop out, but also they are also “three times more likely to be elected to class office” (¶ 21).
Students sometimes use their arts classes as the motivation to attend school as witnessed by Cassandra, a student in the School for the Creative and Performing Arts at Chula Vista Middle School, San Diego, California:

To me, chorus is like the highlight of my day. This is like why I come to school. If we had to just do math and English, I'd still have to come to school, but I wouldn't want to come here. (Moran, 2007, ¶ 7)

Cassandra also stated, “Your heart is racing like so fast and everybody looks at you and, like, they smile at you and it makes you feel sooo good.” Cassandra continued, “When you feel all that attention, it’s like, 'Wow, I feel really important’” (Moran, ¶ 23).

A study conducted by the Florida Department of Education entitled, The Role of the Fine and Performing Arts in High School Dropout Prevention shed light on another positive aspect of the arts in our schools. In this study, 27 high schools from around the state of Florida were sampled. The administrators, the arts teachers, and the “at-risk” students were surveyed. The results were noteworthy. “Seventy percent of the administrators reported cases in which participation in the arts courses has influenced a student to stay in school. An even higher percentage (89.5%) of the arts teachers stated that they were aware of specific cases in which participation in arts course has influenced at-risk students to remain in school” (Florida Department of Education, 1990, p. 11). The students who stayed in school because of the arts were also observed to pay closer attention and stay on task in those same arts courses compared to
their other classes by “83.9% to 73.3%” of the time (Florida Department of Education, 1990, p.11).

The students and faculty were independently surveyed as to why they felt that the arts had such a pulling power to keep students in school. The answers from both groups were very similar. One of the reasons was stated as social interactions with a family concept. The students felt that their arts teacher “had become the ‘mother; or ‘father’ of the family”. One student was quoted as saying, “‘[My drama teacher] and I are closer than I am to my own mother. She is like or better than a best friend to me. She believes in what I can do as an actress’” (Florida Department of Education, 1990, p. 13). In the same study, “The arts teachers pointed out the importance of ‘knowing your students;’ and it seemed to the committee that this philosophy can be a powerful influence in these student’s lives” (Florida Department of Education, 1990, p. 15).

A study conducted in New York City by the Center for Arts Education shows that, “high school with the most access to- and support for- arts education have the city’s highest graduation rates” (Glass, 2010, p.10).

One of the factors in recognizing at-risk students is a lack of self-discipline. Many times, these students do not have the self-discipline, responsibility or self-confidence to see a goal (graduation) through. However, the students in the Glass study who found the arts as their motivation were able to overcome this lack of discipline. Many arts teachers tended to know their
students on a more personal level as well. The students felt that they were not just students in a classroom, but also valued and complete people.

It is interesting to note that while there were 70% of administrators who acknowledged the arts as a means for certain students to stay enrolled in school a full 100% of the schools surveyed said that their school had some type of dropout prevention program. However, only 44% of the schools surveyed utilized their arts programs as an aid in dropout prevention programs. When asked to “state which courses are the most effective in motivating the at-risk student to stay in school, of the 19 responses to this question…five mentioned ‘any course with an effective teacher’” (Florida Department of Education, 1990, p. 22).

Another impediment that at-risk students face is the inability to organize their life through structure and discipline. However, with arts infusion, many of these at-risk students are able to concentrate, plan, and follow through. “The nature of creating art certainly requires all the dimensions of a disciplined person: concentration, repetition, patience, and organization.” (Florida Department of Education, 1990, p. 14)

Perhaps one of the biggest warning signs of high school dropouts is a lack of motivation. For some students, they just do not seem to have any reason to attend school. However, participation in the arts can change that. “Administrators often report that when students are provided arts classes, delinquency and truancy rates fall” (Stephens, 2006, p.9)
In recent years there has been much discussion about the nature of "motivation" in students. The complexity of this issue has led some, sadly, to conclude that some children cannot respond to high standards, therefore lowering expectations and getting, predictably, low achievement. Low expectation leads to low achievement.

... Arts training, on the other hand, has never lost sight of the importance of high standards nor of what it take to achieve them. There is no quick and easy way to learn to play the violin. Arts' training has followed the same principles for millennia: respect your teacher, work hard, and always aim to be the best you can be. High achievement is the result of some talent, good coaching, and a great deal of hard work. Further, these standards must be internalized by the student if he wishes to progress. Standards then become an aspect of character, not something externally imposed. (Perrin, 1997, ¶ 31-32)

Figure 4 illustrates a 2007-2008 cohort studied by the Florida Art Education Association. The figure shows that “the more arts classes taken, the less likely a student is to drop out of the cohort group” (Florida Arts Education Association, 2009, p.2).

![Figure 4: Percentage of Students Failing to Graduate with Cohort from Florida Art Education Association, 2010](image-url)
Cathy Hess Wright was a director of dance in Montgomery, Alabama who was a ten-year veteran teacher of a magnet arts high school. Through her experience that is supported by a study from Barry, 1992, she concludes, “the successful potential of many students, particularly those to be considered at-risk, can be enhanced and aided by course offerings in the performing and visual arts” (Wright, 1994, p. 40).

In the study, *The Role of the Fine and Performing Arts in High School Dropout Prevention*, conducted in 1990 by the Florida Department of Education, it was discovered that “many at-risk students stated that an arts class was the only reason they decided to stay in school.” (p.15)

In *Gifts of the Muse: Reframing the debate About the Benefits of the Arts,* one of the findings was, “Improved attitudes and skills that promote the learning process itself, particularly the ability to learn how to learn, as well as increases in school attendance, self-discipline, self-efficacy, and interest in school” (McCarthy et al., 2004, p. 8).

Attendance rates appear to be positively affected with increased participation in the dramatic arts. Students have a desire to attend school when something interests them and captures their attention. For many, it is the arts that do this.
Other benefits of Dramatic Arts courses

In the literature reviewed, it was discovered that there are a plethora of benefits to low achieving students. In the composite study entitled, Champions of Change, included are seven independent research articles. In a section entitled, “Why the arts change the learning experience,” seven themes emerged from all of the research. They are:

1. The arts reach students who are not otherwise being reached.
2. The arts reach students in ways that they are not otherwise being reached.
3. The arts connect students to themselves and to each other.
4. The arts transform the environment for learning.
5. The arts provide learning opportunities for the adults in the lives of young people.
6. The arts provide new challenges for those students already considered successful.

de la Cruz (1995) conducted a study that found “that drama training can improve the social skills of students with learning disabilities is a significant finding for a society concerned about the escalation of violence in schools…” (p. 32). With this study, students with learning disabilities benefit from the hands-on nature of drama.

The arts have been proven to help students with low self esteem in high areas of poverty as well (Catterall, et al., 1999). Again, the hands-on nature of the curriculum as well as the product-oriented aspect tends to boost the esteem levels. In Los Angeles, California, Sherry Jason started the group, City Hearts Performing Arts: A Company for Children. Jason stated, “The whole goal of the
City Hearts is to inspire” (Mehuron, 1990, p. 22). She continued, “The applause from the audience is a significant factor, because usually it is the only time that they’ve been applauded for anything. You can see their faces change visibly as the applause affirms them” (Mehuron, p. 22). Jason started her dream with some borrowed money and now reaches over 600 students a week in one of Los Angeles’ most poverty stricken and crime ridden neighborhoods. After a trip to see the Alvin Ailey Dance Theater, a predominately African-American dance troupe, one student exclaimed, “…I don’t want to do drugs because they’ll hurt my body and then I can’t dance, and I don’t want to join a gang because then I’ll get killed and then I can’t dance.” (Mehuron, p. 23). These are strong statements about the influence of the performing arts in a neighborhood that knows drugs and gangs as an accepted way of life.

Participation in the arts is good for low achieving readers (Brinda, 2008a; DuPont, 1992), potential drop outs (U.S. Department of Education, 1994), college bound students (College Board, 2007), and low motivated students (Brinda, 2008a). Does the effect reach beyond this? The research indicates that yes, the arts do extend even further. Not only do the arts help low achieving and remedial students, students of poverty, and potential dropouts, but also the positive results encompass every type of student and all of society. In The Arts and Education Reform: Ideas for Schools and Communities, this comprehensive study included many statements about the positive influence of the arts. Some of the statements are shared below.
1. Experience shows that the arts have a special potential for engaging all students and that the traditional practice of the arts can improve teaching and learning in all areas.

2. The arts demand high standards, analytical thinking, creative thinking, practice, discipline, teamwork, and follow through—all qualities that employers say they need in workers.

3. Six percent of the national product is based on the arts each year.

4. The arts bring parents to the schools. Every educator knows that there is no better way to bring a child’s education alive for a parent than to exhibit a student’s products or showcase their performances.

5. The arts teach us about human nature and culture.

6. The arts encourage self-discipline and persistence.

7. The arts teach cultural diversity in an increasingly diverse nation.

8. The arts are basic to life. We deal with the arts every day in such things as advertising, architecture, fashion, and media. Students need to know how to understand and interpret the world around them. (U.S. Department of Education, 1994, p. 3-6)

Students whose first language is not English may also directly benefit from arts classes. The infusion of communicating with both body and voice helps English Language Learners (ELL) to transcend their language barrier. “It may be that participating in theatre arts education classes enables Latino students to improve their language and other communication skills (both verbal and nonverbal) thereby accelerating their ability to cross cultural boundaries more successfully” (Coleman, 2007, p. 30).

In Coleman’s dissertation she researched the effect of arts courses on Latino students and she stated,

Even though there is evidence that other extra-curricular activities such as athletics also reduce drop-out rates (Catterall, 1998; Flores-Gonzalez, 2002; Heath, 1999; McNeal, 1995) drama, both in the classroom or as an
extra-curricular activity, is the only activity that reduces drop-out rates and enhances reading achievement, communication skills, empathy, tolerance, pleasure, and social bonds.” (Coleman, 2007, p. 9)

“In addition to improved test scores, the teachers reported that their students were more confident, more comfortable taking risks, and more socially adept” (Kaiser, 2007, ¶13).

In a follow up interview with students about the impact of the arts on them and how their involvement could help with things later in life, one student commented,

Theater major Michael Cognata made the connection between this lesson and his life: ‘The things we learn in theater could be good for theater, but they’re also good for other areas of life.’ ‘Like what?’ Clark asked. ‘Like becoming a responsible man.’ (Rubenstein, 2006, ¶11-13)

Schools are constantly looking for the best way to teach character traits to the students. Inclusion in the arts may help develop the very character traits that we expect to instill in our young adults as they surge towards becoming adults who contribute to society.

Students who must become other characters must first have a solid grasp on their own identity in order to portray another one believably. “Drama helps students to interact with the author’s thoughts and their own to fully comprehend the text” (Haas, 2004).

Many people feel that encouraging students to pursue the arts is training them for a lifetime of disappointment, shattered dreams, and low paying jobs. However, partaking in the arts is proven to have many skills that future employers find desirable (Perrin, 1997). Many of the skills that are enhanced by
participation in the arts are the ability to handle peer pressure, a positive self-identity, ownership of work, ability to learn from failure, critical thinking, learning as an on-going process, developing high ideals, persistence, respect for hard work, working well with others, developing a strong sense of imagination, and great communicators (Heath & Roach, 1999; Perrin, 1997). “Furthermore, young people who have worked in the arts know how to strive for excellence and challenge themselves and their arts groups to improve, knowing that an audience or ‘customer’ will be the ultimate judges of their work” (Heath & Roach).

Multiculturalism is another positive by-product of engagement in the arts.

In a school for the arts, the identity of students is based on their arts discipline and their merit judged on how serious they are in the pursuit of their work. Students are dancers, musicians, artists, actors and writers, not rich kids, poor kids, nerds, jocks, Blacks, Asians or Latinos. (Perrin, 1997, ¶ 45)

In the National Educational Longitudinal Survey (NELS), 1988, one of the questions concerned racism. It asked, “Are students friendly with other racial groups?” A study conducted by Catterall, Chapeau, and Iwanaga (1999), found that students in theater were in agreement with this statement by 29% as compared to non theater students who reported 19% agreement. Continuing with this study, another question posed was, “Is it ok to make a racial remark?” Catterall, Chapeau and Iwanaga’s findings report:

About 40 percent more ‘no-drama’ students felt that making such a remark would be OK—about 12 percent of ‘high drama’ students thought the same, and about 17 percent of no drama students agreed. In this case, the advantage favoring high-theater students is statistically significant [p>.05].(p.19)
Perhaps the element that ties the low achievers to the high achievers is passion. Without it, no bit of theater exists. Anyone who has participated in the arts understands that a performance is only as good as its weakest member. Without passion, the weak remain weak.

Passion is a concept that is very real to young artists. They are deeply focused and intense about what they do and what they believe. They are sometimes skeptical, but seldom cynical. They believe that their lives and work matter and that caring deeply about your work is essential.” (Perrin, 1997, ¶ 16)

How does all of this information help students in the future? Here are some of the insights of a recent report by the National Center on Education and the Economy:

The Center commissioned leaders in business, education, and government to study our education system and make recommendations for reforms. In their publication titled “Tough Choices or Tough Times” they point out what is wrong with our current test-based educational policies. The report says ‘Too often, our testing system rewards students who will be good at routine work, while not providing opportunities for students to display creative and innovative thinking and analysis.’

The report predicts that in the current and future economy, ‘the best employers the world over will be looking for the most competent, most creative, and most innovative people on the face of the earth. Candidates will have to be comfortable with ideas and abstractions, good at both analysis and synthesis, creative and innovative, self-disciplined and well-organized, able to learn very quickly and work well as a member of a team.

So where do we turn? What resources can we provide to our teachers and our students to help them develop the critical thinking, creativity, discipline, and analytical skills they need to succeed in the global economy?

The answer is the arts. The National Center on Education and the Economy’s report further states, “the arts will be an indispensable foundation for everything that comes after for most members of the
workforce.' Learning through the arts reinforces crucial academic skills in reading, language arts, and math. But just as important, learning through the arts gives young people the skills they need to analyze and synthesize information, and to solve complex problems. (Kaiser, 2007, ¶ 4-7)

Are we so focused on math and English that we forget that art plays an important part in our culture and our future? Art teacher, Edie Mellon, stated, "You cut out the arts, you're cutting out creativity. My goodness, what is this world going to be then — if you don't know how to enjoy anything or be imaginative?" (Klepach & Butz, 2008, ¶ 30). From a school teacher to Michael Kaiser who, in an address to the Louisiana Congress, pleaded:

I urge you to draw on your state's rich artistic heritage as you continue to build your education system. If your goal is a vibrant, creative economy, there is no greater resource you can call upon than your young people; and arts education is the key to preparing those young people for the future. (Kaiser, 2007, ¶ 17)

While schools cannot solve all the problems that students face, there is positive feedback about what the arts can contribute to a young scholar's future.

Arts education, on the other hand, does solve problems. Years of research show that it's closely linked to almost everything that we as a nation say we want for our children and demand from our schools: academic achievement, social and emotional development, civic engagement, and equitable opportunity. (Smith, 2009, ¶ 1)

"Teaching arts every day in the core curriculum of elementary schools is the single most powerful tool presently available to educators to motivate students, enhance learning, and develop higher order thinking skills" (Oddleifson, 1990, p. 4). However, finding time for arts classes may be a bit challenging. With the structure of No Child Left Behind and the Florida law that mandates level 1 or 2 FCAT math and/or reading scores, students are mandatorily placed into
remedial reading and math classes, in addition to their already scheduled English and math courses. Therefore, a struggling academic student is now placed in more academic classes and his/her electives are taken away. “It’s a simple matter of limited time. Students who need double doses of math and reading to boost scores don’t have room in their schedules for electives” (Moran, 2007, ¶ 3).

"If they're worried about their test scores and want a way to get them higher, they need to give kids more arts, not less," says Tom Horne, Arizona’s state superintendent of public instruction. "There’s lots of evidence that kids immersed in the arts do better on their academic tests (Smith, 2009, ¶ 6).

However, with all of the evidence, it seems logical to make sure the arts are not cast by the wayside and are as integrated as a basic English or math course. In order to be fully integrated, students need administrators and school leaders who understand the benefits of including the arts in their curricula.

Teachers of other academic areas notice the students in the arts traits as stronger than students who do not participate in the arts. “…the high-arts group were stronger …in their ability to express their thoughts and ideas, exercise their imaginations, and take risks in learning. Moreover, they were also more cooperative and showed a greater willingness to display their learning…” (Burton, Horowitz & Abeles, 1999, p. 39). The self-confidence that the students feel as a member of the dramatic arts parleys into other academic areas. “They (teachers) confirmed that youngsters exposed to strong arts education acquire a sense of confidence in themselves that radiates beyond the studios and
performance spaces” (Burton, et al., p. 40). Not only do the arts students have a strong sense of self-confidence, but they also tend to have a solid rapport with all of their teachers, not just the arts-focused teachers. The following figure indicates the Self-Concept scores of arts students in the study by Burton, et al. The term “high arts” is defined as a student who has had a theater course, is a member of a drama club, or has participated in plays in high school, whereas “low arts” a student may have participated in only one of those areas, or is no longer involved in the dramatic arts (Burton, et al., p. 41).

Table 1: SDQ-I (Self-Concept, abbreviated S-C) Scores Compared to the Number of Years of In-School Arts

<table>
<thead>
<tr>
<th>SDQ-I Scores</th>
<th>High-Arts Group</th>
<th>Low-Arts Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Ability S-C</td>
<td>29.65%</td>
<td>20.08%</td>
</tr>
<tr>
<td>Physical Appearance S-C</td>
<td>27.40%</td>
<td>24.315</td>
</tr>
<tr>
<td>Peer Relations S-C</td>
<td>29.45%</td>
<td>23.26%</td>
</tr>
<tr>
<td>Parent Relations S-C</td>
<td>35.17%</td>
<td>24.31%</td>
</tr>
<tr>
<td>General Self Concept</td>
<td>36.81%</td>
<td>27.48%</td>
</tr>
<tr>
<td>Reading S-C</td>
<td>40.49%</td>
<td>20.08%</td>
</tr>
<tr>
<td>Mathematics S-C</td>
<td>29.86%</td>
<td>15.43%</td>
</tr>
<tr>
<td>General School S-C</td>
<td>35.70%</td>
<td>18.60%</td>
</tr>
<tr>
<td>Total Non-Academic S-C</td>
<td>33.33%</td>
<td>24.31%</td>
</tr>
<tr>
<td>Total Academic S-C</td>
<td>41.10%</td>
<td>17.76%</td>
</tr>
<tr>
<td>Total S-C</td>
<td>34.15%</td>
<td>17.97%</td>
</tr>
</tbody>
</table>

In the same study conducted by Burton, et al., (1999), they concluded that socioeconomic status did offer the positive influence that the arts have on students. Students from both low socioeconomic and high socioeconomic areas showed no statistically significant differences when evaluating the affirmative outcomes of students enrolled in the arts. Armed with this information, one must ask why the arts are not more prevalent in less affluent schools. In Mendels’ (2008) article, From Hip-Hop to Shakespeare, she commented about the importance of the arts and how they are disappearing from many schools, particularly the lower socioeconomic ones. “This is no mean feat at a time when arts education, a given in most affluent school districts, has seriously eroded in the public schools of many American cities” (p.1). “Big Thought”, a Dallas education group, has helped instigate a resurgence of the arts in the schools around Dallas, Texas, stated, “‘It’s about equity. The arts should be for every kid’” (Burton, et al., 1999, p.42).

Are schools meant to churn out students who only succeed on linear tests or are schools meant to foster a well rounded education and craft people who can succeed in any element of life post graduation?

The opportunity to define success in school not simply in terms of the traditional school measures (such as grades and test scores in traditional academic classes), but also in terms of rewarding school-based arts experiences, inclusion in arts-focused social groups, and successes in arts classes and activities provides an important way for students to develop self-confidence and a sense of being well integrated into the school environment. (McCarthy, et al., 2004, p. 23)
All of these successes are because students can develop and succeed in multiple intelligences, not just the two of linguistic and math that are typically tested in standardized tests. Howard Gardner's multiple intelligences suggest that "learning by doing" is a more effective way to absorb information (McCarthy et al., 2004, p. 26).

Indeed, Gardner argues that unlike the traditional scholastic approach, in which concepts are taught independently of practical problems, hands-on training in a specific art form provides an opportunity to involve students directly in the arts and use that practical experience to introduce concepts typically taught independently in the schools....Specifically, he asserts that arts education should be carried out over significant periods of time and should allow ample time for feedback, discussion, and reflection. (McCarthy et al., 2004, p. 26).

To further convince anyone of the need to infuse Gardner's multiple intelligences into our daily processes in education,

New imaging technology, positron emission tomography (PET), has discovered a general symbol processing area in the frontal region of the brain--the right cerebellum, the left frontal cortex and the 'gate' between the two, the anterior cingulate. It appears that arts performance stimulates the functioning of this region which in turn develops capabilities in reading, math and science. (Oddleifson, 1990, p. 5)

In this section, it was discovered that the arts can do much more than aid reading scores. The arts are a good equalizer for racial tensions, for productivity in/out of the arts classroom and for skills longed for in a productive employment arena, among other attributes. The next section will discuss the arts in a different light, under the affective, not cognitive, domain.
Dramatic Arts and the Affective Domain

The FCAT’s primary measure is to test the cognitive domain (knowledge based) as demonstrated by the list of items that a student must know in order to show progress or learning gains each time the test is administered. However, cognitive development is only a portion of educating a student. Both the affective (student attitudes and feelings) domain as well as the psychomotor domain (skills based) are commonly thought to be a part of the well rounded educational experience (Murray, 2006). Figure 5 illustrates the differences in the affective and the cognitive domains.

David Krathwohl’s affective domain taxonomy is possibly one of the better known affective taxonomies (Kirk, 2010, ¶1).

“The taxonomy is ordered according to the principle of internalization. Internalization refers to the process whereby a person’s affect toward an object passes from a general awareness level to a point where the affect...
is ‘internalized’ and consistently guides or controls the person’s behavior (Seels & Glasgow, 1990, p.28).

Krathwohl’s taxonomy involves 5 levels of awareness. These levels include: receiving, responding, valuing, organization, and value set. Figure 6 shows how the Krathwol taxonomy looks visually.

Figure 6: Krathwohl's affective domain. Image by Karen Kirk, SERC-Carleton College, 2010

The receiving level is characterized by listening to and responding. The responding level is characterized by compliance, following, and volunteerism. The valuing level is measured by support, debate, and subsidizing. The organizational level is recognized by discussion, theorize, formulation and balance. Finally, the value set level is noticed by revision, resistance and resolution (Kirk, 2010).

Unfortunately, the Western culture relies primarily on the cognitive domain to assess learning (Lawrence, 2008). However, cognition in isolation means to exclude the feelings that students feel as they learn, process and grow. “To suppress our emotions is not only unnatural; it prevents us from expressing our
full humanness‖ (Lawrence, p.66). Lawrence feels that language is “a one-way communication” (p.67) and can therefore be “manipulated” (p. 67). He continues, “Once we put a label on something, we think we understand it and stop looking any further” (p. 67). However, including the affective domain is a more “holistic way to deepen understanding of self, others, and the world around us” (Lawrence, p. 67).

Many teachers try to help students “learn from experience.” However, “to learn from experience requires one to be fully in the experience: mind, body, heart, and soul” (Lawrence, 2008, p.69). Inclusion of the arts in schools can help develop the affective domain in students in order to fully live the experiences offered them in the classroom. However, tests such as the FCAT ignore this part of a student’s education entirely, so this part of a student’s education is effortlessly cast aside as non-important.

What draws people to the arts is not the hope that the experience will make them smarter or more self-disciplined. Instead, it is the expectation that encountering a work of art can be a rewarding experience, one that offers them pleasure and emotional stimulation and meaning. (McCarthy et al., 2004, p. 37)

The arts can help “heal from oppression through the sharing of stories and the exploration of affective and embodied knowing” (Lawrence, 2008, p.69). One such example is the full length play entitled, The Laramie Project.

In 1998, Matthew Shepard, a twenty-one-year-old gay student registered at the University of Wyoming, was tied to a cattle fence, beaten about the head, robbed, and left to die on a bitterly cold night in October. Eighteen hours later, he was accidentally discovered by a biker, who had trouble
believing that the figure he saw attached to the fence was human. Police and ambulances were dispatched, and Shepard was taken to a local hospital; all to no avail. Shepard was beyond recovery. He never regained consciousness and died several days later due to his head injuries. Two local young men were charged with the crime.

The play is based on more than 400 interviews with about 100 Laramie residents, as well as journal entries from the members of Tectonic Theater Project and Kaufman, as they reflect on their own reactions to the crime and to the interviews they carried out. Structured as a documentary, it attempts to reenact the events that occurred on that fateful night. (The Laramie Project: Introduction, 2006)

This play is one of the most censured, protested and canceled plays in high schools and community theaters across America (Controversy: Embrace It!, 2009, ¶2-3). Books such as The Grapes of Wrath, Uncle Tom’s Cabin, Huck Finn, Of Mice and Men, Catcher in the Rye and more continue to make the highly censored list because of the emotional connections that people have about them or the topics they cover (McCarthy et al., 2004, p.51; Controversy: Embrace It!, 2009, ¶8-10).

“Watching a play or a film or listening to a musical composition may enrage us or move us to tears. We may not even initially understand where the strong emotion is coming from. These emotional reactions can be viewed as opportunities to go deeper. As we reflect on the nature of our response to the film or song, we can gain greater insight into ourselves and the world” (Lawrence, 2008, p.70).

Would The Laramie Project create the kind of response it does- even 12 years after the inciting event took place- if the affective domain were not employed? In fact, the cognitive and affective domains are hard to separate. “Our bodily sensations clue us into our cognitive state: we feel ‘butterflies’ in our
stomach and recognize that as anxiety. Our heart races and we register it as fear” (Lawrence, 2008, p. 70).

“Learning is a holistic process that involves cognitive, affective, somatic, and spiritual dimensions. The arts naturally engage us in all of these learning domains” (Lawrence, 2008, p. 75). The FCAT does not involve the affective, the somatic (also called the psychomotor), or the spiritual domains at all. With this realization, the state test in Florida that students must pass to proceed to fourth grade and to eventually graduate high school only tests one-fourth of the domains that are credited for creating comprehensive and complete people.

Summary

Chapter 2 contained information about the positive benefits of dramatic arts courses such as increased test scores in the entire student body as well as SES students, increase student self confidence, increase in attendance, increase in self esteem, and increase in rapport to their teachers as well as across racial lines. Chapter 3 will discuss the methodology to pursue the intended research.
CHAPTER 3: METHODOLOGY

Introduction

The purpose of this chapter was to describe the methods and procedure used in the collection and analysis of data for this study. The sections of this chapter were organized as follows: (1) statement of the problem, (2) research questions and hypotheses, and (3) methodology.

Statement of the Problem

When No Child Left Behind was enacted, the arts were designated as a part of the required “core” courses that every high school students should have prior to graduation. However, these courses were not required, but recommended. Florida State Law 1008.25 mandated that any child who scored a level one or two on the FCAT reading portion must have remediation in order to achieve the minimum acceptable score of a three. With this law in place, many arts courses found themselves pushed aside. The arts were designated nationally as “core” and were being cast away statewide to accommodate a specialized reading remediation track, when in fact, the arts courses would accomplish a strengthened reading score and offer benefits such as increased attendance, desire to stay in school, increased time management and self esteem, to name only a few. To date, there was little research to show the effects of a dramatic arts course on a remedial reader’s scores on a state
mandated test. This study was designed to begin the process of looking at the benefits of high school dramatic arts courses in conjunction with elevating reading scores in remedial readers.

Research Questions and Hypotheses

This study is guided by the following research questions:

1. **What relationship, if any, exists in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?**

   \[ H_0: \] There is a relationship in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

2. **What relationship, if any, exists in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?**
H₀: There is a relationship in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

3. What relationship, if any, exists in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

4. What relationship, if any, exists in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in
dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

5. What influence, if any, does participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes?

H₀: There is an influence in participation in dramatic arts courses on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes.

Methodology

All of the information needed was contained at the district level. Data were collected from Orange County Public Schools and Seminole County Public Schools. FCAT data from the 2008-2009 school year were used. Information services staff were contacted at each district and the files were provided directly to the researcher. No student names, student identifiers, teacher identifiers, or school names were attached to the data files to assure anonymity. Further, since
the FCAT was a state-wide standardized test, neither student nor parental consent forms were needed.

The Statistical Package for Social Sciences (SPSS) Graduate Package (15.0) was used to analyze the data. No school sites, teachers, nor students were contacted individually. The variables included grade level, FCAT achievement level, FCAT developmental scale score, ethnicity, gender, and socioeconomic status as well as days absent, and indicators for whether the students were enrolled in a dramatic arts course.

Only records of students who were in Grades 9 or 10 in the 2008-09 academic year were included. More specifically, students needed to have FCAT Reading scores on record for Spring 2008 and Spring 2009 and must have scored in Level 1 or Level 2 in Spring 2008. This was the qualification students needed to meet in order to be placed in reading remediation for the 2008-09 academic year. A total of 15,895 students were included from these two school districts. The Orange County School District, the larger of the two school districts, contributed 13,045 students to the dataset (82.1%), while the Seminole County School District, the smaller school district, contributed 2,850 (17.9%) of the population.

Summary statistics regarding the numbers of students from each district, percentages of students in each grade, as well as percentages enrolled in dramatic arts courses were provided by each of the consenting school districts.
Research Question 1 was addressed by a chi-square test for independence, since both participation in HS dramatic arts (yes/no) and increase in FCAT reading score (no learning or level gain; learning gain within the same level; whole level gain – 1 to 2+ or 2 to 3+) are entirely categorical in nature. The categorization by learning gain type is the best way to get around the fact that some students start on the extremely low end of level 1 and others may be on the upper end of level 2. Separate chi-square tests were run for 9th and 10th grade students to determine if the benefits affected each grade differently. The Chi-square test for independence is the best choice because it is designed to test two categorical variables from the same population. Chi-square was used to determine if there is a significant association between the variables.

Research Question 2 was addressed with two separate chi-square tests of independence, one for females and one for males. The tests were run on the two sub-populations within the full population as addressed in Research Question 1.

Research Question 3 was addressed using two separate chi-square tests of independence, one for economically non-disadvantaged students and one for economically disadvantaged students. This status was determined by records noting whether the student was receiving free or reduced lunch. The tests were run on the two sub-populations within the full population as addressed in Research Question 1.

Research Question 4 was addressed by three separate chi-square tests of independence was run to address this question, one for each ethnic group of
students. The tests were run on the three sub-populations within the full population as addressed in Research Question 1.

Research Question 5 was intended to be addressed with an independent samples t-test. The number of all-day absences generated by each student in the 2008-09 academic year was to serve as the dependent variable and the dichotomous variable of dramatic arts participation was to serve as the independent variable.

When utilizing an analytical method such as the independent samples t-test, which largely depends upon means and standard deviations, it is more reasonable for comparison purposes to have two groups that are not vastly unequal in size. Therefore, a random sample was taken from the observations of students who were not in dramatic arts to create an equally-sized sample of 634 students. This action was not essential for the chi-square tests utilized in the previous questions due to its nature as a proportion-based test.

A major requirement of the independent t-test is the presence of a normally distributed dependent variable. In order to test for this assumption, the data were examined graphically for shape and descriptively for skewness and kurtosis. Ideally, both of these values should fall within the range of -2 and 2 for each group’s sample. For the non-dramatic arts group, these values were 2.13 and 6.19, respectively. Likewise, for the dramatic arts group, these values were 2.23 and 7.99, respectively. Further graphical examination of the data indicated a prominent right-hand skew for each group. Therefore, the researcher determined
it was more appropriate to use the Mann-Whitney Test to compare the locations of both groups as a precaution against violations of assumptions.

**Summary**

To close Chapter 3, Chi-Square tests were run on research questions 1-4 and a Mann-Whitney test was run on research question 5. The Chi-Square test is for two categorical variables from the same population. For research question 5, the Mann-Whitney test was used to compare the locations of both groups as a precaution against violations of assumptions.
CHAPTER 4: ANALYSIS OF DATA

Introduction

The purpose of this study was to explore the possible benefits of students who have low scores in reading and verbal portions of standardized tests and who are not enrolled in any type of dramatic arts course compared to students with low scores in reading and verbal portions of standardized tests who are enrolled in dramatic arts course.

The purpose was also to discover the possible benefits of the performing arts classes that extend past the performing arts doors. These benefits would include, but not be limited to, improved attendance, improved discipline, improved self esteem, and improved racial relationships.

The data sources for this study came from both Orange and Seminole County School districts in Florida. The population of interest consisted of students who were in 9th or 10th grade in the 2008-09 school year. For each individual student meeting this criterion, the following information was needed: grade level in 2008-09; gender; ethnicity; SES/FRL status; total number of all-day absences for 2008-09; Spring 2009 Reading FCAT data: Achievement Level, Scale Score, and DSS; Spring 2008 Reading FCAT data: Achievement level, Scale Score, and DSS (This prior year information may not be available for all students, which was understood. It was necessary for the purpose of determining the presence of learning gains); and finally, an indicator of whether or not a
student was enrolled in a dramatic arts course in 2008-09. Student names were not required.

Dramatic arts courses were listed by the Florida Department of Education and were identified as: Introduction to Drama (0400300); Drama I or II (0400310 or 0400320); Acting I or II (0400370 or 0400380); Comprehensive Theater I or II (0400450 or 0400460); Musical Theater I or II (1300400 or 1300410); American Musical Theater I or II (1300390 or 1300391); Stagecraft I or II (0400410 or 0400420); and Theater Technology (0400600).

**Definition of Variables**

This section contains an explanation for the independent and the dependent variable for each research question.

**Research Question 1**

What relationship, if any, exists in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment? The independent variable was whether or not a student is enrolled in a dramatic arts course and the dependent variable was the performance on the FCAT reading assessment.
Research Question 2

What relationship, if any, exists in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment? The independent variable was the gender of the students that took a dramatic arts course and the dependent variable was the performance on the FCAT reading assessment.

Research Question 3

What relationship, if any, exists in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment? The independent variable was whether or not the student qualified for free or reduced lunch and was enrolled in a dramatic arts course and the dependent variable was the performance on the FCAT reading assessment.

Research Question 4

What relationship, if any, exists in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading
classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment? The independent variable was the ethnicity of the student enrolled in a dramatic arts course and the dependent variable was the performance on the FCAT reading assessment.

Research Question 5

What influence, if any, does participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes? The independent variable was the attendance rate of the students who took a dramatic arts course and the dependent variable was the performance on the FCAT reading assessment.

Data Analysis

Research Question 1 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment
Even with the specific sub-population of remedial students (Level 1 and 2 readers), using a single point-in-time measure of FCAT scale score or achievement level would not address the concept of growth in performance. Within this population, some students began as extremely low-level readers, while others are nearly proficient and simply need some extra assistance. Therefore, the measure used to address FCAT Reading performance was the learning gain. This measure indicates whether or not a student achieved at least one year’s worth of growth in knowledge through a combination of movement in achievement levels (e.g., level 1 to level 2) or sufficient movement in developmental scale score within the same level as defined by the Florida Department of Education for specific grade levels. For the grades of interest, grade 9 and grade 10, students who stayed within level 1 or level 2, were enrolled in consecutive grades (e.g. grade 8 to grade 9, or grade 9 to grade 10), and show a gain of over 77 developmental scale points demonstrated enough growth in reading skill to qualify for a learning gain. The other benefit of examining learning gains was the ability to simultaneously assess students in different grades, as the learning gain was always a dichotomous variable representing gain or no gain.

This question was addressed by a chi-square test for independence, which measures the relationship between two dichotomous or categorical variables. For this research question, one variable was the student’s status in dramatic arts (enrolled or not enrolled). The other variable was FCAT Reading
achievement, as measured by learning gains (gain or no gain). This population was unique, as only 634 students (4%) were enrolled in dramatic arts courses. However, when using a method such as chi-square, such unbalanced populations do not present inferential issues since the test is based on proportions and expected cell counts relative to the sizes of these sub-populations.

Results for this chi-square analysis are located in Table 2. The test, \( \chi^2(1) = 1.07, p = .30, \Phi = .01 \), indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course. The phi value of .01 suggests additionally that there was no practical relationship between these two variables. A phi value of .10 would be a low relationship, while a value of .30 would be medium relationship. Therefore, the phi value of .01 is extremely low.
Table 2: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, All Students (N = 15,895)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
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<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>9,025</td>
<td>388</td>
</tr>
<tr>
<td>% of Column</td>
<td>59.1</td>
<td>61.2</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6,236</td>
<td>246</td>
</tr>
<tr>
<td>% of Column</td>
<td>40.9</td>
<td>38.8</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.2</td>
<td>-0.8</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 1.07$, df = 1, $p = .30$, $\Phi = .01$.

Also note that the percentages of the columns are provided for reference as to which group, those enrolled in dramatic arts or those not enrolled in dramatic arts, had a higher or lower percentage of students making gains. In this case, the group not enrolled in dramatic arts had slightly higher percentages making gains, but once again, there was no significant relationship so this is a purely descriptive observation.

To conclude, students registered in a dramatic arts course did not show enough learning gains to show evidence that a dramatic arts course will help a reading score improve on the FCAT.
Research Question 2 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

Two separate chi-square tests of independence were run to address this question, one for females and one for males. The tests were run on the two sub-populations within the full population as addressed in Research Question 1.

Results for the chi-square analysis for females are located in Table 3. The test, $\chi^2(1) = 3.38, \ p = .07, \ \Phi = .02$, indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among female students. The phi value of .02 suggests additionally that there was no practical relationship between these two variables.
Table 3: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Female Students (N = 7,643)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4,273</td>
<td>289</td>
</tr>
<tr>
<td>% of Column</td>
<td>59.4</td>
<td>63.8</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,917</td>
<td>164</td>
</tr>
<tr>
<td>% of Column</td>
<td>40.6</td>
<td>36.2</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.3</td>
<td>-1.4</td>
</tr>
</tbody>
</table>

Note. $\chi^2 = 3.38, df = 1, p = .07, \Phi = .02.$

Although the test did not meet the .05 qualification for significance, the $p$-value of .07 approached statistical significance. However, the percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 40.6% of the non-dramatic arts females made learning gains, while 36.2% of the dramatic arts females made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend was still apparent in this case.

Results for the chi-square analysis for males are located in Table 4. The test, $\chi^2(1) = 1.28, p = .26, \Phi = .01$, indicated that there was no significant
relationship between learning gains and enrollment in a dramatic arts course among male students. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.

Table 4: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Male Students (N = 8,252)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4,752</td>
<td>99</td>
</tr>
<tr>
<td>% of Column</td>
<td>58.9</td>
<td>54.7</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.1</td>
<td>-0.7</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,319</td>
<td>82</td>
</tr>
<tr>
<td>% of Column</td>
<td>41.1</td>
<td>45.3</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note. \(\chi^2 = 1.28, df = 1, p = .26, \Phi = .01\).

Although the test did not meet the .05 qualification for significance, the percentages making gains suggest a trend in the direction of what was anticipated, unlike in the case of the female students. A total of 41.1% of the non-dramatic arts males made learning gains, while 45.3% of the dramatic arts males made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.
To conclude, when students were disaggregated into gender, neither gender independently showed enough learning gains to illustrate evidence that a dramatic arts course will help a reading score improve on the FCAT.

Research Question 3 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

Two separate chi-square tests of independence were run to address this question, one for economically non-disadvantaged students and one for economically disadvantaged students. This status was determined by records noting whether the student was receiving free or reduced lunch. The tests were run on the two sub-populations within the full population as addressed in Research Question 1.

Results for the chi-square analysis for economically non-disadvantaged students are located in Table 5. The test, $\chi^2(1) = 0.21$, $p = .65$, $\Phi = .01$, indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among these students not receiving free or reduced
lunch. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.

**Table 5: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Economically Non-Disadvantaged Students (N = 8,140)**

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4,522</td>
<td>175</td>
</tr>
<tr>
<td>% of Column</td>
<td>57.8</td>
<td>56.5</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.1</td>
<td>-0.3</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,308</td>
<td>135</td>
</tr>
<tr>
<td>% of Column</td>
<td>42.2</td>
<td>43.5</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>—</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*Note. $\chi^2 = 0.21, df = 1, p = .65, \Phi = .01.*

A purely descriptive examination of the percentages of students making learning gains between those enrolled and not enrolled in dramatics arts courses further suggest the lack of any relationship between these two variables A total of 42.2% of the non-dramatic arts students made learning gains, while 43.5% of the dramatic arts students made gains. The dramatic arts students had a very slightly higher percentage making learning gains, but this discrepancy was not nearly enough to suggest significant differences.

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Results for the chi-square analysis for economically disadvantaged students are located in Table 6. The test, $\chi^2(1) = 3.45$, $p = .06$, $\Phi = .02$, indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among these students receiving free or reduced lunch. The phi value of .02 suggests additionally that there was no practical relationship between these two variables.

Table 6: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Economically Disadvantaged Students (N = 7,755)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4,503</td>
<td>213</td>
</tr>
<tr>
<td>% of Column</td>
<td>60.6</td>
<td>65.7</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,928</td>
<td>111</td>
</tr>
<tr>
<td>% of Column</td>
<td>39.4</td>
<td>34.3</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.3</td>
<td>-1.4</td>
</tr>
</tbody>
</table>

*Note. $\chi^2 = 3.45$, df = 1, $p = .06$, $\Phi = .02$.

Although the test did not meet the .05 qualification for significance, the $p$-value of .06 approached statistical significance. However, the percentages making gains suggest a trend in the direction opposite to what was anticipated. A
total of 39.4% of the non-dramatic arts students made learning gains, while 34.3% of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

To conclude, neither group of students who were economically advantaged or disadvantaged had enough learning gains to show evidence that a dramatic arts course will help a reading score improve on the FCAT.

Research Question 4 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

Three separate chi-square tests of independence were run to address this question, one for each ethnic group of students. The tests were run on the three sub-populations within the full population as addressed in Research Question 1.

Table 7 is a composite picture of the ethnic groups. It showed the results for Black/Hispanic/White students, while tables 8-10 show each ethnicity separately.
Table 7: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Black (N=5,447), Hispanic (N=5,541) and White (N=4003) Students

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,390</td>
<td>160</td>
</tr>
<tr>
<td>% of Column</td>
<td>65.0</td>
<td>70.2</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1,829</td>
<td>68</td>
</tr>
<tr>
<td>% of Column</td>
<td>35.0</td>
<td>29.8</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,130</td>
<td>127</td>
</tr>
<tr>
<td>% of Column</td>
<td>58.7</td>
<td>61.4</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,204</td>
<td>80</td>
</tr>
<tr>
<td>% of Column</td>
<td>41.3</td>
<td>38.6</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,053</td>
<td>80</td>
</tr>
</tbody>
</table>

75
<table>
<thead>
<tr>
<th>% of Column</th>
<th>53.4</th>
<th>50.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain Count</td>
<td>1,791</td>
<td>79</td>
</tr>
<tr>
<td>% of Column</td>
<td>46.6</td>
<td>49.7</td>
</tr>
</tbody>
</table>

Note. Black = \( \chi^2 = 2.62, df = 1, p = .11, \Phi = .02 \); Hispanic = \( \chi^2 = 0.59, df = 1, p = .44, \Phi = .01 \); White = \( \chi^2 = 0.59, df = 1, p = .44, \Phi = .01 \).

Table 7 yields different results than intended. First, it does not show a statistical significance for any of the sub groups based on ethnicity. Second, and perhaps more telling, the amount of remediated readers that will again be forced into reading remediation the following year ranges from 50-75% of the students.

Results for the chi-square analysis for Black students are located in Table 8. The test, \( \chi^2(1) = 2.62, p = .11, \Phi = .02 \), indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among Black students. The phi value of .02 suggests additionally that there was no practical relationship between these two variables.
Table 8: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Black Students (N = 5,447)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,390</td>
<td>160</td>
</tr>
<tr>
<td>% of Column</td>
<td>65.0</td>
<td>70.2</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1,829</td>
<td>68</td>
</tr>
<tr>
<td>% of Column</td>
<td>35.0</td>
<td>29.8</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.3</td>
<td>-1.3</td>
</tr>
</tbody>
</table>

Note. $\chi^2 = 2.62$, $df = 1$, $p = .11$, $\Phi = .02$.

The percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 35.0% of the non-dramatic arts students made learning gains, while 29.8% of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend was still apparent in this case.

Results for the chi-square analysis for Hispanic students are located in Table 9. The test, $\chi^2(1) = 0.59$, $p = .44$, $\Phi = .01$, indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among Hispanic students. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.
Table 9: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, Hispanic Students (N = 5,541)

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3,130</td>
<td>127</td>
</tr>
<tr>
<td>% of Column</td>
<td>58.7</td>
<td>61.4</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>—</td>
<td>0.5</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,204</td>
<td>80</td>
</tr>
<tr>
<td>% of Column</td>
<td>41.3</td>
<td>38.6</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.1</td>
<td>-0.6</td>
</tr>
</tbody>
</table>

Note. $\chi^2 = 0.59$, $df = 1$, $p = .44$, $\Phi = .01$.  

The percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 41.3% of the non-dramatic arts students made learning gains, while 38.6% of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

Results for the chi-square analysis for White students are located in Table 10. The test, $\chi^2(1) = 0.59$, $p = .44$, $\Phi = .01$, indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course.
among White students. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.

The percentages making gains suggest a trend in the anticipated direction. A total of 46.6% of the non-dramatic arts students made learning gains, while 49.7% of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

**Table 10: Counts and Chi-Square Analysis for Dramatic Arts Status and FCAT Performance, White Students (N = 4,003)**

<table>
<thead>
<tr>
<th>Learning Gain Status</th>
<th>No Dramatic Arts</th>
<th>Dramatic Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2,053</td>
<td>80</td>
</tr>
<tr>
<td>% of Column</td>
<td>53.4</td>
<td>50.3</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>0.1</td>
<td>-0.5</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1,791</td>
<td>79</td>
</tr>
<tr>
<td>% of Column</td>
<td>46.6</td>
<td>49.7</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*Note.* $\chi^2 = 0.59$, $df = 1$, $p = .44$, $\Phi = .01$. 
To conclude, separating students into separate ethnic groups did not prove that enough learning gains were made to show evidence that a dramatic arts course will help a reading score improve on the FCAT.

Research Question 5 and Hypothesis

What influence, if any, does participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes?

H₀: There is an influence in participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes.

This question was intended to be addressed with an independent samples t-test. The number of all-day absences generated by each student in the 2008-09 academic year was to serve as the dependent variable and the dichotomous variable of dramatic arts participation was to serve as the independent variable. When utilizing an analytical method such as the independent samples t-test, which largely depends upon means and standard deviations, it is more reasonable for comparison purposes to have two groups that are not vastly unequal in size. Therefore, a simple random sample was taken from the observations of students who were not in dramatic arts to create an equally-sized sample of 634 students. This action was not essential for the chi-square tests utilized in the previous questions due to its nature as a proportion-based test.

A major requirement of the independent t-test is the presence of a normally distributed dependent variable. In order to test for this assumption, the
data were examined graphically for shape and descriptively for skewness and kurtosis. Ideally, both of these values should fall within the range of -2 and 2 for each group’s sample. For the non-dramatic arts group, these values were 2.13 and 6.19, respectively. Likewise, for the dramatic arts group, these values were 2.23 and 7.99, respectively. Further graphical examination of the data indicated a prominent right-hand skew for each group. Therefore, the researcher determined it was more appropriate to use the Mann-Whitney Test to compare the locations of both groups as a precaution against violations of assumptions.

The Mann-Whitney Test, $Z = -0.86$, $p = .39$, indicated that there were no significant differences in the mean ranks of the attendance variable between the non-dramatic arts ($M_r = 625.70$) and dramatic arts ($M_r = 643.30$) groups. The slightly lower mean rank for the non-dramatic arts group indicates that these students had slightly lower numbers of absences than those in the dramatic arts group.

A descriptive examination of means suggest the same results of no differences between groups. The mean number of absences for the non-dramatic arts group was 8.92, with a standard deviation of 10.10. The 95% confidence interval ranged from 8.13 to 9.71. Likewise, the mean number of absences for the dramatic arts group was 9.00, with a standard deviation of 9.66. The 95% confidence interval ranged from 8.25 to 9.75, a nearly identical span as the non-dramatic arts group.
Summary

To conclude, no statistical significance was found in any of the research questions, however, some positive trends were discovered. These trends include White students outscoring their Black and Hispanic peers, Non-disadvantaged students over economically disadvantaged students and males over females making reading gains. Additionally, the statistics did reveal that between 50-75% of the remediated readers did not make learning gains in 2008-2009 and would again be classified as remedial readers in 2009-2010.
CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to explore the possible benefits of students who have low scores in reading and verbal portions of standardized tests and who were not enrolled in any type of dramatic arts course compared to students with low scores in reading and verbal portions of standardized tests who were enrolled in dramatic arts course. The questions were divided into students who took dramatic arts courses or not, by race, by gender, and by attendance rates.

The purpose was also to discover the possible benefits of the performing arts classes that extend past the dramatic arts doors.

Although the data did not show statistical significance it did lean towards positive involvement in the arts for remedial readers.

Summary and Discussion of Findings

Research Question 1 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade students enrolled in remedial reading classes, who participate in dramatic arts courses and those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment
Results for this chi-square analysis indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course, therefore the hypothesis was rejected. The phi value of .01 suggests additionally that there was no practical relationship between these two variables. Part of this result may be based on the sample size of 634 students from the 15,895 that were in the total data set. The sample size of students enrolled in both a remedial reading class and a dramatic arts course simultaneously only represents 4% of the total sample size of remedial readers.

The FCAT was designed to test only mathematical and reading skills. It was also plausible that because FCAT only tests definitively measured math and reading, it does not test the types of positive attributes that participation in a dramatic arts course offer such as, handling peer pressure, respect for hard work, critical thinking (Perrin, 1997), or self expression (Burton, et al., 1999).

**Research Question 2 and Hypothesis**

What relationship, if any, exists in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade male and female students enrolled in remedial reading classes, who participate in dramatic arts courses and those male and female students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.
Results for the chi-square analysis for females indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among female students and therefore the hypothesis was rejected. The phi value of .02 suggests additionally that there was no practical relationship between these two variables.

Although the test did not meet the .05 qualification for significance, the \( p \)-value of .07 approached statistical significance. However, the percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 40.6\% (2,917) of the non-dramatic arts females made learning gains, while 36.2\% (164) of the dramatic arts females made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

Results for the chi-square analysis for males indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among male students. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.

Although the test did not meet the .05 qualification for significance, the percentages making gains suggest a trend in the direction of what was anticipated, unlike in the case of the female students. A total of 41.1\% (3,319) of the non-dramatic arts males made learning gains, while 45.3\% (82) of the dramatic arts males made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.
The FCAT in the 2008-2009 school year was administered in March. Students who took the FCAT may have only been enrolled in a dramatic arts course for three of the four 9 week grading periods. Students, therefore, would not have completed an entire year in the course. Completion and longevity may be at the core for the positive trend that began to emerge from the data but stopped short as far as a statistical significance. As the statistics from the College Board show, the longer a student is enrolled in a performing arts course, the better the results on the Scholastic Aptitude Test (College Board, 2007).

Research Question 3 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade students based on socioeconomic status enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment.

Results for the chi-square analysis for economically non-disadvantaged students indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among these students not receiving free or reduced lunch and therefore the hypothesis is rejected. The phi
value of .01 suggests additionally that there was no practical relationship between these two variables.

A purely descriptive examination of the percentages of students making learning gains between those enrolled and not enrolled in dramatic arts courses further suggest the lack of any relationship between these two variables. A total of 42.2% (3,308) of the non-dramatic arts students made learning gains, while 43.5% (135) of the dramatic arts students made gains. The dramatic arts students had a slightly higher percentage making learning gains, but this discrepancy was not nearly enough to suggest significant differences.

Results for the chi-square analysis for economically disadvantaged students indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among these students receiving free or reduced lunch. The phi value of .02 suggests additionally that there was no practical relationship between these two variables.

Although the test did not meet the .05 qualification for significance, the p-value of .06 approached statistical significance. However, the percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 39.4% (2,928) of the non-dramatic arts students made learning gains, while 34.3% (111) of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.
One suggestion for this potential reversal of significance is perhaps that economically disadvantaged students enrolled in a dramatic arts course may have little home support or experience to help with such abstract assignments as memorizing lines, creating a character history, thinking quickly on their feet in an improvisational type of performance, or designing sets, costumes, or lighting. Conceivably playing “make believe” may not be supported or encouraged in a home struggling to put food on the table.

Family factors include such characteristics as sociodemographic background (including parental education), resource levels (both time and money), and exposure to the arts in the home that, in turn, help shape the individual’s attitudes toward arts and culture, tastes for specific art forms, and opportunities to participate in the arts outside the home (McCarthy et al., 2004, p. 60).

Research Question 4 and Hypothesis

What relationship, if any, exists in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment?

H₀: There is a relationship in reading achievement among ninth and tenth grade Black, Hispanic and White students enrolled in remedial reading classes, who participate in dramatic arts courses and between those students in remedial reading classes who do not participate in dramatic arts courses, as demonstrated by their performance on the FCAT Reading assessment

Results for Black students indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among Black students and thus the hypothesis is rejected. The phi value of .02
suggests additionally that there was no practical relationship between these two variables.

The percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 35.0% (1,829) of the non-dramatic arts students made learning gains, while 29.8% (68) of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

Results for the Hispanic students indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among Hispanic students and thus the hypothesis is rejected. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.

The percentages making gains suggest a trend in the direction opposite to what was anticipated. A total of 41.3% (2,204) of the non-dramatic arts students made learning gains, while 38.6% (80) of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

Results for the White students indicated that there was no significant relationship between learning gains and enrollment in a dramatic arts course among White students and thus the hypothesis is rejected. The phi value of .01 suggests additionally that there was no practical relationship between these two variables.
The percentages making gains suggest a trend in the anticipated direction. A total of 46.6% (1,791) of the non-dramatic arts students made learning gains, while 49.7% (79) of the dramatic arts students made gains. Once again, this was not a large enough discrepancy to yield significance, but the trend is still apparent in this case.

The concreteness of the FCAT was perhaps not the best vehicle to measure the abstract advantages that a dramatic arts course can offer to individual ethnicities such as racial tolerance (Catterall, et al., 1999); a transformed learning environment or connecting experiences to the real world (Heath & Roach, 1999).

**Research Question 5 and Hypothesis**

What influence, if any, does participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes?

**H₀**: There is an influence in participation in dramatic arts courses have on the attendance rate of ninth and tenth grade students enrolled in remedial reading classes.

The Mann-Whitney Test, \(Z = -0.86, p = .39\), indicated that there were no significant differences in the mean ranks of the attendance variable between the non-dramatic arts \((M_r = 625.70)\) and dramatic arts \((M_r = 643.30)\) groups and therefore the hypothesis is rejected. The slightly lower mean rank for the non-dramatic arts group indicates that these students had slightly lower numbers of absences than those in the dramatic arts group.
A descriptive examination of means suggest the same results of no differences between groups. The mean number of absences for the non-dramatic arts group was 8.92, with a standard deviation of 10.10. The 95% confidence interval ranged from 8.13 to 9.71. Likewise, the mean number of absences for the dramatic arts group was 9.00, with a standard deviation of 9.66. The 95% confidence interval ranged from 8.25 to 9.75, a nearly identical span as the non-dramatic arts group.

Length of enrollment was a possible rationale for the statistical insignificance. The students at the time of testing had not been enrolled in a dramatic arts course long enough to be affected by attendance induced by an enrollment in an elective. Due to the fact that these students were just beginning their journey through the dramatic arts they had not yet been in a situation where their attendance in anything mattered. For example, a student in a play that was being performed during the day must be present or all the students involved suffer. In contrast, a student in a class where there was not a public performance or presentation can be absent and it will not affect anyone else’s quality of work.

The FCAT was designed to objectively measure a set of specific skills. It does not, however, measure intention or commitment. Research Question 5 was intrinsically tied to intention (intent to graduate) and commitment (furthering educational experiences). The FCAT was believably the incorrect instrument to measure achievement based on attendance.
Conclusions

During the year of the FCAT data, 2008-2009, most high schools in both Orange and Seminole Counties were on a six period day. On this schedule, with a mandated remedial reading course, there was little time to squeeze in an elective such as a dramatic arts course. This may account for the relatively small sample size (634 students of the beginning sample 15,895). However, in the 2009-2010 school year, most of the high schools in both counties tested moved to a seven period day, allowing students- especially remedial students- to take another elective such as a dramatic arts course.

Although the research did not show statistical significance for the research questions, it does open doors for further study. The FCAT was, in all probability, a flawed medium to measure the connection between the arts and the positive attributes that they may offer scholastically. The FCAT itself was only designed to measure math, writing, reading, and occasionally science skills, so trying to produce an arts perspective from this measurement does not lend itself to generating constructive outcomes statistically. The researcher urges caution to anyone who may misinterpret the results of this study and conclude that the arts do not offer academic support to reading. The literature review shows in case after case that the arts benefit not only arts students and arts classes, but the entire school environment and culture. A testing measure that was designed to gauge arts interests and that perhaps include questions as they relate to the affective domain was more likely to yield encouraging arts results.
The study did offer some revealing and troubling secondary findings, however, when looking at the numbers of remedial readers in both Orange and Seminole Counties. The sample size began with 15,895 freshmen and sophomores who had been classified as remedial readers due to a Level 1 or 2 score on the Reading Assessment portion of the FCAT in 2008-2008. That number alone should sound alarms. There are almost 16,000 below proficient readers in the two counties. In the next year of FCAT, a disturbing percentage of those readers did not show learning gains, therefore qualifying them for another mandatory year of reading remediation. For example, for the Black students who were not enrolled in a dramatic arts course, 65% of them did not show reading gains. For the Black students who were enrolled in a dramatic arts course, that number jumps to 70.2% who did not make reading gains. For the Hispanic population, those students not enrolled in a dramatic arts course and showing no gains, the percentage was 58.7%, while Hispanics who were also enrolled in a dramatic arts course and did not show reading gains was 61.4%. Even for the White population, where a positive trend was acknowledged, the percentage is offsetting. White students who were not enrolled in a dramatic arts course and did not show a reading gain were 53.4%, and those White students who were in a dramatic arts course and did show a gain was 49.7%.

Armed with the knowledge that every one of the above students was not only registered in an English class, but also an Intensive Reading course due to low FCAT scores the year prior, the data raises the question about the
successfulness of the remedial programs. If 50-70% of our students are repeaters from one year to the next, are the various remedial reading programs doing what they are designed to do? Nowhere else in the academic world is a 50% failure rate acceptable. Why is it now with our most disadvantaged students?

**Recommendations for Future Research**

The following are suggested topics for future research:

1. This research could involve more than two Florida school districts in order to obtain a larger sample size of students in dramatic arts courses-statewide. This expansion will assist in the male/female, Black/Hispanic/White, and the economically advantaged/disadvantaged total sample size to more equitably expand the results.

2. This research could involve more than one year of FCAT testing to expand the scope of the data collected. Students in this sample set had not yet completed one year of a dramatic arts course. Adding more years of FCAT will balance the student performance better and seamlessly overlap with the College Board SAT statistics.

3. This research could be expanded to determine why males enrolled in dramatic arts made more learning gains than female enrolled in dramatic arts by expanding the research to include all students enrolled in a dramatic arts course, not just the remedial readers.
4. Further research regarding achievements that participation in the dramatic arts may yield but that cannot be tested on a state standardized math and reading test that may include student behavior/discipline referrals, grade point average, dropout/graduation rate, and earned school leadership positions could be tracked over a four year period of those students who take four years of dramatic arts courses as opposed to those students who do not.

5. A future study could be conducted with data from a seven period day where low achieving students have more opportunity to schedule electives in addition to the required coursework and required remedial work.

6. Future research could include further studies from the results that yielding positive trends, but not statistical significance. In addition to the males outscoring the females, the additional positive trend that was noted was White students outscoring their Black and Hispanic peers.

7. Future research could examine the results of the influence of the dramatic arts using the same independent variables, but replacing the FCAT with Grade Point Average, (GPA), teacher perception survey, etc. as the dependent variable.
APPENDIX A: PERMISSION FROM SEMINOLE COUNTY SCHOOLS TO USE FCAT DATA FOR ANALYSIS
September 28, 2009

Ms. Michelle Backel
474 Yorkshire Drive
Oviedo, FL 32765

Dear Ms. Backel:

I am in receipt of the proposal and supplemental information that you submitted for permission to conduct research in the Seminole County Public Schools. After review of these documents, it has been determined that you are granted permission to conduct the study described in these documents under the conditions described herein.

If necessary you are expected to make appointments in advance to accommodate any departments i.e. the IS administration and/or staff for research time. Please do not use the SCPS email or courier mail to disseminate this information.

Please forward a summary of your project to my office upon completion.
Good Luck!

Sincerely,

Ronald L. Pinnell, Ed.D.
Executive Director
Secondary Education

Telephone: (407) 320-0039
Facsimile: (407) 320-0293
Sunscom: 351-0038

Visit our Web Site
www.scpk12.fl.us
RE: Data Request

From: Gordon L. Baldwin <gordon.baldwin@ocps.net>  
Subject: RE: Data Request  
To: "Michelle Backel" <michelle_backel@scps.k12.fl.us>  
Cc: Cynthia G. Landers <cynthia.landers@ocps.net>  

Michelle,

You don't have to do anything. I have approved the request. We will process it as soon as possible and get back with you.

Sincerely,
Senior Director
Accountability, Research, and Assessment
Telephone: (407) 317-3201

Intranet Site: Accountability, Research, and Assessment
Internet Site: Accountability, Research, and Assessment

From: Michelle Backel [mailto:michelle_backel@scps.k12.fl.us]  
Sent: Friday, October 23, 2009 1:07 PM  
To: Baldwin, Gordon L.  
Subject: Re: Data Request

Dr. Baldwin,

I completely understand. I definitely would love to include Orange County in my dissertation. Please let me know what I need to do next. Thank you so much.

Michelle

----- Original Message -----  
From: "Gordon L. Baldwin" <gordon.baldwin@ocps.net>  
To: "Michelle Backel" <michelle_backel@scps.k12.fl.us>  
Sent: Friday, October 23, 2009 9:54:16 AM GMT -05:00 US/Canada Eastern  
Subject: Data Request

Michelle,

I'm sorry it has taken so long to provide the data you requested. This year has been taking all of our time with FAIR assessments and DAM requirements. We have now gotten to the place where we can meet your request. I just want to confirm with you that you still need the data for your dissertation.

If you still need it, let me know and we can provide it within a few days. If you have moved on to complete your dissertation without it, I certainly understand.

Sincerely,
Senior Director
Accountability, Research, and Assessment
Telephone: (407) 317-3201

Intranet Site: Accountability, Research, and Assessment
Internet Site: Accountability, Research, and Assessment

The information contained in this e-mail message is intended solely for the recipient(s) and may contain privileged information. Tampering with or altering the contents of this message is prohibited. This information
APPENDIX C: UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD CONSENT
NOT HUMAN RESEARCH DETERMINATION

From: UCF Institutional Review Board #1  
FWA00000351, IRB00041138

To: Michelle Backel

Date: October 19, 2009

Dear Researcher:

On 10/19/2009, the IRB determined that the following proposed activity is not human research as defined by DHHS regulations at 45 CFR 46 or FDA regulations at 21 CFR 50/56:

Type of Review: Not Human Research Determination
Project Title: The Influence of Theater Classes on Remedial Readers on the Florida Comprehensive Assessment Test
Investigator: Michelle Backel
IRB ID: SBE-09-06469
Funding Agency: N/a
Grant Title: N/a
Research ID: N/a

University of Central Florida IRB review and approval is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are to be made and there are questions about whether these activities are research involving human subjects, please contact the IRB office to discuss the proposed changes.

On behalf of the IRB Chair, Joseph Bieritiki, DVM, this letter is signed by:

Signature applied by Joanne Muratori on 10/19/2009 04:35:39 PM EDT

IRB Coordinator
LIST OF REFERENCES


