The influence of selected demographic characteristics on the reading ability of fourth grade students in Louisiana

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THE INFLUENCE OF SELECTED DEMOGRAPHIC CHARACTERISTICS ON THE READING ABILITY OF FOURTH GRADE STUDENTS IN LOUISIANA

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the School of Human Resource Education and Workforce Development

By

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M.A., University of Mississippi, 1991
August 2011
DEDICATION

*I can do all things through Christ which strengtheneth me.*

*Philippians 4:13 KJV*

I would like to dedicate this dissertation to my family, especially my parents, for showing me the importance of hard work and for giving me the foundation that would allow me to attempt the completion of this highest level of education. To my Dad, who went to be with the Lord almost 37 years ago. You taught me that no matter what I became in life--try to be best at it.

To my wife and daughters for understanding the sacrifice that this process required. And for helping me to stay motivated and focused when I wanted to give up.
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I also wish to express my sincere appreciation to my research committee: Dr. Geraldine Johnson, Dr. Earl Johnson, and Dr. Satish Verma, for their understanding, kindness and support in working with me during this pursuit, as well as the Graduate School Representative, Dr. Steven Bickmore of the Department of Educational Theory, Policy and Practice. This group of professionals represent the finest that higher education could offer. I wish to express my appreciation to the institution of Louisiana State University. The professionalism of staff and faculty are worthy of the standards expected from a research-extensive institution of higher learning.
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ABSTRACT

The primary purpose of this study was to determine the influence of selected demographic characteristics on the reading ability of fourth-grade students in Louisiana. The dependent variable for this study was reading ability of fourth-grade students. Independent variables were demographic characteristics as measured by reading achievement (overall reading score and subscale reading score) on the LEAP assessment. The high-stakes Louisiana Educational Assessment Program (LEAP) exam is administered to fourth grade students in Louisiana. The students must pass specific areas of the test to be promoted to fifth-grade. Academic achievement data on the LEAP test were obtained from the Louisiana Department of Education.

The sample for the study was all fourth-grade students enrolled in public elementary schools in Louisiana during the 2009 school year who were tested initially and were not classified as special education, 504, or Limited English Proficiency. Data acquired from the Louisiana Department of Education were recorded in a computerized recording document. Academic achievement, as measured by Reading, Math and English Language Arts scores on the LEAP, was described and correlated with selected demographic characteristics. Demographic findings of the study showed that the largest groups of subjects were of the Caucasian race and female gender. In addition, more students were found in the socioeconomic group that received free lunch in school.

Findings of the study indicated that African-American students scored lower than all other students on all Reading, Math and English Language Arts measures examined. Additionally, Asian students were found to have achieved at higher LEAP classifications than other students in Reading, English Language Arts and Math areas.
The researcher concluded that the interaction factor between Socioeconomic Status and African-American racial status was highly significant in the achievement of fourth-grade students. Another conclusion of the study was that the Caucasian race is no longer the majority of fourth-grade students in public schools in Louisiana.

The researcher recommended that state-level administrators of educational programs in Louisiana develop new courses that would provide more remedial help for low socioeconomic African-American students to help them to close the gap that is currently apparent with the other racial groups. This might include allowing these students to choose more books they would like to read in addition to the required readings, and to better prepare teachers for the unique needs of these students in their classrooms. Efforts should be made to encourage students to make use of the school and public libraries, look into the possibility of reestablishing the “book mobile” concept in rural areas and encourage book grants or book share programs.
CHAPTER 1

INTRODUCTION

**Rationale**

In many areas of the United States of America, the absence of a good education means a lifetime of struggles. This is because in modern American society, “education is central to development and a key to attaining one’s goals. It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth” (Yes We Can, n.d., para.1).

**Importance of Education**

The importance of education can be best understood when viewed from an economic standpoint. College graduates make 100% higher salaries than high school graduates (Parenting healthy children, 2007). Without an appropriate education, it is becoming harder to provide the level of income needed to function in modern society because the economic world is growing smaller through internationalism. It has been said that without proper instruction, the stark reality is: “No education, no choice! No education means someone else makes the choice for you and your children” (Parenting healthy children, 2007, para 10). Educated persons apply literacy skills to their situation and have the ability to rationalize what is best for their families. They also have the ability to continue to gain information to improve their life situation (Parenting healthy children, 2007).

**Connection between Education and Reading**

Education is often considered to be synonymous with reading. Without the ability to read, education becomes a dream that is out of reach. The importance of reading is better viewed when one gains an understanding of the meaning of literacy. As stated by the Workforce Investment
Act of 1998, literacy goes beyond merely one’s ability to read a book. The definition provided in the act states that literacy is "an individual's ability to read, write, speak in English, compute and solve problems at levels of proficiency necessary to function on the job, in the family of the individual and in society" (The power of literacy, para. 1).

The ability to read is a necessary educational skill for success of children; however, learning to read is not an easy skill to acquire and develop. Lyon’s (1998) testimony before the Senate Committee on Labor and Human Resources indicated that Americans who do not have the ability to read, don’t make it in society. He further testified that being able to read is a great way to learn about people, history, social studies, and many other subjects.

Reading and writing are fundamental skills needed in order to participate fully in American society. “The rapid influx of technology into our daily lives, and the internationalization of the economic marketplace have raised the demand for a literate citizenry to the highest levels ever” (National Institute for Family Literacy, p. xiii).

**Impact of Poor Education/Reading Skills**

Until low socioeconomic members of society are put in a position to receive better educational opportunities, the cost to the American economy will be the extremely high cost of warehousing prisoners. When African-American men represent 6% of the United States population, it seems impossible that they represent over 40% of the prison population. “Every day in the United States, 200 new jail cells are constructed” (Fortunato, 2004, para. 3). The majority of these prisoners come from disadvantaged backgrounds. Many of these individuals have never attended high school and are barely able to read.

Improving the reading skills and providing more educational opportunity and an improved quality of life are the only answers to solving this increased incarceration problem.
Findings of recent studies showed that those who complete postsecondary programs have a better chance of achieving higher incomes and better employment opportunities. In a Louisiana Department of Education study by Picard (2006), it was found that “a focus on statistics relevant to Louisiana indicates the state ranks near the bottom of the 50 states in educational quality, effectiveness and dropout rates” (p. 10). This is very damaging to the state’s economy and future growth.

Recent studies showed there have been major changes in the necessity for a good education over the past 50 years (Why is education important, 2009). It is education that really makes the difference in the type of lifestyle an individual can expect. Once reading is embraced, then the door to a good education is opened, allowing for better opportunity. “Education provides more opportunities to graduates and to individuals who have had at least some decent years of schooling as opposed to the individuals who have not” (Why is education important, 2009, para. 2).

Oak (2008) made a strong statement for the personal importance of education. He stated that education takes away the wrong ways of thinking; it helps create an open mind about situations and reduces confusion about the conditions of the world. Education brings up questions and finds satisfactory answers to them. Education opens the door to knowing that there is a science to everything. It is about learning to reason everything until every question finds its answer. “Education can lead us to enlightenment. It is education that builds in every individual a confidence to make decisions, to face life and to accept successes and failures. It instills a sense of pride about the knowledge one has and prepares him/her for life!” (Oak, 2008, para. 5).

In addition to understanding what happens during the learning process, there is also the need to realize what should be happening. Researchers have recommended a number of ways to
improve the reading ability of young children. One theme that seems to recur is the importance of education being promoted in the home (Saint-Laurent & Giasson, 2005).

It has been said that parents are a child’s first teacher. This is a great thought, but it is practical only if the parents are prepared to strengthen the child’s skills. “It appears that the quality of parent-child interactions, even at very early child ages, is related to early literacy skills” (Dodici, Draper, & Peterson, 2003, p. 132). Too often, in low socio-economic households, parents appear to be severely lacking in basic educational skills themselves and are not able to provide much help to their children.

According to Gough and Hillinger (1980), many children read their first words in an immediate way well before they are exposed to a formal reading program. However, this first reading experience does not necessarily lead to high levels of reading skills, and rudimentary reading ability is not sufficient if America’s youth are to compete successfully in today’s global arena (Biancarosa & Snow, 2006).

Factors that Influence Reading Achievement

There are numerous factors that influence reading achievement. Three of these include socioeconomic status and race, teacher quality and geographic location. Reading achievement is one of the most important aspects of education. Without the ability to read effectively, students are assured difficulty in other schoolwork. Improving a student’s reading skills will open the door to opportunity for those who would otherwise struggle to obtain an education.

The high incidence of illiteracy in the low socioeconomic population has several distinct causes that tend to exist more in the minority population. The most profound is the lack of family structure in many minority households (Willhelm, 1986). This report indicated that over 50% of African American births in 1979 were to single parents, up from the 38% in 1970 (Willhelm,
More than four decades ago, a controversial report was released by the government that warned the Black family was in danger. It stated that one out of four Black children was born to unmarried mothers. Recent figures suggest that now almost 70% of Black children are born out of wedlock” (Page, 2005, para. 2).

Willhelm’s research has shown that children from single-parent homes have a greater chance of growing up in poverty, with less chance of success. “Family disintegration transforms…the very structure of family life; it initiates the collapse of the patriarchal kinship system and the emergence of the matriarchal family—which, in turn, brings in its wake such social pathologies as higher crime rates, increased rates of school dropouts, lower achievement aspirations, greater drug dependency, higher unemployment, and, subsequently, lower incomes that, thereafter, relegate more and more Blacks into the ranks of poverty” (Willhelm, 1986, p. 205).

Thomas and Stockton (2003) observed that once you move beyond race and ethnicity, socioeconomic status is shown to be one of the major reasons for a lack of achievement in young children. “Since Coleman’s…landmark study on Equality of Educational Opportunity, socioeconomic status has been seen as a strong predictor of student achievement. Coleman asserted that the influence of student background was greater than anything that goes on within schools.” (2003, p. 1). With Louisiana ranking as second highest in child poverty, one could expect the problem of low student achievement to be disproportionately higher within that state. Thomas and Stockton found that it is “near the bottom when it comes to per capita income, which in 1998 was only 82% of the U.S. average” (2003, p. 1).

When looking at who is most at risk of not receiving a high quality education, one wouldn’t have to look far to realize that it is race or ethnicity that is so closely intertwined with
poverty that provides one of the strongest predictors of achievement (Thomas & Stockton, 2003). Those students who find themselves in the lower socioeconomic status are at a distinct disadvantage of being prepared for the challenges of modern education. But there is more holding them back than their lack of financial resources. The minority status of students has been shown to have a more damaging effect on their academic achievement than even their socioeconomic status (Thomas & Stockton, 2003). Though gains are shown to be made in some areas, they remain insignificant in the grand scheme of things.

Biancarosa and Snow (2006) stated that with only 70% of high school students graduating on time with a regular diploma, African-American and Latino students have rates that are a full 10% lower. This is a key indicator of many of the socioeconomic problems for minorities in the country. Willhelm’s study reported that the rate of unemployment for African Americans with at least four years of college is a 50% reduction from the unemployment rate for African American with four years of high school. However, among the White population there was about a 75% reduction (Willhelm, 1986). Even before the economy of the United States began to falter, it was nearly impossible for those with substandard educations to find employment that was suitable to bring them above the poverty line. Over five million jobs have been lost in this country since the recession began in December 2007 (Powell, 2009, para. 1). There are numerous success stories, however, of those who have taken what could be called a disability and made prosperous careers with the help of someone who took the time to give them a helping hand. One such story is from one of the country’s most recognized news reporters/anchors. From his early years, CBS correspondent Byron Pitts had a speech impediment and functionally illiterate. In his book, *Step Out On Nothing*, Pitts tells how, with faith, family and friends, he overcame his illiteracy secret to become an award-winning
correspondent in broadcast journalism (Pitts, 2009). Pitts is a testament to the saying that hard work plus opportunity equals success.

Biancarosa and Snow (2006) found that stakeholders must look at the complete picture if there is to be improvement to literacy in young children. These include controlling: “the type and extent of professional development; demographic information about students that must be collected; contextual information about classrooms, schools, and communities; the structure of progress and final reports and data tables; and the creation and structure of public use data files” (p. 27).

Biancarosa and Snow (2006) further stated that ongoing professional development and instructional innovations are unlikely to be sustained or even initially implemented effectively without some type of ongoing monitoring systems to gauge progress. “Moreover, if instruction is not closely informed by ongoing formative assessment, it is too likely that teachers will overlook important gaps and improvements in students’ skills and knowledge, undermining the efficacy of instructional innovations. Finally, ongoing summative assessment is required for accountability purposes in order to evaluate the effectiveness of programs overall, for subgroups of students, and for individual students” (p. 29). They also found that self-direction is effective in improving literacy skills. Building choice into the reading plan is an easy way to improve interest in reading (p. 16). Kamil et al. (2008) showed that teachers are not taking enough responsibility for helping to improve the situation. “Many teachers report feeling unprepared to help their students or do not think that teaching reading skills in content-area classes is their responsibility” (p. 4).

Kamil et al. (2008) showed that many of the teachers don’t have the skills needed to improve student comprehension. “Professional development in direct and explicit instruction of comprehension strategies will assist all teachers, including language arts and content-area
teachers, in learning how to teach strategies. One component of professional development should be coaching teachers in the classroom as they teach. In addition, it is often helpful for teachers to practice thinking aloud on their own. They can take a text and practice explaining how they would go about summarizing the text or finding the main idea. Teachers will need to become conscious of many of the reading processes that are automatic for them” (Biancarosa & Snow, 2006, p. 19).

In Louisiana, the movement of students within and outside of the state has had a significant effect on their achievement levels. After the hurricanes swept through the state in 2005, there were major disruptions in the lives of young people, and the effects have been far-reaching. One experience common among displaced students has been being away from their school for a few weeks following the storm. Almost 40% of these students had this experience. Another common experience for these students was to leave their school due to hurricanes Katrina and Rita and not return to any Louisiana public school for the remainder of the school year (Pane, McCaffrey, Tharp-Taylor, Asmus, & Stokes, 2006). Figures show that nearly half of these displaced students show some type of inability to achieve like their classmates who were not affected. These children are not living in a vacuum, which means they are aware that they are not achieving at the level of their classmates, which could cause even more problems. It has been proven that peers have a profound effect on children at these younger ages. “Most academics recognize that a child's peers can have an impact on achievement, but the extent of that effect has been an open question” (Johnson, 2000, p. 1). Snipes, Williams, Horwitz, Soga and Casserly (1983) found that there is no clear way to assess students across all school districts in the nation, but advocated for a system whereby there could be national standards in reading, math and
science (p. iii). The problem for too long has been trying to devise a system where all students would be lumped into one database, which has proven to not be a feasible system.

**Ways to Measure Reading Achievement**

Hilliard (2004) stated that there is an idea that you can “put people, of whatever age or station, into a single ordered line of ‘intelligence’ or ‘achievement’ like numbers along a measuring tape: 86 comes after 85 and before 93” (p.1). People are just too complex for this to ever be done. He found that the purpose of assessment has left off achievement and leaned more toward a system of ranking. Students tend to become the losers when assessment is used in this fashion. Hilliard (2004) said the appearance of an equity problem arises in education, especially for minority cultural groups when this is the case. It is in this situation that students “are the canaries in the miner's cap signaling deep problems with the whole enterprise of mass-produced standardized testing and assessment, a paradigm problem” (p. 3).

Hilliard (2004) explained how the instruments used today are a marked improvement over what had been used in the past, but he found that three fundamental defects are still apparent. “Just what they measure is not known; how far it is proper to add, subtract, multiply, divide, compute ratios with the measures obtained is not known; just what the measures obtained signify concerning intellect is not known” (p. 6). These are three areas the assessments should be giving accurate measures for, but at present that is not the case. So, at present the assessment isn’t fair to the students it is intended to facilitate. While America uses mass-produced achievement tests to measure achievement, the record of validity within these instruments is woefully lacking. His argument was not for the elimination of these instruments, but he felt that the measures were not adequate across the board. “This means that they must be taken for what they are–rough instruments for data gathering as a point of departure for assessment” (p. 10).
Hilliard further explained that these assessments may show some results of exposure to instruction, and the results of the assessments may be useful and even beneficial. But, the benefits must have empirical value.

Woodall and Richards (2010) in their Bridging the Gap study advised that the teachers should take an early look at where students’ reading abilities were and based on those observations develop teaching strategies that would address any issues. They realized that the era of high stakes testing is here to stay; therefore, teachers have to make sure they are providing the most relevant information to ensure the students are prepared for the assessment.

**Purpose of the Study**

The primary purpose of this study was to determine the influence of selected demographic characteristics on the reading ability of fourth-grade students in Louisiana. The dependent variable for this study was reading ability of fourth-grade students. Independent variables were demographic characteristics as measured by reading achievement (overall reading score and subscale reading score) on the LEAP assessment.

**Objectives of the Study**

Specific objectives formulated to guide the researcher included:

1. To describe fourth-grade students in Louisiana enrolled in regular-education programs completing the LEAP assessments on the following characteristics:

   a. Age;
   b. Gender;
   c. Ethnicity;
   d. Socioeconomic status as measured by lunch prices (free, reduced or paid); and
e. Geographic region of the state.

2. To describe fourth-grade students in Louisiana enrolled in regular education programs on their reading, ELA and math achievement as measured by scores and sub-scale scores on the LEAP assessments.

3. To determine if a relationship exists between reading achievement as measured by the overall reading score and reading sub-scale scores on the LEAP assessment and the following selected demographic characteristics among fourth-grade students in Louisiana enrolled in regular-education programs:
   a. Age;
   b. Gender;
   c. Ethnicity;
   d. Socioeconomic status as measured by lunch prices (free, reduced or paid); and
   e. Geographic region of the state.

4. To determine if a relationship exists between reading achievement (as measured by Reading Scaled Scores on the LEAP test) and ELA and math achievement (as measured by scores on the ELA and Math Scaled Scores on the LEAP test) among fourth-grade students in Louisiana.

5. To determine if a model exists explaining a significant portion of the variance in the reading scores and sub-scale scores of fourth-grade students in Louisiana enrolled in regular education programs from the following characteristics:
   a. Age;
   b. Gender;
   c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced or paid); and

e. Geographic region of the state.

**Definitions**

For the purpose of this study, the researcher has operationally defined or cited a definition for each of the following terms:

a. 504 – a student with one or more disabilities

b. ELA – acronym for English Language Arts

c. Gender – female or male

d. LEAP – acronym for Louisiana Educational Assessment Program administered to fourth-and eighth-grade students in the state of Louisiana

e. NCLB – acronym for No Child Left Behind (Act)

f. NAEP – acronym for National Assessment of Educational Assessment

g. Race – racial classification (American Indian, Asian, Black, Hispanic, and White)

h. SES – acronym for Socioeconomic Status, which was determined by lunch prices (free, reduced or paid)
CHAPTER 2

REVIEW OF LITERATURE

The Importance of Education

Oak (2008) made a strong statement for the personal importance of education. He stated that education wipes out the wrong beliefs in our minds; it helps create an open mind about situations and reduces confusion about the conditions of the world. Education brings up questions and finds satisfactory answers to them. It is education that provides meaning to the world. It allows students to seek and find answers to what is not known. Education provides the eye-opening experience to things that are providing puzzles that seem unsolvable (Oak, 2008).

The importance of education is more easily understood when the approach is taken from the economic standpoint. It has been reported that college graduates make 100% higher pay than high school graduates (Parenting healthy children, 2007). In addition, the parenting healthy children website suggests five reasons for the importance of education:

1. Brain power every day is becoming far more important than brawn power, even in blue-collar jobs. For example, auto mechanics need to read and interpret manuals and computer printouts. To do this they need more schooling than mechanics of the past.
2. Increased schooling develops verbal skills, which are important in general, and especially in managerial positions.
3. Attending college or university helps one perform the day-to-day tasks of life more effectively, like locating the right doctor, searching for a good investment, finding a new job, or working out family challenges.
4. Education is important because it helps one develop new interests in life that may be entertaining or allow one to enter a new occupation.
5. Education is important because it leads to more job opportunities and a wider choice of jobs. Therefore, it is correlated with job satisfaction (Parenting healthy children, 2007, para. 1).
Without an appropriate education, it is becoming harder to function in modern society, especially considering the influence of internationalism on the shrinking nature of the world today. It has been stated that without proper instruction, the stark reality is: “No education, no choice! No education means someone else makes the choice for you and your children” (Parenting healthy children, 2007, para 4).

Recent studies show that there have been some major changes in the necessity for a good education over the past 50 years (Why is education important, 2009). It is education that really makes the difference in the type of lifestyle an individual can expect from life. It is also education that determines the quality of life one can expect. Doors are opened to those with education that normally are not open to those without it (Why is education important, 2009, para 2).

Employees can expect to see a nearly 80% reduction in career opportunities today without a college degree compared to the same individual fifty years ago. Without a moderate level of education, individuals today are finding it extremely difficult to obtain the high-paying jobs that were once available. With economies internationally shifting from being the manufacturing-based economies of yesterday to the service and communications technology-based economies today, low-level skills are nearly obsolete. In a recent report from the Census Bureau of the Commerce Department in the United States, the following sets of startling statistics are shown for various educational attainment levels:

An individual with a college master’s degree can earn $1.3 million dollars more in lifetime earnings than an individual with only a high school diploma. In the report, assuming a fulltime, year-round employment throughout a 40-year work life revealed that high school graduates can expect to earn an average of lifetime earnings of $1.2 million. On the other hand, people with an associate’s degree or some college but no degree can earn up to $1.5 to $1.6 million, and college graduates or people with
bachelor’s degrees up to $2.1 million. People with a master’s degree can earn up to $2.5 million, people with doctoral degrees can earn as much as $3.4 million during their working lives, and finally up to $4.4 million for those with professional degrees. The numbers simply state that at most ages, more education means much higher earnings. This means that there is a huge payoff at the highest educational levels. Funding for a higher level of education may be a feat for most people, but the payoff will definitely be huge in the years to come (Why is education important, 2009, para. 3).

Some say that parents are a child’s first teacher. This is a great thought, but only if the parents are prepared to strengthen the child’s skills. Too often, in low socioeconomic households the parents are severely lacking in basic educational skills themselves and are not able to provide much help to their children. The lack of educational skills among some racial groups may be one of the reasons the U.S. economy is stressed by increases in the prison populations. “Conservative national statistics suggest that two-thirds of the inmates in this country don’t read and write well enough to manage in their daily lives” (Why tutor in jails, n.d.). There appears to be a disconnection from the learning environment in the early grades that somehow perpetuates the problem.

The ability to read is necessary for any success in the education of children—but it’s not easy. This idea is clearly stated in the April 1998 testimony of Dr. G. Reid Lyon, the former Chief of the Child Development Branch, National Institute of Child Health and Human Development, National Institutes of Health, in his testimony before the Senate’s Committee on Labor and Human Resources (Lyon, 1998).

Lyon (1998) properly stated this position when he said that reading is one of the most difficult tasks encountered by children. He said that without the ability to read, life becomes nearly impossible (Lyon, 1998). He further testified that being able to read opens up the world for students to not only learn about subjects in school, but also to gain more knowledge about
people in other parts of the world and how they live. It also opens the mind to new and different ideas (Lyon, 1998). Lyon suggested that for over half the children in the nation, learning to read is an extreme challenge, and for about 25 % of these children, reading is one of the most difficult tasks they will have to master throughout their years of childhood (Lyon, 1998).

The importance of reading becomes clearer when one gains an understanding of the meaning of literacy. The definition of literacy as stated by the Workforce Investment Act of 1998 goes beyond merely one’s ability to read a book. The definition provided in the act states that literacy refers to the ability to read, write, speak, compute, and solve problems at levels necessary to function on the job, in the family, and in society (The power of literacy, para. 1). The traditional concept of literacy is the view of an individual’s ability to read; however, there is a broader view that incorporates the modernization of the world. As information and technology increasingly have shaped society, the skills needed to function successfully on a daily basis have gone beyond reading, and literacy has now come to include the skills listed in the above-noted definition (The power of literacy, para 1).

For years, students have been told they should develop a love for reading because it’s fun and good for them. At some point, however, why may be asked and will have to be answered. Barbara Freedman-De Vito (2004) gives a broad answer to the question. She states that “books help children develop vital language skills. Not only is it necessary for survival in the world of schools…but in adult life as well” (De Vito, 2004, para. 3).

Organizations such as the International Reading Association are advancing the idea of reading for fun to the point that reading enjoyment becomes a reality. They even include a love of reading as part of their mission statement. They along with others agree that an equally important goal of reading education is to foster “lifelong reading” (Guthrie, Coddington &
Wigfield, 2009). Research also showed that positively motivated students who have strong beliefs in their competence in different tasks are intrinsically motivated to learn and have clear goals. It is just the opposite for students with lower motivation for achievement (Guthrie, et. al 2009). In their 2009 study, they found that the material’s irrelevance to life is a major reason that secondary school students avoid reading. When there is no way to personally apply the information, these students often view the information as meaningless (Guthrie, et al., 2009). This is even more pronounced in African-American students, who appear to disconnect from most things associated with reading for enjoyment more than Caucasian students. Guthrie, et al., (2009) said African Americans are shown to avoid reading and achievement in school at greater rates than Caucasians and those of other races. Another finding is that African-American students who are low in avoidance are often high-achieving readers. The finding showed that it is possible the students’ “commitment to reading tasks is more associated with achievement for African-American students than for Caucasian students, which means that African-American students have a relatively high untapped potential for reading achievement” (Guthrie, et. al 2009, p. 343).

Lyon (1998) supported the premise that by middle school, those lacking in reading ability are unable to learn about the wonders of science, mathematics and the like because they cannot read the grade-level textbooks. Because it is well understood that reading ability is a necessary part of the educational process, it seems that there should be some attention given to the different learning styles of these young people. Benjamin Bloom, in 1956, as head of a group of educational psychologists, developed a classification of intellectual behavior important in learning. His finding was that nearly 100% of the test questions students encounter require them to think only at the lowest possible level…information recall (Overbaugh & Schultz, n.d.). Years
later, Bloom showed that six levels exist within the cognitive domain, ranging from simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to evaluate the highest order that is classified (Overbaugh & Schultz, n.d.). The six verbal examples that represent the intellectual activity on each level have come to be known as “Bloom’s Taxonomy.” The original six verbal examples are as follows:

1. Knowledge: arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, and state.
2. Comprehension: classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, and translate.
3. Application: apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.
5. Synthesis: arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, and write.

A group of cognitive psychologists led by Lorin Anderson, a former student of Bloom’s, updated the taxonomy during the 1990s, reflecting 21st century work. It will be noted that this work transformed the nouns presented by Bloom to verbs that would describe the different levels of the taxonomy. In addition to transforming the nouns to verbs, Anderson’s group also related questions to the six levels of intellectual activity.

1. Remembering: can the student recall or remember the information?
2. Understanding: can the student explain ideas or concepts?
3. Applying: can the student use the information in a new way?
4. Analyzing: can the student distinguish between the different parts?
5. Evaluating: can the student justify a stand or decision?
6. Creating: can the student create a new product or point of view? (Overbaugh & Schultz, n.d., para. 1).
In addition to understanding what happens during the learning process, there is also the need to realize what should be happening. Some researchers have recommended a number of ways to improve the reading ability of young children. One thing that seems to recur is the importance of education being promoted in the home. Saint-Laurent and Giasson in their 2005 article quoted several other scholars who stated that: The habits of reading books with parents is not a skill that children from low SES families tend to develop, and therefore, puts them at a disadvantage when they enter school (Saint-Laurent & Giasson, 2005).

Beck and Juel (2002) stated that attainment of decoding skills early is important because this skill attained early predicts later reading comprehension skills. There is strong and persuasive evidence that children who start slow rarely become strong readers. This lack of decoding skill appears to be the case with many low-income children in this country. According to Gough and Hillinger (1980), “many children learn to read their first words in an apparently spontaneous fashion well before they encounter any reading program” (p. 180). Yet, it is unfortunate that many children come to school without phonemic awareness, and some fail to gain it from their school experiences.

Gough and Hillinger (1980) found that some children learn to read with what seems like little difficulty, giving them a head start on their peers. The finding showed that as early as the end of the first grade and sometimes even before, there were children who had the ability to read anything put before them. However, the achievement test results showed that the average child normally has a difficult time learning to read. It's not a natural skill (Gough & Hillinger, 1980). But being something more than average readers is what is needed.
The Connection between Education and Reading

While education is of critical importance, when one examines the factors associated with poor or low educational attainment the one factor that seems to be most frequently identified is reading attainment or ability. Some students have disconnected from most things associated with reading for enjoyment. Reading has become a chore that is to be avoided unless force to do so. Guthrie, Coddington, and Wigfield (2009) found that often reading avoidance for many students is a result of believing that the texts are meaningless and irrelevant because they cannot relate to them personally. So far, there is no “evidence regarding the sources of this decoupling process, but the finding is consistent with studies showing that African-American students are more likely than Caucasian students to devalue achievement and disidentify with school reading” (p. 342). It must be noted that these results were for middle school students.

Saint-Laurent and Giasson (2005) have recommended a number of ways to improve the reading ability of young children. One thing that seems to recur is the importance of education being promoted in the home. In order for the United States to remain a leader in the free world, there is a pressing need to improve the literacy level for the majority of its citizenry. Kamil, et al., (2008) reported that nearly 70% of eighth-grade students are lower-than-proficient in their ability to comprehend text designed for their grade level. They also reported that nearly 30% of American students are reading below the basic level. In addition to this statistic, the NAEP report also showed that even students in high school with no more than average reading skills are unprepared for the workplace and college (Kamil, et al., 2008).

America today is continually plagued by this damaging situation of poor reading ability among her youth. This condition causes depression, creates criminal behavior, and destroys lives. It is simply the lack of knowledge that stems from illiteracy. Biancarosa and Snow (2006) looked
more closely at the major problem of illiteracy and found that less than 25% of students in the nation’s cities are reading at grade level and are unprepared for the rigors of high school material. In addition, they found that even the problem of struggling readers can be found in all environments; however, they are often overlooked in rural school settings. Carnevale, 2001, (as cited in Biancarosa and Snow, 2006) stated that “Students who enter ninth grade in the lowest 25 percent of their class are twenty times more likely to drop out than the highest-performing students” (p. 7)

Yet the early research has shown that the blame for illiteracy in the country has been improperly placed. While the United States Department of Education placed the blame in the American classroom, Author Rudolf Flesch addressed this issue in a book on phonics called Why Johnny Can’t Read. According to Flesch, “the teaching of reading all over the United States is totally wrong, and flies in the face of all logic and common sense” (Grim illiteracy statistics, 2007, para 8). Flesch, however, did not place the blame on the classroom schools or even the teachers. He instead blamed the methods that have been in use since the 1920s. He said “the 'look and say' method relies on memorizing and recognizing words on sight” (Grim illiteracy statistics, 2007, para 8). Since the 1930s, schools have continued to use what was called “basal reading.” Sadly, the books still being used by American children today for learning to read have basically stayed the same since the 1930s (Grim illiteracy statistics, 2007, para 9).

While numerous studies have shown that the phonics method provides better outcomes, nothing seems to change. The phonics method “first teaches that there is a relationship between the letters and the sounds, only later focusing on reading—the exact opposite of the look and say approach” (Grim illiteracy statistics, 2007, para 9). Even though the United States Department of Education has recommended phonics as the proper approach, many American schools, teachers,
and colleges that teach teachers are still not willing to give up their failed system and make the necessary adjustments for success (Grim illiteracy statistics, 2007).

NAEP figures from 1998 showed that there is a difference in the achievement levels of the different races, and the difference in minority reading achievement is a problem that has changed little since 1979 (Educational cyberplayground). Not only is the situation not new, but it does not seem to be getting better. Researchers have spent many hours and vast amounts of money looking at the causes of the problem and at what can be done to alleviate the damaging conditions that it brings (Sweet, 1996). America continues to be “one of the world's most affluent and technologically advanced societies. Free public education is available…and the federal government spends about $10 billion per year on literacy education” (Grim illiteracy statistics, 2007, para. 4). Yet the problem persists. The National Right to Read Foundation has reported that even with this staggering amount being thrown at the problem each year, over 40 million adults are still totally illiterate in America; with almost 50 million of these adults unable to read at the fourth- or fifth-grade level. This means the number of adults that are classified as functionally illiterate in this country increases by over two million each year. This includes about 20% of the high school graduates each year (Grim illiteracy statistics, 2007).

Former U.N. Secretary General Kofi Annan has offered a much-needed understanding of what the solution is to this problem that plagues the country. Secretary Annan stated correctly that, "Literacy is a bridge from misery to hope. It is a tool for daily life in modern society...for everyone, everywhere; literacy is, along with education in general, a basic human right.... Literacy is, finally, the road to human progress and the means through which every man, woman and child can realize his or her full potential” (Why tutor in jails, n.d., p.1).
These words by Secretary Annan provided a clarion call for action to those with the tools to teach. These words have been needed in educational circles for many years, but they still seem to have fallen on deaf ears. Those in positions of leadership would do well to begin now with plans to improve the American system instead of spending budgets on circumstances that occur because of inaction. A decent education for the masses is most needed at this point.

With technology improving at its current pace, there is now more need than ever to increase the literacy rate in this country. It’s been stated that education is what’s needed to reach the goals one aspires to. Education has the power to reduce the level of poverty and is the main engine of economic growth in society (Yes we can, n.d.). Information from the 2008 Census estimate showed a total Louisiana population of 4,468,976, for a 21st ranking among the states in total resident population. The racial composition of the state is nearly 65% White, with Blacks and Hispanics collectively making up about 35% of the population. In addition to these groups, there is also a still small number of Asians and Pacific Islanders now living in the state (State & County Quickfacts, 2008).

Of this population, the illiteracy rate is extremely high. In 1991, the State Policy Research study showed that less than 70% of the state’s population has graduated from high school. “The dropout rate is among the nation’s highest at 12.5% of students between 16 and 19 years old. States in Profile: The State Policy Reference Book lists Louisiana’s illiteracy rate at 16%, the nation’s worst” (Office of Lt. Governor Mitch Landrieu, 2004, p. 1). For many years, there have been efforts in Louisiana to improve this situation. Rev. Charles T. Smith, pastor of Shiloh Baptist Church in Baton Rouge, remembers the Poverty Program under the Lyndon Johnson administration that he worked with to improve literacy. “We were mainly trying to get individuals to the point where they could get a job. Many in the program were women receiving
aid for dependent children” (Personal communication, June 2009). Like many Southern states, the demographics of the state of Louisiana are still mainly rural. Of the state’s 64 parishes, 40 have fewer than 50,000 residents. Only in a third of the state’s parishes do the majority of people live in urban areas. A somewhat surprising statistic from the State Library’s website showed that there are few individuals living in Louisiana without some public library service. Of the 64 parishes, each now has an established public library system in place. According to the statistics gathered for the Public Libraries in Louisiana: Statistical Report, “1,886,802 Louisianans were registered public library users; they represent 43.8% of the state’s citizenry” (Office of Lt. Governor Mitch Landrieu, 2004, p. 1).

Even though the number of Louisiana citizens who drop out of school is high, there seems to be an understanding that basic skills need to be improved in the current employment climate. According to findings by Jenkins and Kirsch (1994), nearly 10 percent of Louisiana’s citizens are now or have been enrolled in some program to become better prepared for today’s economy. Though the progress seems to be slow, the effort is designed to be prepared for the jobs that are coming in the near future. In Louisiana, residents seem to not find the time to enroll in a training program. Of those surveyed, nearly 40% of the adults said that lack of time or interest prevented them from enrolling. Over 20% said that lack of funds would be their primary reason (Jenkins & Kirsch, 1994).

The lack of literacy skill in the State of Louisiana causes no surprise when one looks at where residents go to receive news and information. The majority of the Jenkins and Kirsch (1994) survey respondents in Louisiana reported receiving a large amount of their information about current events, public affairs, or government from television or radio. Those who get some of their information from print media earned higher average scores in the assessment than those
who do not. More than 40% of the state’s total adult population said they read a newspaper every
day, and another 44 percent said he or she reads a newspaper at least once a week. Nearly 10%
reported never reading a newspaper (p. 5). Other discoveries of the Jenkins and Kirsch (1994)
study showed that more than 20% of Louisiana respondents said they do not read any magazines
in English on a regular basis. This is shown in their average literacy scores, which were
considerably lower than the scores of those who read at least one or two magazines regularly.
Jenkins and Kirsch (1994) also expounded the idea that the level of education an individual
acquires is a determining factor in the future lifestyle of that individual. “Louisiana residents
who reported being in professional, technical, or managerial positions in their current or most
recent jobs had higher average literacy scores than those in other types of occupations, including
sales or clerical, craft or service, or labor, assembly, fishing, or farming positions” (p. 4). In
2006, the Louisiana State Department of Education determined that the debilitating problem of
illiteracy needed to be rectified. The late Dr. Cecil Picard, the then Louisiana State
Superintendent of Education, working with the State Board of Elementary and Secondary
Education, developed a plan to help diminish this problem of illiteracy. The Picard (2006) study
entitled, *Louisiana Literacy Plan: Literacy for All*, looked at ways to address the learning needs
or styles of all students in order to improve literacy in the state, therefore developing a literate
and capable workforce for the future. The study advises new ways to think about old problems.
Even though some improvement has been shown in reading for those in the early grades, not
much has changed for those in middle and high school (Picard, 2006).

Writing for Katy’s Exposure website, LaRive (2009) stated that “Only Mississippi beats
us as having the most illiterates, with the least progressive school system found in all the U.S.
Perhaps if a greater part of Louisiana voters knew how to read, they would know better how to
vote! Is it possible there is a correlation between literacy, corruption, and who we have in office?” (para 18). Studies showed there are a number of reasons for low achievement in reading. Among them are race, gender, socioeconomic status, and parental involvement.

**Impact of Poor Education/Reading Skills**

There are major changes in the world today versus 50 or so years ago. These changes as discovered by Biancarosa and Snow (2006) showed that in the 1950s an individual with a high school diploma could achieve economic stability, and a middle-class standard of living was available even to those without a high school diploma. However, in the 21st century, few opportunities existed for high school dropouts to achieve the lifestyle that was available to those a generation or two earlier (Biancarosa & Snow, 2006). It is also apparent that change continues to occur, and at an even faster pace. As noted by Barton (as cited in Biancarosa and Snow, 2006) “between 1996 and 2006, the average literacy required for all American occupations was projected to increase by 14%, with the 25 fastest-growing professions requiring far greater than average literacy demands, and the 25 fastest-declining professions requiring less than average literacy demands” (p. 8).

Illiteracy is a problem that knows no national boundaries. According to Wickens and Sandlin (2007), the United Nations Educational, Scientific, and Cultural Organization’s (UNESCO) Institute for Statistics showed that 20% of individuals worldwide are illiterate, and “more than 27 nations continue to demonstrate mass illiteracy rates” (p. 276).

The problems resulting from illiteracy affect many areas of a country’s economy. It costs nations large amounts of money to either fix the problem or to avoid it—there is no way around it. In addition to perpetuating poverty, it also plays a vital role in the increase in crime throughout a country. Yet, instead of addressing the real problem behind crime in this country, the prison
population continues to increase. In recent years, those who entered the prison system has tended to be for less serious offenses, characterized by parole violations and drug offenses. According to a 2005 study, “four out of five drug arrests were for possession, whereas, one out of five was for drug sales. The crime history for three-quarters of drug offenders in state prisons involved non-violent or drug offenses” (Webb, 2008, para 5).

The costs to American taxpayers are staggering. In 2005, it cost nearly $25,000 to keep someone incarcerated in a federal prison (uscourts.gov). Virginia Senator Jim Webb, a champion of prison reform, highlighted the statistics on his website:

**The United States has the highest reported incarceration rate in the world.** While the United States currently incarcerates 750 inmates per 100,000 persons, the world average rate is 166 per 100,000 persons. Russia, the country with the second highest incarceration rate, imprisons 628 per 100,000 persons. Compared to its democratic, advanced market economy counterparts, the United States has more people in prison by several orders of magnitude. Although crime rates have decreased since 1990, the rate of imprisonment has continued to increase.

**The United States prison system has enormous economic costs associated with prison construction and operation, productivity losses, and wage effects.** In 2006, states spent an estimated $2 billion on prison construction, three times the amount they were spending 15 years earlier. The combined expenditures of local governments, state governments, and the federal government for law enforcement and corrections total over $200 billion annually. In addition to these costs, the incarceration rate has significant costs associated with the productivity of both prisoners and ex-offenders. The economic output of prisoners is mostly lost to society while they are imprisoned. Negative productivity effects continue after release. This wage penalty grows with time, as previous imprisonment can reduce the wage growth of young men by some 30%.

**The prison system has a disproportionate impact on minority communities.** African Americans, who are 12.4% of the population, are more than half of all prison inmates, compared to one-third 20 years ago. Although African Americans constitute 14% of regular drug users, they are 37% of those arrested for drug offenses, and 56% of persons in state prisons for drug crimes (Webb, 2008, p. 1).

Senator Webb said not only are more nonviolent criminals being incarcerated, but prisons are now also housing many of the nation’s mentally ill. The number of mentally ill people in prison is nearly five times the number that are admitted into inpatient mental hospitals. “America
faces an epic problem of re-entry also. The number of ex-offenders reentering their communities from state and federal prisons increased fourfold in the past two decades. On average, however, two out of every three released prisoners will be rearrested, and one in two will return to prison within three years of release” (Webb, 2008, p. 1).

Butterfield (2004) reported the cost of fighting crime in the United States, for police, prisons and courts, “rose to a record $167 billion in 2001, the latest year for which figures are available,” according to a study by the Bureau of Justice Statistics (para. 1). This showed that $20 billion more was spent on the criminal justice system in 1999, which was the last Justice Department calculation of the cost. This figure represents a nearly 350% increase in spending over 1982, when $36 billion was the total cost to the nation, the report said. When inflation is factored in, the increase was nearly 150% (Butterfield, 2004). Research has shown that Black men make up just six percent of the U.S. population but they represent over 40% of the country’s prison population. With the increase in crime, “every day in the United States 200 new jail cells are constructed” (Fortunato, 2004, para 3). Many of these convicts come from difficult situations, many without high school diplomas and a large number with almost no literacy skills. About 30% were unemployed before entering prison, and another third were making less than $5,000 per year at the time of incarceration. Studies show that this problem is translated down to the children. Of these incarcerated parents, the children are shown to have an increased “risk of anxiety, depression, aggression, truancy, attention disorders, and poor scholastic performance” (Fortunato, 2004, para 5). There’s little reason to hope when the statistics show that “Black people are 7.8 times more likely to be imprisoned than Whites, when convicted of the same crime” (Fortunato, 2004, para 6).
According to the United States Census, per-pupil spending on public elementary and secondary education nationally was just over $9,000. The statistics showed that prisoners cost taxpayers about $40 billion a year in America. What this means in real dollars is taxpayers are spending $22,000 per year to keep each prisoner incarcerated. With that figure in mind--

If a person is sentenced to five years for stealing an item worth $300, that theft will cost the public more than $100,000. The financial responsibility on a taxpayer to cover a life term in prison is an average cost of about $1.5 million (Fortunato, 2004, para 6).

Today in the United States more money is being spent on prisons than on education. During the past 20 years, “the amount of money spent on prisons was increased by 570%, while that spent on elementary and secondary education was increased by only 33%” (heartsandminds.org, 2004, para 8). Research by Pelaez (2008) found, that the privatization of prisons that began in the 1980s, under the administrations of Ronald Reagan and Bush Sr., and reaching its height in 1990 under Bill Clinton, was a boon for Wall Street stocks. Rarely are prisons looked at as big business, but today “about 18 corporations guard 10,000 prisoners in 27 states. Private prisons receive a guaranteed amount of money for each prisoner, independent of what it costs to maintain each one” (para. 19).

With the problem of illiteracy being exceptionally high in the African-American community, the corresponding number from this racial group incarcerated shows the pressing need to improve the educational condition. Yet, finding the answer can be tough when most of the problem seems to stem from a distrust or dislike of the educational system. This distrust has a long history that seems to persist despite any efforts at improvement. Woodson (1933) stated, "Negroes have been taught facts of history, but have never learned to think. Their conception is that you go to school to find out what other people have done, and then you go out in life to imitate them” (Woodson, 1933, p. 138). This is not education in the common sense of the term.
Education is designed to make one think and to, in essence, give one something to think about. Woodson said the Negro has never been educated (Woodson, 1933). He has only been told about things which he has not been allowed to do (Woodson, 1933). That gives a somewhat clearer picture of why so many African Americans lose interest in school. In addition to ending up in prison, there are numerous other problems caused by illiteracy such as teen pregnancy, lost wages, and homelessness.

Christensen and Rosen (1996) reported for every eight babies born in the U.S., one is to a teenaged mother. One in five is born to African Americans. “The children of teenage mothers are at greater risk of lower intellectual and academic achievement… primarily due to the effects of single parenthood, lower maternal education, and large family size” (P. 5). They stated that sexual activity among teenagers is common today among all socioeconomic levels, while having a baby is not. “Adolescent childbearing is heavily concentrated among poor and low-income teenagers, most of whom are unmarried” (P. 5). Even though these low-income youths may not set out to have a baby, there may not be the motivation to avoid it. Without a future that’s promising, such as gainful employment, financial independence and a family marriage, “young people from low-income backgrounds may have little incentive to delay childbearing” (P. 5). This trend opens the door for a life of low financial possibilities and the increased risk of homelessness in the country.

Children living in low-income households face several risks not experienced by others. “They are at risk for (a) consistently scoring lower on measures of intelligence and (b) experiencing academic difficulties…These children are also more likely to have difficulty learning to read, compared to children in middle-income households, and the differences are evident as early as kindergarten” (Dodici, Draper, & Peterson, p. 126).
Studies showed that improvement to the literacy problem needs to begin at the earliest age possible. Success in literacy learning during the early grades is indicative of later literacy achievement. Over 70% of children who perform poorly in reading in third grade continue to perform poorly into high school, which further explains the importance of preparing children to enter school ready to learn (The power of literacy, 2008).

According to Beck’s (2002) findings, when word recognition skills match language skills, the student is able to read a story that matches their spoken vocabularies, concepts, and knowledge (2002). Kamil, et al. (2008) research showed that the ability to read is one of the key predictors for achievement in school, and the findings show that the modern world requires youth to have greater literacy skills today than in earlier generations. Malcolm X, the assassinated leader of the Nation of Islam, who was also an ex-convict, once said that education made the difference in his life. "I have often reflected upon the new vistas that reading opened to me. I knew right there in prison that reading had changed forever the course of my life. As I see it today, the ability to read awoke in me some long dormant craving to be mentally alive” (Why tutor in jails, n.d., p. 1).

The lack of ability to read closes the door to multiple dreams and opportunities. As noted by Alliance for Excellent Education, 2006 (as cited by Biancarosa and Snow, 2006), “Almost seven thousand students drop out of high school every school day… One of the most commonly cited reasons for this is that students simply do not have the literacy skills to keep up…which has become increasingly complex” (Biancarosa & Snow, p. 7). Their finding only reinforced what is already known. Strong literacy skills are needed to succeed in school and in life. Students without these basic skills are often at a serious disadvantage in today’s world (Biancarosa & Snow, 2006). However, almost eight million students between fourth and twelfth grade are
having serious problems in reading (Reading, 2009). Biancarosa and Snow’s report showed the urgency needed in turning the tide on these dismal numbers. Leaving high school without adequate reading and writing skills puts students at a great disadvantage. “In a society driven by knowledge and ever-accelerating demands for reading and writing skills, very few options exist for young people lacking a high school diploma. Even with a diploma in hand, today’s young people face increasing literacy demands” (p. 31). It may not be as urgent if the problem only affected a small group of people, but illiteracy will affect the future of America. Biancarosa and Snow as well as others made it known that the nation will be affected. “The ultimate victims will be not only those young people currently struggling against literacy obstacles, but also the young people of the future whose obstacles will be all the greater if we do not act now” (p. 31).

**Factors That Influence Reading Achievement**

A number of factors that have been identified that influence reading achievement levels. Some of these factors include socioeconomic status, race and teacher quality.

Of these factors that influence reading achievement, the high incidence of illiteracy in the low-socioeconomic population has several distinct causes that tend to exist more in the minority population. The most profound reason is the lack of family structure in many minority households, according to findings of a study conducted by Willhelm (1986). This report indicated that over 50% of Black births in 1979 were to out-of-wedlock parents, compared to 38% in 1970 (Willhelm, 1986). “More than four decades ago, a controversial report was released by the government that warned the Black family was in danger. It stated that one out of four Black children was born to unmarried mothers. Recent figures suggest that now almost 70 percent of Black children are born out of wedlock” (Page, 2005)

Willhelm’s (1986) research has shown that children from single-parent homes have a greater chance of growing up in poverty with less chance of success. “Family disintegration
transforms…the very structure of family life; it initiates the collapse of the patriarchal kinship
system and the emergence of the matriarchal family—which, in turn, brings in its wake such
social pathologies as higher crime rates, increased rates of school dropouts, lower achievement
aspirations, greater drug dependency, higher unemployment, and, subsequently, lower incomes
that, thereafter, relegate more and more Blacks into the ranks of poverty” (p. 205).

**Socioeconomic Status and Race**

Beyond race and ethnicity, socioeconomic status is shown to be one of the major factors
involved in achievement of young children. Edelman (1985) stated that low socioeconomic
status is especially difficult for certain racial groups. “African American children are more likely
than Caucasian children to live in low-income homes” (p. 342). House and Williams (2000)
stated that there is no way to separate the effects of SES and race. They found that there is this
connection that permeates throughout American society. “Socioeconomic status (SES) refers to
the individual’s position in a system of social stratification that differentially allocates the major
resources enabling people to achieve health or other desired goals. These resources centrally
include education, occupation, income, and assets or wealth, which are related to each other” (p.
83). Research consistently showed that African-American children are more likely to fall into the
lower socioeconomic status than most other racial groups. According to Costello, Keeler, and
Angold (2001), Caucasian children are least likely to live in poverty. “Black children were three
times as likely as White children to be living in poverty” (p. 1497).

of Educational Opportunity*, socioeconomic status has been seen as a strong predictor of student
achievement. Coleman asserted that the influence of student background was greater than
anything that goes on within schools” (p. 1). With Louisiana ranking second-highest in child
poverty, one could expect the problem of low student achievement to be disproportionately higher within that state. Thomas and Stockton (2003) found that “the per-capita personal income in Louisiana in 1998 was only 82% of the U.S. average” (p. 1). When looking at who is most at risk of not receiving a high-quality education, you wouldn’t have to look far to realize that “the factor of race or ethnicity is closely associated with that of poverty as a predictor of achievement” (p. 4). Those students who find themselves in the lower socioeconomic status are at a distinct disadvantage of being unprepared for the challenges of modern education. Though gains are shown to be made in some areas, they remain insignificant in the grand scheme of things. In addition to being disadvantaged because of race and social standing, gender has also been shown to be a determining factor in success or failure in reading achievement. Thomas and Stockton (2003) found that “Disaggregation of the 1998 NAEP reading results by gender rather than race…revealed that females outperformed males in 4th, 8th, and 12th grades, as they also did in 1992 and 1994. Research has shown that girls at this age tended to be more positive in their attitudes about reading no matter whether the reading was for school or recreation. Ability and attitude appeared to be unrelated in these students” (Thomas & Stockton, 2003).

Biancarosa and Snow (2006) stated that students who graduate on time with a regular diploma are down to 70%, with African-American and Latino students having rates that are a full 10% lower. This is a key indicator of many of the socioeconomic problems for minorities in the country (2006). Willhelm’s (1986) study reported that “the rate of unemployment for Blacks with at least four years of college is half the unemployment rate for Blacks with four years of high school. But with Whites there was about a 75% reduction” (p. 212). Even before the economy of the United States began to falter in late 2007, it was nearly impossible for those with substandard educations to find employment that would bring them above the poverty line. This
continues to be even more pronounced for African Americans. Over five million jobs have been lost in this country since the Great Recession began in December 2007 (Powell, n.d.). There are numerous success stories of those who have taken what could be called a disability and made prosperous careers with the help of someone who took the time to give them a helping hand. One such story is from one of the country’s most recognized news reporters/anchors. From his early years, CBS correspondent Byron Pitts “had a debilitating stutter and a terrible secret: he couldn't read. In his new memoir, *Step Out On Nothing*, Pitts told how, with faith and the help of family and friends, he overcame illiteracy to become an award-winning correspondent holding one of the top jobs in broadcast journalism” (Pitts, 2009). Pitts is a testament to the saying that hard work plus opportunity equals success.

As America moves closer to becoming a service economy, employees will need to be ready to step into positions without much supervision. Those students who leave high school unprepared to further their education will be “much less likely to gain full access to the country’s economic, political, and social opportunities” (Green & Forster, 2003, para 1).

Powell, et al. (2008) stated there is a major push on presently to improve early literacy “for preschool education programs targeted to children at risk of academic failure due to low-income circumstances” (p. 424). Recent policies from the federal and state levels looking at “eliminating student achievement gaps in elementary schools have bolstered the expectation that a primary purpose of pre-kindergarten programs is to promote the acquisition of knowledge and skills linked to later reading success” (p. 424). President George W. Bush’s No Child Left Behind (NCLB) is one of the major education initiatives of the century. After taking office in January 2001, Bush announced *No Child Left Behind*, his plan for “bipartisan education reform.” (A Nation at Risk, 1983, p. 1). President Bush believed that American schools could do better
and expressed his deep belief “that ‘too many of our neediest children are being left behind,’ despite the nearly $200 billion in Federal spending after the passage of the Elementary and Secondary Education Act of 1965” (A Nation at Risk, 1983, p. 1).

The NCLB Act was designed to strengthen the accountability of the Title I programs by making sure that the states were covering all schools and students to determine accountability. “The NCLB Act significantly increases the choices available to the parents of students attending Title I schools that fail to meet state standards, including immediate relief–beginning with the 2002-03 school year–for students in schools previously identified for improvement or corrective action under the 1994 ESEA reauthorization” (p. 1).

Researchers continue to look for ways to improve reading ability along with literacy skills, but the challenges continue as well.

According to the most recent results from the National Assessment of Educational Progress, the ‘Nation’s Report Card,’ only one in three U.S. eighth graders is reading at the proficient level or above, and both White students and students of color in eighth and twelfth grades scored lower in reading in 2005 than in 1992. In addition, the gap between the reading levels of White and Asian students on one hand, and African-American and Hispanic students on the other, has not narrowed since 1992 (The power of literacy, 2008, p. v).

These trends are leading the national push to boost literacy levels, particularly among adolescent students, especially students of color. Statistics from the National Assessment of Educational Progress showed that nearly 40% of today’s fourth graders have not attained the basic levels of reading achievement. This further showed that the problem of reading failure is even higher within low-income families, ethnic minority groups, and English-language learners (The power of literacy, 2008). With the minority quickly becoming the majority, there is much uncertainty about how these poorly educated citizens will cope in the high-technology future. Over 30% of America’s fourth graders are reading at levels so low they cannot complete their
schoolwork successfully. These numbers are more pronounced in Latino and African-American children. These two ethnic groups will provide the leaders of the future, but the question is what kind of future it will be if they are not prepared for the task ahead. Less than 10% of all high school graduates that are college-ready are Black, and even less are Hispanic. Just over 10 percent of all college freshmen are Black and less than eight percent are Hispanic, which is very similar to their shares of the college-age population. This suggested that it’s not a lack of financial support or discrimination that causes these groups to be underrepresented in college admissions, but the more likely cause is a failure of the schools to prepare these students for college. (Green & Forster, 2003, page 5). It may be that the parents of these students are not prepared to help their children with their homework or to provide them with even the basic skills that are normally expected of parents.

In addition to these troubling factors, the student’s family income often plays a major role in how well the student does in school. It is known that the inability to purchase extra study materials has an effect on the achievement level of the student. Johnson (2000) stated “The NAEP does not provide information on household income but does collect data on a child’s participation in the school's free and reduced price lunch program, which are the data used to determine socioeconomic status” (p. 4).

**Teacher Quality**

Kamil, et. al, (2008) showed in their research that teachers need to have some genuine expectations of the education process. “Likewise, when teachers put more emphasis on the learning process and provide a supportive environment where mistakes are viewed as growth opportunities instead of failures, students are more likely to develop learning goals” (p. 27). It has been documented that many students need extra help that a number of today’s teachers are
not prepared to provide. Students not working at the grade level “often require supplemental, intensive, and individualized reading intervention to improve their skills” (p. 31).

Biancarosa and Snow (2006) asserted that teachers don’t communicate enough about subject matter to realize what each other are teaching in their classes. This needs to change if there is to be improvement in the problem of illiteracy in this nation. Kamil, et al. (2008) showed that teachers are not taking enough responsibility for helping to improve the situation. “Many teachers report feeling unprepared to help their students or do not think that teaching reading skills in content-area classes is their responsibility” (p. 4). Educators and parents in the past understood the adage that says “it takes a village to raise a child.” If the literacy program is to be strengthened, there has to be coordination throughout the instructional team. Kamil, et. al. (2008) said it won’t be necessary for all teachers to become reading teachers, but there must be coordination, so reading becomes an integral part of the school day. Guthrie, et al. (2009) showed that African Americans more than any other ethnic group have been essentially left out of the education process. It is possible that communication is not actually occurring between teachers and this group of students. The language that these students are exposed to at home is not the language of the school, causing an apparent disconnect that is reflected at test time. Their research found that “the language used to represent intrinsic motivations has not been empirically derived from grounded studies with African-American students, which may imply that the questionnaires are less well adapted to African-American students” (p. 344).

Giving the students the easy way out is also a common occurrence according to Kamil, et al. (2008). “Researchers have found that some teachers circumvent the need for students to read texts by adjusting their assignments or methods of presenting content, rather than helping students learn the discipline-specific strategies needed for content-area work” (p. 5). Different
learning styles also have to be explored. There is no “one size fits all” when it comes to educating children. Teachers must recognize what the child brings to the table and begin there in order to be effective. The thinking of Kamil, et al. (2008) showed that many of the teachers don’t have the necessary skills needed to improve student comprehension. In other words, teachers tend to do what has worked in the past, without questioning why it worked. “Professional development in direct and explicit instruction of comprehension strategies will assist all teachers, including language arts and content-area teachers, in learning how to teach strategies…They can take a text and practice explaining how they would go about summarizing the text or finding the main idea. Teachers will need to become conscious of many of the reading processes that are automatic for them” (p. 19).

Biancarosa and Snow (2006) found that stakeholders must look at the complete picture if there is to be improvement to literacy among young children. These include controlling: “the type and extent of professional development; demographic information about students that must be collected; contextual information about classrooms, schools, and communities; the structure of progress and final reports and data tables; and the creation and structure of public use data files” (p. 27). They further stated that without a program of professional development and new ways of teaching, any improvement to the current situation had little chance of success. “Moreover, if instruction is not closely informed by ongoing formative assessment, it is likely that teachers will overlook important gaps and improvements in students’ skills and knowledge, undermining the efficacy of instructional innovations” (p. 29). They also found that self-direction is also effective in improving literacy skills. Giving students the opportunity to decide what they are interested in reading is an important first step toward improved reading skills (2006).
Flowers (2007) recognized that teachers lack knowledge in diversity issues which causes them to be ill-equipped to meet minority students where they are when they enter the classroom (2007). With the new federal and state requirements to show student progress, there is precious little time to understand the needs of students. “Accountability is the buzz word in the field of academia. Since the implementation of federal mandates like the No Child Left Behind Act and the reauthorization of the Elementary and Secondary Education Act, educational stakeholders throughout the nation have been scampering about trying to ascertain: (1) who is responsible for the dismal academic performance of the nation’s youth on state and national assessments, (2) how can it be fixed, and (3) where do they start” (Woodall & Richards, 2010, p. 2). When they looked at the results of the National Assessment of Educational Progress (NAEP), three things stood out: 1) the power to change lies with the teacher, 2) the research is available, and 3) making sure that a child can read will cure several other problems that may be encountered in school. “In other words, the solution to the nation’s poor student achievement is imbedded in students’ ability to read. The fundamental skill of reading is required in every subject that is taught throughout the public school system. Thus, if students cannot ‘read’ or comprehend contextually, then it is reasonable to conclude that they will not be academically successful” (p. 2).

Some say parents are a child’s first teacher. This is a great thought, but only if the parents are prepared to strengthen the child’s skills. “It appears that the quality of parent-child interactions, even at very early child ages, is related to early literacy skills” (Dodici, Draper, & Peterson, 2003, p. 132). Too often, in low socio-economic households though, parents appear to be severely lacking in basic educational skills themselves and are therefore not able to provide much help to their children.
According to Gough and Hillinger (1980) “many children learn to read their first words in an apparently spontaneous fashion well before they encounter any reading program” (p. 181). However, being something more than average readers is what is now needed. Today’s student will have to be somewhat of an expert in reading in order to excel. As noted by OECD, (2000) (as cited by Biancaroso and Snow, 2006) as the demand for high-tech jobs increase, the rate of unemployment increases at an ever-increasing rate for those with low education. This explains the need for the American education system to improve the abilities of its students to the point that they can compete on the global level (Biancarosa & Snow, 2006).

In addition to outside programs, the home still provides the foundation for learning. Saint-Laurent and Giasson (2005) reported that “early experiences with literacy occur through interactions with parents or siblings in everyday activities of family life. Literacy learning at home influences reading achievement in school” (p. 253). Flowers (2007) found that there is a vital link between the involvement of the parents in the child’s education and the success of that child. There is still this question mark, though, when it comes to children from certain backgrounds. “Although extensive research shows the positive benefits of parental involvement on students’ academic achievement…what is relatively unknown is which particular types of involvement best serve African-American children in improving their reading skills” (p. 426). Socioeconomic status and the quality of the teachers are two of the strongest factors involved in the reading achievement of young children. Socioeconomic status of the students and the quality of the teachers also can be factors that determine whether the student achieves or fails. When these two factors are not major influences, there is greater possibility for success.
Other Factors

In addition to the above-mentioned factors that affect a student’s ability to achieve, other factors unique to students due to geographic region play a role. In Louisiana, the movement of students within and outside the state has a significant effect on their achievement levels. Pane, McCaffrey, Taylor, Asmus, and Stokes (2006) found that after the hurricanes swept through the state in 2005, there were major disruptions in the lives of young people and the effects have been far-reaching.

The most common experience among displaced students was to be out of their original school for a few weeks following the storm. Nearly 38% of the displaced students had this experience....The second-most common experience was for students to exit from a public school due to the hurricanes and not re-enroll in any Louisiana public school for the remainder of the school year (p. 18).

Their figures showed that nearly half of these displaced students show some type of inability to achieve like their classmates who were not affected. These children are not living in a vacuum, which means they are aware that they are not achieving at the level of their classmates, which could cause even more problems.

It has been proven that peers have a profound effect on children at these younger ages. These effects carry into the school and other areas of these children’s lives. Johnson (2000) acknowledged along with other researchers that “most academics recognize that a child's peers can have an impact on achievement, but the extent of that effect has been an open question” (p. 1). Looking at the 1998 National Assessment of Educational Progress (NAEP) data on reading, this report concluded that:

--The peer effect is a particularly strong influence in academic achievement, especially for fourth graders.

--The peer effect is independent of other factors such as race, ethnicity, gender, income, and other background variables.
--Family background factors such as household environment and parental education also play an important role in explaining achievement in both the fourth and eighth grades. (p. 1)

There’s a second issue that is even more disturbing. Some literature suggested “that there is a cultural pattern within the African-American and Latino communities whereby students disparage academic achievement because it is perceived as selling out or acting white” (p. 2). These students struggle in school as well as at home. They are essentially in a Catch-22 situation. If they don’t achieve, they are looked down on at school; if they do achieve, they pay the consequences at home or in their communities.

**Ways to Measure Reading Achievement**

There are multiple ways to measure student achievement, and the methods that are currently being used are showing that the school system is not successful. One of the most recent initiatives is the No Child Left Behind Act that was implemented under the second Bush administration. Many hail the act as a very good idea, but feel it is an abysmal failure due to the lack of funding that has been provided to strengthen its objectives. The most widely used measurement is probably still the standardized test. But alternative assessments are now finding a place in a number of school systems around the nation.

**Standardized Testing**

For many years in America the standardized test has been used to determine achievement in school; however, some now believe this may not be the right way to determine achievement. Snipes, Williams, Horwitz, Soga, and Casserly (1983) found that there is no clear way to assess students across all school districts in the nation, but advocated a system whereby there could be national standards in reading, math, and science (1983). The problem for too long has been trying to devise a system where all students would be lumped into one database, which has proven not to be feasible.
Hilliard (2004) stated that there is the idea that you can “put people, of whatever age or station, into a single ordered line of ‘intelligence’ or ‘achievement’ like numbers along a measuring tape: 86 comes after 85 and before 93” (p.1). People are just too complex for this to ever be done. He found that the purpose of assessment has left off achievement and leaned more toward a system of ranking. Students tend to become the losers when assessment is used in this fashion. Hilliard said the appearance of an equity problem arises in education, especially for minority cultural groups, when this is the case. It is in this situation that students “are the canaries in the miner's cap signaling deep problems with the whole enterprise of mass produced standardized testing and assessment, a paradigm problem” (p. 3).

Hilliard (2004) further explained how the instruments used today are a marked improvement over what had been used in the past, but he found that three fundamental defects are still apparent. “Just what they measure is not known, how far it is proper to add, subtract, multiply, divide, compute ratios with the measures obtained is not known, and just what the measures obtained signify concerning intellect is not known” (p. 6). These are three areas the assessments should be giving accurate measures for, but at present that is not the case. So, the assessment doesn’t do justice to the students it is intended to facilitate. While America uses mass-produced achievement tests to measure achievement, the record of validity within these instruments is woefully lacking. His argument was not for the elimination of these instruments, but he felt that the measures were not adequate across the board. Hilliard (2004) said students can’t be looked at as instruments. They must be accepted as something akin to clay, something that is able to be fashioned into achievers, which is something that the current assessment tools are failing to achieve (2004). The instruments may give some indication of the amount of
exposure to instruction, and some of these data may even be beneficial in addition to useful. However, the benefits must be demonstrated empirically (2004).

According to the 2009 NAEP National Report card, nearly all of states are showing poor results at the fourth-grade level in reading achievement. Gewertz (2010) found that of all the states, only Kentucky saw increases in reading scores at both fourth-and eighth-grade levels since 2007. Rhode Island and the District of Columbia only saw scores improve at the fourth-grade level, and seven states–Alabama, Connecticut, Florida, Hawaii, Missouri, Pennsylvania, and Utah–saw improvement only in 8th grade (2010). “In 2007, 20% of Louisiana’s 4th grade students scored at the Proficient or above level of performance in reading, compared to 33% nationally…Louisiana ranked 50th of 50 states in 4th grade reading performance, and 44th of 50 states in 8th grade reading performance”( Louisiana State Education Progress Report, 2007-2008, p. 38). Even in Mississippi there seems to be a glimmer of hope after many years of disappointing scores across all grades. Recently, the test scores across all curricula in that state have been showing improvement:

The 2002 MCT scale scores for Mississippi students were higher than the scores in 2001 in all content areas at all grade levels. When comparing the same students across two years (grade 2 in 2001 to grade 3 in 2002, and grade 3 in 2001 to grade 4 in 2002, etc.), the 2002 results were higher than the 2001 results in all content areas at all grade levels (Mississippi Department of Education, 2002, Para. 6).

However, the state threw millions of dollars at the problem before beginning to see results. The Mississippi Legislature, The Joint Committee on Performance Evaluation and Expenditure Review, Report # 319, Executive Summary for An Evaluation of Mississippi's Assistant Reading Instructor Program showed that at the end of the 1993-94 school year, the state had spent nearly $350 million…since the program began in the fall of 1983, and “over the five years ending with the close of the 1993-94 school year, local school districts had spent an estimated $18.75 million” (para, 2). Just throwing money at the problem proved to not help at all
for a number of years because oversight was lacking. Research by Guthrie, Coddlington, and Wigfield (2009) showed that motivation or lack thereof is one of the major areas that need to be addressed to improve the illiteracy problem. They found that the:

Intrinsic motivation for reading can be defined as the enjoyment of reading activities for their own sake, which is consistent with the formulation in self-determination theory. Intrinsically motivated reading consists of text interaction for enjoyment, to satisfy curiosity and to gain the rewards of vicarious adventure, or gaining new knowledge that may be challenging (2009).

This appears to be what is lacking with many young students, but especially with African-American students. They don’t seem to see the possibility of reading just for the fun of it. There are five reasons students gave for not getting more involved in reading: “In interviews, students claim the following: (a) the school texts are not interesting…, (b) their friends do not read school materials frequently…, (c) the tasks are irrelevant to them…, (d) peers they identify with are not proficient readers…, and (e) reading conflicts with their social goals and norms” (p. 324).

Lyon (2001), in testimony before the Subcommittee on Education Reform, Committee on Education and Workforce, United States House of Representatives, discussed the No Child Left Behind Act by stating that President Bush has proposed a major reading initiative to 1) assist in the ability of children from low socioeconomic-status households to develop skills necessary for educational success, (2) to provide support that allows teachers to identify children with reading problems, and 3) to develop programs to help children overcome obstacles to reading development (p. 2). This seemed to be a great idea, but many states say it is an unfunded mandate that they cannot afford. So it has tended to be just another good idea that adds more work to the teacher’s day but offers few tangible results.

A report by the Manhattan Institute showed the American education system as failing the very people it was designed to help. Their findings showed that the public school system acts
like a pipeline. “Students should flow from the start of the pipeline entering preschool or kindergarten all the way through to the end, graduating high school prepared for college” (Green & Forster, 2003, p. 2). Their thinking was that some of the best intentions could only make the situation worse, though. The study showed that there have been a few holes detected in the system, and too many students are leaking out of the pipeline each year. There are programs that, if used properly, could change the situation. “Improving student financial aid or making affirmative action policies more aggressive is like opening the spigot at the end of the pipeline wide” (Green & Forster, 2003, p. 3).

In ethnic minorities, such as African Americans, according to Ladson and Billings (1995), a history of discrimination is shown to be a reason for the opposition these students have toward school activities (1995). This is quite possibly a handicap for these young people, but it can never be an excuse to continue with low literacy levels. However, there are strategies for improving literacy that must be examined. Biancarosa and Snow (2006) found 15 elements they showed to be effective in adolescent literacy programs. The 15 elements were aimed at improving middle and high school literacy achievement right now.

1. **Direct, explicit comprehension instruction**, which is instruction in the strategies and processes that proficient readers use to understand what they read, including summarizing, keeping track of one’s own understanding, and a host of other practices.

2. **Effective instructional principles embedded in content**, including language arts teachers using content-area texts and content-area teachers providing instruction and practice in reading and writing skills specific to their subject area.

3. **Motivation and self-directed learning**, which includes building motivation to read and learn and providing students with the instruction and supports needed for independent learning tasks they will face after graduation.

4. **Text-based collaborative learning**, which involves students interacting with one another around a variety of texts.

5. **Strategic tutoring**, which provides students with intense individualized reading, writing, and content instruction as needed.

6. **Diverse texts**, which are texts at a variety of difficulty levels and on a variety of topics.
7. **Intensive writing**, including instruction connected to the kinds of writing tasks students will have to perform well in high school and beyond.

8. **A technology component**, which includes technology as a tool for and a topic of literacy instruction.

9. **Ongoing formative assessment of students**, which is informal, often daily assessment of how students are progressing under current instructional practices.

10. **Extended time for literacy**, which includes approximately two to four hours of literacy instruction and practice that takes place in language arts and content-area classes.

11. **Professional development** both long-term and ongoing.

12. **Ongoing summative assessment of students and programs**, which is more formal and provides data reported for accountability and research purposes.

13. **Teacher teams**, which are interdisciplinary teams that meet regularly to discuss students.

14. **Leadership**, which can come from principals and teachers who have a solid understanding of how to teach reading and writing to the full array of students present in schools.

15. **A comprehensive and coordinated literacy program**, which is interdisciplinary and interdepartmental and may even coordinate with out-of-school organizations and the local community (p. 4).

Baer (2003) added to these the four levels of scoring for literacy “To facilitate the interpretation of the resulting literacy scores, four literacy levels—**Below Basic, Basic, Intermediate,** and **Proficient**—were recommended by the National Research Council’s Board on Testing and Assessment (BOTA) Committee on Performance Levels for Adult Literacy” (p. 3).

Thurlow, Laitusis, Dillon, Cook, Moen, Abedi, and O’Brien (2009) found that standardized reading assessments are designed to help “ensure that all children have the opportunity to learn essential knowledge and skills” (p. 1). However, the students participating in the process are more diverse today; therefore, the tests sometimes don’t actually show what the students know or what they can do. They believed that a fair assessment would reveal the knowledge and skills of all students, “including students whose characteristics create barriers to accurate measurement using traditional reading assessments” (p. 1). They also showed that there were “five principles that should provide the frame for accessibility for reading assessments.
Each of these principles is supported by specific guidelines that address the implementation of the principles” (Thurlow et al. 2009, p. 4).

The five principles are:

- Reading assessments are accessible to all students in the testing population, including students with disabilities.
- Reading assessments are grounded in a definition of reading that is composed of clearly specified constructs, informed by scholarship, supported by empirical evidence, and attuned to accessibility concerns.
- Reading assessments are developed with accessibility as a goal throughout rigorous and well-documented test design, development, and implementation procedures.
- Reading assessments reduce the need for accommodations, yet are amenable to accommodations that are needed to make valid inferences about a student’s proficiencies.
- Reporting of reading assessment results is designed to be transparent to relevant audiences and to encourage valid interpretation and use of these results (p. 4).

Thomas & Stockton (2003) found that when the tests don’t accurately assess what they should, there is the risk of higher retention rates which, has become the rule and not the exception (2003). Flowers (2007) felt that while standardized testing is a decent way to measure reading achievement, perhaps there may be more a more reliable strategy that can be implemented (2007). He understood that more authentic assessments may show more of what the students were actually being exposed to in the classroom on a daily basis. When looking at the role that these tests have played in the retention of students, Thomas and Stockton (2003) found that “the Louisiana Department of Education (2001) analyzed its Student Information System (SIS) data from 1997-2001 in grades K-12 and found that male students were more likely to be retained than female students, and students on free lunch were twice as likely to be retained as students not receiving any food services” (p. 8). The study found that the retention rates for fourth-and eighth-grade students were more than triple those of other students. A unique finding of this study was that “African-American students receiving reduced lunch had significantly
lower retention rates than those on free lunch or those not receiving any food services in 2000-2001” (p. 8). Woodall and Richards (2010) in their Bridging the Gap study advised that teachers should take an early look at where the students’ reading abilities were and based on those observations develop teaching strategies that would address any issues (2010). They realized that the era of high-stakes testing is here to stay; therefore, teachers have to make sure they are providing the most relevant information to ensure the students are prepared for the assessment (2010).

Alternative Assessment

In addition to the standardized tests that are used nationwide to determine achievement, there are other methods of assessment that teachers should be experimenting with to find what works. Teachers can spend more time determining whether students make progress in reading by allowing them to read aloud, giving them the opportunity to choose the books they want to read, and finding programs like the Reading to the Heart program that will provide books at no charge to the students’ parents.

Students can be regularly assessed on the books they are reading and given small rewards for success. Researchers at the National Capital Language Resource Center (NCLRC) gave a list of features for alternative assessment. They stated that:

- Assessment is based on authentic tasks that demonstrate learners' ability to accomplish communication goals.
- Instructor and learners focus on communication, not on right and wrong answers.
- Learners help to set the criteria for successful completion of communication tasks.
- Learners have opportunities to assess themselves and their peers. (http://nclrc.org/essentials/assessing/alternative.htm, para. 3).

Kamil et al. (2008) showed in their research that teachers need to spend more time stressing performance outcomes and allow students to develop performance goals. A change has
to occur in the current learning system. Students must be supported in order for goals to be attained in the development of pupils (2008). It has been documented that many students need more support and instruction than regular classroom teachers are prepared to provide. Students who are not working at the grade level “often require supplemental, intensive, and individualized reading intervention to improve their skills” (p. 31).

Summary

Education is one of the most precious gifts available to children. Without the benefits of a good education, dreams are lost and lives are shattered. The costs of not correcting the problems that illiteracy is causing are too high to ignore. With high crime rates, high poverty rates and increased teen pregnancy, it is a pressing issue that is not being addressed and is only growing worse. With Louisiana’s now-high poverty rate, the time to improve the educational system is urgent, but the No Child Left Behind Act is somehow not being true to its name in Louisiana because the numbers show that many children are being left behind.

There is a need for change in the American educational system. Too many students are being lost before they achieve what the system is designed to offer. Often these are students from low-socioeconomic situations where there is little or no motivation in the home. If there is no change forthcoming, there will be countless numbers of young people who will see the “American Dream” as something that is meant only to be viewed in movies because they won’t have the skills to read about it. The illiteracy rate in the country is causing another generation to miss the rewards of a good education, and the nation is paying the cost through the construction of more prisons than schools, increased homelessness and other social ills.

Clark (1980) in her article Citizenship and Gospel, wrote that the future requires that America prepare her minority population to take responsibility for the operations of the country
in the future. She said, “Our day of judgment may well be decided by the way we treat the least of these, our brothers, within our midst” (p. 466).
CHAPTER 3
METHODOLOGY

The primary purpose of this study was to determine the influence of selected demographic characteristics on the reading ability of fourth-grade students in Louisiana. The dependent variable for this study was reading ability of fourth-grade students as measured by Reading Scores (raw scores and scaled scores) on the LEAP assessment. Independent variables included demographic characteristics. This chapter presents information regarding procedures used in conducting the study. Topics specifically addressed population and sample, instrumentation, the procedures for data collection and how the data were analyzed.

Population and Sample

The target population for this study was all public school fourth-grade students in the State of Louisiana. The accessible population was all fourth-grade students enrolled in public elementary schools in the state of Louisiana during the 2008-2009 school year who took the LEAP test and were not classified as “special education” or “504.” The sample was 100% of the defined accessible population.

Instrumentation

A computerized recording document was used as the instrument for the research. The data received from the Louisiana Department of Education, Division of Student Standards and Assessments were in the form of an Excel spreadsheet. Variables downloaded into the study recording form included:

a. Age;
b. Gender;
c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced or paid);
e. Geographic region of the state;
f. Reading, ELA, and math achievement scores and sub-scale scores.

**Data Collection**

A completed application for exemption from institutional oversight was submitted to the Institutional Review Board seeking approval to conduct the study. When this approval was granted, a data request form was submitted to obtain LEAP data from the Louisiana Department of Education. The database provided by the Louisiana Department of Education (LDOE) included all of the necessary measurements for addressing the study objectives, but no personal identifiers for individual students were included in the database. Therefore, even though children under the age of 18 (defined as a vulnerable population by LSU’s IRB) were the primary focus of this study and made up all of the subjects, there was no risk to the members of the population since they were completely anonymous.

**Data Analysis**

Data from the 2009 LEAP test were analyzed using the Statistical Package for the Social Sciences (SPSS version 17.0 for Windows).

- **Research Objective 1**

To describe fourth-grade students in Louisiana enrolled in regular education programs completing the LEAP assessments on the following characteristics:

  a. Age;
  b. Gender;
  c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);
e. Geographic region of the state.

The data for Objective 1 were analyzed using basic descriptive statistics. Subjects were described based on selected demographics. Variables measured on a categorical scale were reported using frequencies and percentages. Variables measured on an interval scale were analyzed using means and standard deviations.

The variable, geographic region of the state, was defined for purposes of this study as the eight service center regions as designated by the Louisiana Department of Education. These regions, the label assigned by the researcher, and the parishes included in each are presented in Table 1.

Table 1  
Geographic Regions of Louisiana and Parishes in each Region.

<table>
<thead>
<tr>
<th>Region No.</th>
<th>Region Label</th>
<th>No. of Parishes</th>
<th>Parishes in the Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Northwest</td>
<td>7</td>
<td>Bienville, Bossier, Caddo, Claiborne, DeSoto, Red River, Webster</td>
</tr>
<tr>
<td>2</td>
<td>Northeast</td>
<td>14</td>
<td>Catahoula, Caldwell, Concordia, E. Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, W. Carroll</td>
</tr>
<tr>
<td>3</td>
<td>Central</td>
<td>8</td>
<td>Avoyelles, Grant, LaSalle, Natchitoches, Rapides, Sabine, Vernon, Winn</td>
</tr>
<tr>
<td>4</td>
<td>Southwest</td>
<td>5</td>
<td>Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis</td>
</tr>
<tr>
<td>5</td>
<td>West</td>
<td>7</td>
<td>Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, Vermillion</td>
</tr>
<tr>
<td>6</td>
<td>South Central North</td>
<td>11</td>
<td>East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, St. Tammany, Tangipahoa, Washington, West Baton Rouge, West Feliciana</td>
</tr>
<tr>
<td>7</td>
<td>South Central East</td>
<td>7</td>
<td>Ascension, Assumption, Lafourche, St. James, St. John, St. Mary, Terrebonne</td>
</tr>
<tr>
<td>8</td>
<td>Southeast</td>
<td>5</td>
<td>Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles</td>
</tr>
</tbody>
</table>
• Research Objective 2

To describe fourth-grade students in Louisiana enrolled in regular education programs on their reading, ELA, and math achievement as measured by scores and sub-scale scores on the LEAP assessments. The data for Objective 2 were analyzed using basic descriptive statistics including means and standard deviations for each scale and sub-scale measured.

• Research Objective 3

To determine if a relationship exists between reading achievement as measured by the overall reading score and reading sub-scale scores on the LEAP assessment and the following selected demographic characteristic among fourth-grade students in Louisiana enrolled in regular education programs.

Appropriate correlations were applied based on the level of measurement of the various demographic characteristics. For the variable Age (measured as continuous data) the Pearson Product Moment Correlation Coefficient was utilized; for the variable Gender, the t-test was used, and for the variable ethnicity, the Analysis of Variance was used.

• Research Objective 4

To determine if a relationship exists between Reading Achievement (as measured by Reading Scaled Scores on the LEAP test) and ELA and Math Achievement (as measured by scores on the ELA and Math Scaled Scores on the LEAP test) among fourth-grade students in Louisiana. When examining the relationship between the Reading Scaled Scores and the ELA and Math Scores on the test, the Pearson Product Moment Correlation Coefficient was utilized.

• Research Objective 5

To determine if a model exists explaining a significant portion of the variance in the reading scores and sub-scale scores of fourth-grade students in Louisiana enrolled in regular
education programs from the following characteristics:

a. Age;
b. Gender;
c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);
e. Geographic region of the state.

Multiple regression analysis was used with stepwise entry of independent variables due to the exploratory nature of the study. To conduct the regression analysis, independent variables that were measured on a categorical scale of measurement (nominal or ordinal) that were not natural dichotomies had to be recoded into a series of binary variables. These variables included race, socioeconomic status, and geographic regions.
CHAPTER 4

RESULTS

The primary purpose of this study was to determine the influence of selected demographic characteristics on the reading ability of fourth-grade students in Louisiana. The dependent variable for this study was reading ability of fourth-grade students. Independent variables were demographic characteristics as measured by reading achievement (overall reading score and subscale reading score) on the LEAP assessment.

The following specific objectives were formulated to guide this research:

1. To describe fourth-grade students in Louisiana enrolled in regular education programs completing the LEAP assessments on the following characteristics:
   a. Age;
   b. Gender;
   c. Ethnicity;
   d. Socioeconomic status as measured by lunch prices (free, reduced, or paid); and
   e. Geographic region of the state.

2. To describe fourth-grade students in Louisiana enrolled in regular education programs on their reading, ELA, and math achievement as measured by scores and sub-scale scores on the LEAP assessments.

3. To determine if a relationship exists between reading achievement as measured by the overall reading score and reading sub-scale scores on the LEAP assessment and the following selected demographic characteristics among fourth-grade students in Louisiana enrolled in regular education programs:
   a. Age;
b. Gender;

c. Ethnicity;

d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);

e. Geographic region of residents in the state.

4. To determine if a relationship exists between Reading Achievement (as measured by Reading Scaled Scores on the LEAP test) and ELA and Math Achievement (as measured by scores on the ELA and Math Scaled Scores on the LEAP test) among fourth-grade students in Louisiana.

5. To determine if a model exists explaining a significant portion of the variance in the reading scores and sub-scale scores of fourth-grade students in Louisiana enrolled in regular education programs from the following characteristics:

   a. Age;

   b. Gender;

   c. Ethnicity;

   d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);

   e. Geographic region of residents in the state.

A computerized recording document was used as the instrument for the research. The data from the 2009 school year received from the Louisiana Department of Education Division of Student Standards and Assessments were in the form of an Excel spreadsheet. A total of 40,100 fourth-grade students were included in the sample. These students were all attending public elementary schools in the state of Louisiana. This chapter presents the results of the study by objective.
Research Objective 1

The first objective of the study was to describe fourth-grade students in Louisiana enrolled in regular education programs completing the LEAP assessments on the following characteristics:

a. Age;
b. Gender;
c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);
e. Geographic region of residents in the state.

All selected demographic information was taken from the computerized answer document from the Louisiana Educational Assessment Program (LEAP). Students who were classified as special education, 504, and LEP were eliminated from the study. These groups were eliminated to avoid confounding effects on the students’ reading scores. There were 40,100 students who met the criteria of this objective. The results of each of these variables were as follows:

Age

The first variable on which the students were described was age. There were a total of 40,100 subjects for whom age data were available. Students taking the fourth-grade portion of the LEAP exam ranged in age from 9.8-12.44. The mean age of these students was 10.30 years ($SD = .55$).
Gender

In addition to age, the students were also described on their gender. Of the 40,100 participants in the study, data were available for 40,045. Of these students there were 20,773 (51.9%) female subjects and 19,272 (48.1%) male subjects.

Race

Another variable on which students were described was race. A total of five different races were identified among the study subjects. The race that was reported by the largest group of students was White, representing 48.3% \((n = 19,359)\) of the students, followed very closely by Black at 48.1% \((n=19,275)\). The group with the lowest number identified was American Indian at .8% \((n = 336)\) (see Table 2).

<table>
<thead>
<tr>
<th>Race</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>19,359</td>
<td>48.3</td>
</tr>
<tr>
<td>Black</td>
<td>19,275</td>
<td>48.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>759</td>
<td>1.9</td>
</tr>
<tr>
<td>Asian</td>
<td>345</td>
<td>.9</td>
</tr>
<tr>
<td>American Indian</td>
<td>336</td>
<td>.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,074</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Socioeconomic Status

Another characteristic by which students were described was their socioeconomic status. This characteristic was measured using their lunch status (free, reduced, or paid), as determined by the school and/or the Louisiana Department of Education based on submission of a prior application completed by their guardian. Data were available for 40,058 of the 40,100 students in
the study. There were 24,120 (60.2%) students that received free lunch; 3,409 (8.5%) students that received a reduced lunch rate; and 12,529 (31.3%) students that paid full price for lunch.

**Geographic Region**

The final demographic characteristic by which the students were described was the geographic region in which they reside. The state was divided into eight separate regions that had previously been designated as service center regions by the Louisiana Department of Education and labeled for purposes of this study as follows: Northwest, Northeast, Central, Southwest, South Central West, South Central North, South Central East and Southeast.

The region with the highest number of students was South Central North which included the state capital, with 9,802 students, or 24.4%. The region with the least number of students was the Southwest Region with 2,843 students, or 7.1% (see Table 3).

**Table 3**

Geographic Regions of Residence of Fourth Grade Students in Louisiana

<table>
<thead>
<tr>
<th>Region</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Central North</td>
<td>9,802</td>
<td>24.4</td>
</tr>
<tr>
<td>South Central West</td>
<td>5,573</td>
<td>13.9</td>
</tr>
<tr>
<td>Northwest</td>
<td>5,256</td>
<td>13.1</td>
</tr>
<tr>
<td>Southeast</td>
<td>4,761</td>
<td>11.9</td>
</tr>
<tr>
<td>South Central East</td>
<td>4,460</td>
<td>11.1</td>
</tr>
<tr>
<td>Northeast</td>
<td>3,812</td>
<td>9.5</td>
</tr>
<tr>
<td>Central</td>
<td>3,593</td>
<td>9.0</td>
</tr>
<tr>
<td>Southwest</td>
<td>2,843</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,100</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

**Research Objective 2**

The second objective of this study was to describe fourth-grade students in Louisiana enrolled in regular education programs on their Reading, English Language Arts (ELA), and Math Achievement as measured by scores and sub-scale scores on the LEAP assessments. The
potential scaled scores on the Reading, ELA, and Math portions of the LEAP range from 100 (the lowest possible score) to 500 (the highest possible score) divided into three categories for reading and five categories for ELA and Math. These categories and the score ranges that correspond to each category for ELA and Math are presented in Table 4. The categories for Reading contained three achievement levels, which are found in Table 5.

**Table 4**
Categories of Achievement Levels and their Respective Scaled Score Ranges for English Language Arts and Math portion of the Louisiana Educational Assessment Program (LEAP) Exam during the 2009 school year

<table>
<thead>
<tr>
<th>Achievement level</th>
<th>English Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>408-500</td>
<td>419-500</td>
</tr>
<tr>
<td>Mastery (Proficient)</td>
<td>354-407</td>
<td>370-418</td>
</tr>
<tr>
<td>Basic</td>
<td>301-353</td>
<td>315-369</td>
</tr>
<tr>
<td>Approaching Basic</td>
<td>263-300</td>
<td>282-314</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>100-262</td>
<td>100-281</td>
</tr>
</tbody>
</table>

*Note.* Taken from the LEAP and GEE Interpretive Guide, Louisiana Department of Education, 2009.

**Table 5**
Categories of Achievement Levels and their Respective Scaled Score Ranges for Reading portion of the Louisiana Educational Assessment Program (LEAP) Exam during the 2009 school year

<table>
<thead>
<tr>
<th>Achievement level</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above</td>
<td>354-500</td>
</tr>
<tr>
<td>Basic</td>
<td>301-353</td>
</tr>
<tr>
<td>Below</td>
<td>100-300</td>
</tr>
</tbody>
</table>

*Note.* Taken from the LEAP and GEE Interpretive Guide, Louisiana Department of Education, 2009

The information collected in this study to describe students’ achievement levels is presented to address each of the following sets of scores:

- LEAP scaled score for Reading;
- LEAP overall raw score for Reading;
- LEAP scaled score for ELA;
- LEAP overall raw score for ELA;
- LEAP sub-scores for ELA;
- LEAP scaled score for Math;
- LEAP overall raw score for Math;
- LEAP sub-scores for Math.

The English Language Arts (ELA) and Math portions of the LEAP test are required for promotion. In order to pass to the next grade, students must achieve a combination of at least Approaching Basic level on one part of the exam and at least Basic on the other portion of the test (LEAP and GEE Interpretive Guide, Louisiana Department of Education, 2009).

**Reading LEAP Scores**

There were 40,100 students with useable scores on the Reading portion of the LEAP. The Reading test results of the LEAP consisted of raw and scaled scores. Regarding the raw scores, they ranged from 0-36 with a mean of 22.5 (SD=6.03).

The overall Reading scores were also presented in the data converted to scaled scores. The lowest scaled score was 100 (the lowest possible score) while the highest scaled score was 500 (the highest possible score). The mean scaled score was 323.89 (SD = 38.42). In addition to presenting the student’s mean scores on the Reading portion of the LEAP, information is provided on the classification of students into the established categories. The category in which the largest number of students were classified was at the Basic level \( n = 19,545; 48.7\% \). Approximately 16.5% of the students taking this portion of the test scored unsatisfactory or did not attain the minimum score (see Table 6).
Table 6
Achievement Levels of Fourth Grade Students for the Reading portion of the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>English Language Arts Achievement Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above</td>
<td>13,952</td>
<td>34.8</td>
</tr>
<tr>
<td>Basic</td>
<td>19,545</td>
<td>48.7</td>
</tr>
<tr>
<td>Below</td>
<td>6,603</td>
<td>16.5</td>
</tr>
<tr>
<td>Total</td>
<td>40,100</td>
<td>100</td>
</tr>
</tbody>
</table>

Note. Scaled scores ranged from 100 to 500, mean 336.48 (SD=42.61)

English Language Arts LEAP Scores

There were 40,100 students with useable scores on the ELA portion of the LEAP. The ELA portion of the LEAP test consisted of scores for six content standards and scores for four subtests. Regarding the content standards, the standard that had the highest percent of correct responses was Standard 3, Use conventions of language, with a mean score of 8.42 (SD = 2.09) and 70.2% correct responses. The standard with the lowest percent of correct responses was Standard 1, Read, Comprehend and Respond, with a mean score of 5.73 (SD = 1.99) and 57.3% correct responses (see Table 7). All of these scores are reported as raw scores rather than scaled scores. The total raw scores ranged from 0–65.0 (m = 42.52, SD = 12.16).

Table 7
Mean Scores of Fourth-Grade Students for each Content Standard of the English Language Arts test for the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Standards</th>
<th>m</th>
<th>SD</th>
<th>Min.a</th>
<th>Maxb</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Use conventions of language</td>
<td>8.42</td>
<td>2.09</td>
<td>0</td>
<td>12</td>
<td>70.2</td>
</tr>
<tr>
<td>(4) Locate, select information</td>
<td>6.14</td>
<td>1.88</td>
<td>0</td>
<td>9</td>
<td>68.2</td>
</tr>
<tr>
<td>(2) Write competently</td>
<td>5.45</td>
<td>1.16</td>
<td>0</td>
<td>8</td>
<td>68.1</td>
</tr>
<tr>
<td>(6) Reasoning and problem-solving</td>
<td>11.96</td>
<td>3.24</td>
<td>0</td>
<td>18</td>
<td>66.4</td>
</tr>
<tr>
<td>(5) Read, analyze and respond</td>
<td>4.82</td>
<td>1.80</td>
<td>0</td>
<td>8</td>
<td>60.3</td>
</tr>
<tr>
<td>(1) Read, comprehend and respond</td>
<td>5.73</td>
<td>1.99</td>
<td>0</td>
<td>10</td>
<td>57.3</td>
</tr>
<tr>
<td>Total Raw Scores</td>
<td>42.52</td>
<td>12.16</td>
<td>0</td>
<td>65</td>
<td>65.4</td>
</tr>
</tbody>
</table>

Note. Standard (4) not assessed—Apply speaking and listening
aBoth possible and actual minimum score
bBoth possible and maximum score
The ELA measures were also reported as four subtests. Of these subtests, Subtest 1, Writing, with a mean score of 8.69 \( (SD = 1.68) \) had the highest percentage of correct responses (72.4%). The subtest with the lowest percentage of correct responses was Subtest 3, Using Information Sources, with a mean score of 22.50 \( (SD = 6.03) \) and 62.5% correct responses (see Table 8).

<table>
<thead>
<tr>
<th>Subtest</th>
<th>m</th>
<th>SD</th>
<th>Min.</th>
<th>Max</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Writing</td>
<td>8.69</td>
<td>1.68</td>
<td>0</td>
<td>12</td>
<td>72.4</td>
</tr>
<tr>
<td>(2) Proofreading</td>
<td>6.14</td>
<td>1.88</td>
<td>0</td>
<td>9</td>
<td>68.2</td>
</tr>
<tr>
<td>(4) Reading and responding</td>
<td>5.20</td>
<td>1.61</td>
<td>0</td>
<td>8</td>
<td>65.0</td>
</tr>
<tr>
<td>(3) Using information sources</td>
<td>22.50</td>
<td>6.03</td>
<td>0</td>
<td>36</td>
<td>62.5</td>
</tr>
</tbody>
</table>

The Writing subtest was further divided into six writing dimension scores. Information regarding these scores is presented in Table 9. The writing dimension score that was found to have the highest percentage of correct responses was Mechanics (94%). The dimensions that had the lowest percentage of correct answers were Composing and Style/audience awareness (68% correct for each) (see Table 9). There were two item types as presented in Table 10. The raw score for each item type was analyzed. Students’ percentage of correct responses for multiple choice test items was 64.0% whereas the percentage of correct responses for the constructed-response items was 53.7%.
Table 9
Mean Scores of Fourth-Grade Students for the English Language Arts Writing Dimensions for the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Dimension</th>
<th>$m$</th>
<th>$SD$</th>
<th>Min.a</th>
<th>Maxb</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) Mechanics</td>
<td>.94</td>
<td>.19</td>
<td>.0</td>
<td>1.0</td>
<td>94.0</td>
</tr>
<tr>
<td>(3) Sentence formation</td>
<td>.78</td>
<td>.36</td>
<td>.0</td>
<td>1.0</td>
<td>78.0</td>
</tr>
<tr>
<td>(6) Spelling</td>
<td>.77</td>
<td>.37</td>
<td>.0</td>
<td>1.0</td>
<td>77.0</td>
</tr>
<tr>
<td>(4) Usage</td>
<td>.73</td>
<td>.38</td>
<td>.0</td>
<td>1.0</td>
<td>73.0</td>
</tr>
<tr>
<td>(1) Composing</td>
<td>2.73</td>
<td>.59</td>
<td>.0</td>
<td>4.0</td>
<td>68.0</td>
</tr>
<tr>
<td>(2) Style/audience awareness</td>
<td>2.73</td>
<td>.59</td>
<td>.0</td>
<td>4.0</td>
<td>68.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8.68</strong></td>
<td><strong>2.43</strong></td>
<td><strong>0</strong></td>
<td><strong>12.0</strong></td>
<td><strong>72.2</strong></td>
</tr>
</tbody>
</table>

Note. Total $N$ of subject with useable data was 40,100

aBoth possible and actual minimum score
bBoth possible and actual maximum score

Table 10
Mean Scores of Fourth-Grade Students for Item Types of the English Language Arts tests for the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Item Type Subsets</th>
<th>$m$</th>
<th>$SD$</th>
<th>Min.a</th>
<th>Maxb</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Multiple-choice items</td>
<td>23.11</td>
<td>5.08</td>
<td>0</td>
<td>33</td>
<td>64.0</td>
</tr>
<tr>
<td>(2) Constructed-response items</td>
<td>10.73</td>
<td>3.81</td>
<td>0</td>
<td>20</td>
<td>53.7</td>
</tr>
</tbody>
</table>

aBoth possible and actual minimum score
bBoth possible and actual maximum score

In addition to presenting the students’ mean scores on the ELA portion of the LEAP, information is provided on the classification of students into the established categories.

Approximately 4.9% of students taking the ELA portion of the LEAP scored *Unsatisfactory* or did not attain the minimum score, whereas 16.1% scored *Approaching Basic*. Approximately 24.2% of the total population scored at the *Mastery* level (see Table 11).
<table>
<thead>
<tr>
<th>ELA Achievement Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>1,438</td>
<td>3.6</td>
</tr>
<tr>
<td>Mastery</td>
<td>9,697</td>
<td>24.2</td>
</tr>
<tr>
<td>Basic</td>
<td>20,559</td>
<td>51.3</td>
</tr>
<tr>
<td>Approaching Basic</td>
<td>6,444</td>
<td>16.1</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>1,962</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Note.** Scaled scores ranged from 100 to 500, mean 334.96 (SD=46.41).

**Math LEAP Scores**

There were 40,100 students with useable scores on the math portion of the LEAP. The math portion of the LEAP test consisted of 6 standards and 2 subtests. Regarding the content standards, the standard that had the highest percent of correct responses was Standard 3, Measurement, with a mean score of 4.60 ($SD = 1.31$) and 77.0% correct responses (see Table 12). The standard with the lowest percent of correct responses was Standard 6, Patterns, relations and functions, with a mean score of 8.56 ($SD = 2.47$) and 66.0% correct responses. All of these scores are reported as raw scores rather than scaled scores. The total raw scores ranged from 0-72.0 ($m = 49.19$, $SD = 13.78$).

There were two item-type subtests as presented in Table 13. Students’ percentages of correct responses for multiple-choice test items (71.0%) were higher than for the constructed-response items (55.8%).

The overall math scores in the data were also converted to scaled scores. The lowest scaled score was 100 (the lowest possible score) while the highest scaled score was 500 (the highest possible score). The mean score for this portion of the test was 334.96 ($SD = 46.41$). In addition to presenting the students’ mean scores on the math portion of the LEAP, information is provided on the classification of students into the established categories. Approximately 10.3%
of students taking the math portion of the LEAP scored *Unsatisfactory* or did not attain the minimum score whereas 19.6% scored *Approaching Basic* (see Table 14). Approximately 15.3% of the total population scored at the *Mastery* level (see Table 15).

**Table 12**  
Mean Scores for Fourth-Grade Students for each Content Standard of the Math test for the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Test</th>
<th>m</th>
<th>SD</th>
<th>Min.a</th>
<th>Maxb</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Measurement</td>
<td>4.60</td>
<td>1.31</td>
<td>0</td>
<td>6.0</td>
<td>77.0</td>
</tr>
<tr>
<td>(2) Algebra</td>
<td>2.21</td>
<td>0.75</td>
<td>0</td>
<td>3.0</td>
<td>74.0</td>
</tr>
<tr>
<td>(4) Geometry</td>
<td>11.25</td>
<td>2.66</td>
<td>0</td>
<td>16.0</td>
<td>70.3</td>
</tr>
<tr>
<td>(5) Data analysis, problem and discrete math</td>
<td>6.67</td>
<td>2.05</td>
<td>0</td>
<td>10.0</td>
<td>67.0</td>
</tr>
<tr>
<td>(1) Number and number relations</td>
<td>15.96</td>
<td>4.54</td>
<td>0</td>
<td>24.0</td>
<td>66.5</td>
</tr>
<tr>
<td>(6) Patterns, relations and functions</td>
<td>8.56</td>
<td>2.47</td>
<td>0</td>
<td>13.0</td>
<td>66.0</td>
</tr>
<tr>
<td><strong>Total Raw Scores</strong></td>
<td><strong>49.19</strong></td>
<td><strong>13.78</strong></td>
<td><strong>0</strong></td>
<td><strong>72.0</strong></td>
<td><strong>68.3</strong></td>
</tr>
</tbody>
</table>

aBoth possible and actual minimum score  
bBoth possible and actual maximum score  
cDoes not equal the sum of measures in the column  
dPossible maximum score, actual maximum score is 76.0

**Table 13**  
Mean Scores by Item Types for Fourth-Grade Students for the Math Subtests for the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Item Type Subsets</th>
<th>m</th>
<th>SD</th>
<th>Min.a</th>
<th>Maxb</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Multiple-choice items</td>
<td>42.58</td>
<td>9.89</td>
<td>0</td>
<td>60.0</td>
<td>71.0</td>
</tr>
<tr>
<td>(2) Constructed-response items</td>
<td>6.69</td>
<td>2.21</td>
<td>0</td>
<td>12.0</td>
<td>55.8</td>
</tr>
</tbody>
</table>

aBoth possible and actual minimum score  
bBoth possible and actual maximum score

**Table 14**  
Achievement Levels for Fourth-Grade Students for the Math portion of the 2009 Louisiana Educational Assessment Program (LEAP) Exam

<table>
<thead>
<tr>
<th>Math Achievement Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>1,426</td>
<td>3.6</td>
</tr>
<tr>
<td>Mastery</td>
<td>6,125</td>
<td>15.3</td>
</tr>
<tr>
<td>Basic</td>
<td>20,573</td>
<td>51.3</td>
</tr>
<tr>
<td>Approaching Basic</td>
<td>7,847</td>
<td>19.6</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>4,127</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Note. Scaled scores ranged from 100 to 500, mean 334.96 (SD=46.41).
Research Objective 3

To examine the relationship between Reading Score and each of the selected demographic characteristics, the researcher chose the statistical procedure that was both appropriate and maximized the interpretability of the results.

Relationship between Age and Reading Scores

For the variable Age (measured as continuous data) the Pearson Product Moment Correlation Coefficient was utilized. A statistically significant correlation was found between Age and Reading Score (r = -.20, p < .001). The nature of this relationship was such that students who were younger tended to have higher Reading Scores.

Relationship between Gender and Reading Scores

To examine the relationship between Gender and Reading Scores, the researcher determined that the most appropriate procedure was to compare Reading Scores by categories of the variable Gender using the independent t-test. This test was selected to maximize the ease of interpretation of the analysis. The 19,272 male students in the study were found to have a mean Reading Score of 333.94 (SD = 43.55), while the 20,773 female students had a mean Reading Score of 338.90 (SD = 41.52). The results of the statistical comparisons revealed a significant t-value (t =11.65 with df=39,450, p <.001) indicating that female students had significantly higher Reading Scores than male students (See Table 15).

| Table 15 |
| Comparison of the Reading Scaled Scores portion of the 2009 Louisiana Educational Assessment Program (LEAP) Exam of Fourth-Grade Students by Gender |

<table>
<thead>
<tr>
<th>Gender</th>
<th>Reading</th>
<th>Female Mean/SD</th>
<th>Male Mean/SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scaled</td>
<td>338.90/41.52</td>
<td>333.94/43.55</td>
<td>11.65</td>
<td>39,450</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Relationship between Ethnicity and Reading Scores

The nominal variable ethnicity was examined for a relationship with Reading Scores on the LEAP assessment. This study identified five different race categories (American Indian, Asian, Black, Hispanic, and White) among the study subjects. The test used to compare Reading Scores by ethnicity was the One-Way ANOVA. The significant F value indicated that at least one significant difference existed among the race categories (See Table 16). Tukey’s Post Hoc Multiple Comparison Test was used to identify the specific difference(s) among the race groups. The test showed that Asian students had the highest reading scores and were significantly different from the other four race groups. Additionally, Black students had the lowest reading scores and were significantly different from the other four race groups (see Table 17 and Table 18).

Table 16
Analysis of Variance of Reading Scaled Scores by Race of Fourth-Grade Regular Education Students in Louisiana

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4</td>
<td>1572959.061</td>
<td>948.934</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>40,069</td>
<td>1657.606</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40,073</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 17
Mean Reading Scaled Scores by Ethnicity of Fourth-Grade Students in Louisiana

<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>345</td>
<td>356.18</td>
<td>42.34</td>
</tr>
<tr>
<td>White</td>
<td>19,359</td>
<td>348.70</td>
<td>39.97</td>
</tr>
<tr>
<td>Hispanic</td>
<td>759</td>
<td>343.09</td>
<td>41.48</td>
</tr>
<tr>
<td>Black</td>
<td>19,275</td>
<td>323.55</td>
<td>41.45</td>
</tr>
<tr>
<td>Total</td>
<td>40,074</td>
<td>1711.70</td>
<td>202.48</td>
</tr>
</tbody>
</table>
Table 18
Tukey’s Post Hoc Multiple Comparison of Reading Scaled Scores by Categories of Race

<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>19,275</td>
<td>323.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>336</td>
<td></td>
<td>340.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>759</td>
<td></td>
<td>343.09</td>
<td>343.09</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>19,359</td>
<td></td>
<td></td>
<td>348.70</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>345</td>
<td></td>
<td></td>
<td></td>
<td>356.68</td>
</tr>
</tbody>
</table>

Note. Groups that are listed in a column together are not significantly different.

Relationship between SES and Reading

For the variable socioeconomic status, there were 40,058 students with usable data. Of these students 12,529 (SD=39.80) paid for their lunch and over half, 24,120 (SD=41.34) received free lunch. The significant F value indicated that at least one significant difference existed among the socioeconomic-status categories (See Table 19).

Table 19
Analysis of Variance of Reading Scaled Scores by Socioeconomic Status

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6302923.980</td>
<td>2</td>
<td>3151461.990</td>
<td>1907.131</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6.619E7</td>
<td>40,055</td>
<td>1652.462</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7.249E7</td>
<td>40,057</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20
Mean Reading Scaled Scores by Socioeconomic Status of Fourth Grade Students in La.

<table>
<thead>
<tr>
<th>Lunch</th>
<th>N</th>
<th>m</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid</td>
<td>12,529</td>
<td>354.03</td>
<td>39.80</td>
</tr>
<tr>
<td>Reduced</td>
<td>3,409</td>
<td>342.09</td>
<td>38.82</td>
</tr>
<tr>
<td>Free</td>
<td>24,120</td>
<td>326.64</td>
<td>41.34</td>
</tr>
<tr>
<td>Total</td>
<td>40,058</td>
<td>336.52</td>
<td>42.54</td>
</tr>
</tbody>
</table>

Data were available for 40,058 fourth-grade students for the variable socioeconomic status. The mean score for the students receiving free lunch was 326.64 and the mean score for
those who paid full price for lunch was 354.03. (See Table 20). Each of the three socioeconomic status groups was significantly different. (See Table 21).

Table 21
Comparison of Reading Scaled Scores by Socioeconomic Status

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free</td>
<td>24,120</td>
<td>326.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced</td>
<td>3,409</td>
<td></td>
<td>342.09</td>
<td></td>
</tr>
<tr>
<td>Paid</td>
<td>12,529</td>
<td></td>
<td></td>
<td>354.03</td>
</tr>
</tbody>
</table>

Note. See Table 16.

Relationship between Geographic Location and Reading

Geographic regions were compared using One-Way ANOVA, and significance was found. Tukey’s was used to follow up to determine where the differences were (See Table 22).

The majority of the students in the study resided in geographic region 6 (n=9802, m=336.36). The region with the least number of students was region 4 (n=2843, m=343.15). (See Table 23).

Table 22
Analysis of Variance of Reading Scaled Scores by Geographic Region

<table>
<thead>
<tr>
<th></th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7</td>
<td>74513.925</td>
<td>41.332</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>40092</td>
<td>1802.813</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40099</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 23
One-Way ANOVA Comparison of Reading Scaled Scores by Geographic Region

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>N</th>
<th>m</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2,843</td>
<td>343.15</td>
<td>39.66</td>
</tr>
<tr>
<td>3</td>
<td>3,593</td>
<td>339.87</td>
<td>40.94</td>
</tr>
<tr>
<td>7</td>
<td>4,460</td>
<td>339.28</td>
<td>41.25</td>
</tr>
<tr>
<td>2</td>
<td>3,812</td>
<td>338.13</td>
<td>40.36</td>
</tr>
<tr>
<td>5</td>
<td>5,573</td>
<td>337.31</td>
<td>41.15</td>
</tr>
<tr>
<td>6</td>
<td>9,802</td>
<td>336.26</td>
<td>44.54</td>
</tr>
<tr>
<td>1</td>
<td>5,256</td>
<td>332.96</td>
<td>43.33</td>
</tr>
<tr>
<td>8</td>
<td>4,761</td>
<td>329.49</td>
<td>44.15</td>
</tr>
<tr>
<td>Total</td>
<td>40,100</td>
<td>336.48</td>
<td>42.61</td>
</tr>
</tbody>
</table>

For the variable geographic region, Region 8 students had significantly lower mean test scores (329.40) than every other geographic region in the study. Geographic region 4 had significantly higher mean test scores (343.15) than every other region in the study. (See Table 24).

Table 24
Tukey’s Comparison of Geographic Region and Reading Scaled Scores

<table>
<thead>
<tr>
<th>Geo. Reg</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>4,761</td>
<td>329.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5,256</td>
<td></td>
<td>332.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>9,802</td>
<td></td>
<td></td>
<td>336.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5,573</td>
<td></td>
<td></td>
<td>337.31</td>
<td>337.31</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3,812</td>
<td></td>
<td></td>
<td>338.13</td>
<td>338.13</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>4,460</td>
<td></td>
<td></td>
<td></td>
<td>339.28</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3,593</td>
<td></td>
<td></td>
<td></td>
<td>339.87</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2,843</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>343.15</td>
</tr>
</tbody>
</table>

Research Objective 4

To determine if a relationship exists between Reading Achievement (as measured by Reading Scaled Scores on the LEAP test) and ELA and Math Achievement (as measured by scores on the ELA and Math Scaled Scores on the LEAP test) among fourth-grade students in Louisiana. Reading and ELA scores were available for 40,100 students, and math scores were
available for 40,098 students. When examining the relationship between the Reading Scaled Scores and the ELA and Math Scores on the test, the Pearson Product Moment Correlation Coefficient was utilized. A significant correlation was found between students’ reading scores and their ELA scores \( (r = .934, p< .01) \). In addition, a significant correlation was found between students’ reading scores and their math scores \( (r = .651, p< .01) \).

**Research Objective 5**

Research Objective 5 was to determine if a model exists explaining a significant portion of the variance in the academic achievement (as measured by LEAP Reading Scaled scores) of fourth-grade students in Louisiana enrolled in regular education programs from the following characteristics:

a. Age;
b. Gender;
c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced or paid);
e. Geographic region of residents in Louisiana.

Objective 5 was analyzed by using multiple regression analysis. To accomplish this objective, the Reading Scaled Score was selected as the most appropriate measure of achievement. To conduct the regression analysis, independent variables that were measured on a categorical scale of measurement (nominal or ordinal) that were not natural dichotomies had to be recoded into a series of binary variables. These variables included race, socioeconomic status, and geographic regions. Measurements for the variable race were categorized into one of five racial groups (American Indian, Asian, Black, Hispanic, and White). Data were recoded so that for each of these racial categories, subjects were classified as either having that trait or not
having that trait. For example, all subjects in the study were classified as either American Indian or not American Indian, etc. Therefore, five binary variables (one for each category of race) were created and prepared for use in the regression analysis. Similarly, for the variable socioeconomic status, each subject was classified as either receiving free lunch or not receiving free lunch, etc. Therefore, for this trait (socioeconomic status), three variables were created (one for each measurement category) for use in the regression analysis. The final independent variable to be recorded was geographic region, which consisted of eight categories that required the creation of eight binary variables (one for each geographic region) and prepared for use in the regression analysis. It is believed that low socioeconomic status of African-American students is a major contributing factor in their low achievement levels. House and Williams (2000) stated that there is no way to separate the effects of SES and race. They found that this connection permeates throughout American society. “Socioeconomic status (SES) refers to individuals' position in a system of social stratification that differentially allocates the major resources enabling people to achieve health or other desired goals. These resources centrally include education, occupation, income, and assets or wealth, which are related to each other” (p. 83). Research consistently showed that African American children are more likely than most other racial groups to fall into the lower socioeconomic status. According to Costello, Keeler, and Angold (2001), Caucasian children are least likely to live in poverty. “Black children were three times as likely as White children to be living in poverty” (p. 1497).

After the independent variables were prepared for entry into the regression analysis, the researcher examined the bivariate correlations between the dependent variable (in this case the Reading Scaled Score) and each of the independent variables planned for inclusion in the analysis. These bivariate correlations are presented in Table 23. Based on the literature indicating
the relationship between African American status and SES, the researcher created a variable to represent the interaction between these measures. Out of the 19 variables examined, 16 were found to be significantly related to the Reading Scaled Score (see Table 25). The variable that had the highest correlation with the Reading Scaled Score was Interaction between African-American status and SES ($r = -0.31, p < .001$).

Table 25
Relationship between Reading Scale Scores of the Louisiana Educational Assessment Program (LEAP) Exam and Selected Demographic Characteristics of Fourth-Grade Students in Louisiana

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R$</th>
<th>$N$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES by race</td>
<td>-0.31</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Race Black</td>
<td>-0.29</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lunch Free</td>
<td>-0.29</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lunch Paid</td>
<td>0.28</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Race White</td>
<td>0.28</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Age</td>
<td>-0.19</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo Southeast</td>
<td>-0.06</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.06</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Race Asian</td>
<td>0.05</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo Southwest</td>
<td>0.04</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lunch Reduced</td>
<td>0.04</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo. NW</td>
<td>-0.03</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo Central</td>
<td>0.03</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo South Central East</td>
<td>0.02</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Race Hispanic</td>
<td>0.02</td>
<td>39993</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Geo NE</td>
<td>0.01</td>
<td>39993</td>
<td>.008</td>
</tr>
<tr>
<td>Geo South Central West</td>
<td>0.01</td>
<td>39993</td>
<td>.054</td>
</tr>
<tr>
<td>Race American Indian</td>
<td>0.01</td>
<td>39993</td>
<td>.053</td>
</tr>
<tr>
<td>Geo South Central North</td>
<td>-0.00</td>
<td>39993</td>
<td>.298</td>
</tr>
</tbody>
</table>

*Female coded 1 and Male coded 2

The final aspect of preparation for conducting the regression analysis was to test for excess multicollinearity among the independent variables in the analysis (gender, race, socioeconomic status, and geographic region). The procedure used to test for multicollinearity was to examine the tolerance values. Tolerance, as defined by Hair, Black, Babin, Anderson and Tatham (2006), is “the amount of variability of the selected independent variable not explained
by the other independent variables” (p. 227). Hair suggested that a tolerance value of less than .10 indicates excessive multicollinearity. The tolerance values in this analysis ranged from .25 to .99; therefore, no instances of excess multicollinearity were judged to be present in this data.

The next step in the analysis was to enter the independent variables into the analysis using the stepwise technique with the stipulation that only variables that added 1% or more to the explanatory model would be part of the model and then only if the overall model was significant. The first variable to enter the regression model was the interaction factor between SES and African-American racial status. The interaction factor alone explained 9.8% of the variance (see Table 26). A total of three variables entered the regression model and explained 13% of the variance. Variables that did not enter the model are also presented in Table 26. Two of the variables that were included in the significant regression model were found to have a negative influence on the student’s performance on the reading score and one of the variables was found to have a positive influence. Subjects who had higher levels of interaction between SES and African-American status tended to have lower performance scores on the reading test. Similarly, students who were younger tended to have higher reading scores and students who had a higher SES as indicated by a paid lunch status tended to have higher reading scores.

Table 26
Multiple Regression Analysis of Reading Scaled Scores on Selected Demographic Characteristics of High School Students in Louisiana

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Df</th>
<th>Ms</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3</td>
<td>3142363.246</td>
<td>1997.259</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Residual</td>
<td>39989</td>
<td>1573.338</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>39992</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Variables in the Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>R2 Cumulative</th>
<th>R2 Change</th>
<th>F Change</th>
<th>p Change</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>SESxRace Interaction</td>
<td>.098</td>
<td>.098</td>
<td>4321.997</td>
<td>&lt;.001</td>
<td>-.214</td>
</tr>
<tr>
<td>Age</td>
<td>.118</td>
<td>.020</td>
<td>916.278</td>
<td>&lt;.001</td>
<td>-.133</td>
</tr>
<tr>
<td>Paid Lunch Status</td>
<td>.130</td>
<td>.013</td>
<td>577.626</td>
<td>&lt;.001</td>
<td>.135</td>
</tr>
</tbody>
</table>

## Variables not in the Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sign t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race Black</td>
<td>-.001</td>
</tr>
<tr>
<td>Gender</td>
<td>-.001</td>
</tr>
<tr>
<td>Race White</td>
<td>-.001</td>
</tr>
<tr>
<td>Geo Northwest</td>
<td>-.001</td>
</tr>
<tr>
<td>Geo Northeast</td>
<td>-.001</td>
</tr>
<tr>
<td>Race Asian</td>
<td>-.001</td>
</tr>
<tr>
<td>Geo Southeast</td>
<td>-.001</td>
</tr>
<tr>
<td>Geo Southwest</td>
<td>.004</td>
</tr>
<tr>
<td>Geo Central</td>
<td>.024</td>
</tr>
<tr>
<td>Lunch Free</td>
<td>.061</td>
</tr>
<tr>
<td>Lunch Reduced</td>
<td>.061</td>
</tr>
<tr>
<td>Geo South Central North</td>
<td>.101</td>
</tr>
<tr>
<td>Race American Indian</td>
<td>.108</td>
</tr>
<tr>
<td>Race Hispanic</td>
<td>.259</td>
</tr>
<tr>
<td>Geo South Central West</td>
<td>.673</td>
</tr>
<tr>
<td>Geo South Central East</td>
<td>.884</td>
</tr>
</tbody>
</table>
CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Purpose

The primary purpose of this study was to determine the influence of selected demographic characteristics on the reading ability of fourth-grade students in Louisiana. The dependent variable for this study was whether demographic characteristics have an effect on the reading ability of fourth-grade students.

Objectives

Specific objectives formulated to guide the researcher included:

1. To describe fourth-grade students in Louisiana enrolled in regular education programs completing the LEAP assessments on the following characteristics:
   a. Age;
   b. Gender;
   c. Ethnicity;
   d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);
   e. Geographic region of residents in the state.

2. To describe fourth-grade students in Louisiana enrolled in regular education programs on their reading, ELA, and Math achievement as measured by scores and sub-scale scores on the LEAP assessments.

3. To determine if a relationship exists between reading achievement as measured by the overall reading score and reading sub-scale scores on the LEAP assessment and the following selected
demographic characteristics among fourth grade students in Louisiana enrolled in regular education programs:

a. Age;

b. Gender;

c. Ethnicity;

d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);

e. Geographic region of residents in the state.

4. To determine if a model exists explaining a significant portion of the variance in the reading scores and sub-scale scores of fourth-grade students in Louisiana enrolled in regular education programs from the following characteristics:

a. Age;

b. Gender;

c. Ethnicity;

d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);

e. Geographic region of residents in the state.

Methodology

Population and Sample

The target population for this study was all public school fourth-grade students in the state of Louisiana. The accessible population was all fourth-grade students enrolled in public elementary schools in the state of Louisiana during the 2008-2009 school year who took the LEAP test and were not classified as “special education” or “504.” The sample was 100% of the defined accessible population.
**Instrumentation**

A computerized recording document was used as the instrument for the research. The data received from the Louisiana Department of Education, Division of Student Standards and Assessments, were in the form of an Excel spreadsheet. Variables were downloaded into the study recording form and included:

a. Age;
b. Gender;
c. Ethnicity;
d. Socioeconomic status as measured by lunch prices (free, reduced, or paid);
e. Geographic region of the state;
f. Reading, ELA, Math achievement scores and sub-scale scores.

Assessments were in an ASCII file format with the file layout in an Excel document. The data were then transferred to SPSS for analysis.

**Data Collection**

A completed application for exemption from institutional oversight was submitted to the Institutional Review Board seeking approval to conduct the study. Next, a data request form was submitted to obtain LEAP data for the 2009 school year from the Louisiana Department of Education. The database provided by the Louisiana Department of Education (LDOE) included all of the necessary measurements for addressing the study objectives, but no personal identifiers for individual students were included in the database. Therefore, even though children under the age of 18 (defined as a vulnerable population by LSU’s IRB) are the primary focus of this study
and made up all of the subjects, there was no risk to the members of the population since they were completely anonymous.

Summary of Major Findings

- Research Objective 1

  Research Objective 1 was to describe fourth-grade students in Louisiana enrolled in regular education programs completing the LEAP assessments on age, grade level, gender, race, socioeconomic status, and geographic region. Findings indicated that the mean age of students taking the Reading portion of the LEAP was 10.30 years with 100% of the students being in the fourth grade. During the 2009 school year, Whites, as well as females, were the largest groups identified. In addition, in regards to socioeconomic status, more students (60.2%) received free lunch than any other group. Among the students taking the Reading portion of the test, the largest group of students (24.4%) were residents of the South Central North region which includes the state capital.

- Research Objective 2

  Research Objective 2 was to describe fourth grade students in Louisiana enrolled in regular education programs on their Reading, English Language Arts (ELA), and Math achievement as measured by scores and sub-scores on the LEAP assessments. Findings indicate that the lowest score for both math and English was 100 (also the lowest possible score) while the highest score was 500 (also the highest possible score).

  With regard to Reading scores, the mean scaled score was 323.89, with the highest number of students achieving at the Basic level (n=19, 545; 48.7%). With English Language Arts scores, students had the highest percentages of correct items in the areas of Using conventions of
language (70.2%), and Writing (72.4%). Students’ lowest scores were in the areas of Read, comprehend and respond (57.3%), Using Information Sources (62.5%) and Style/audience awareness (68.0%). The largest number of students ($n = 19,545; 48.7\%$) were classified as having achieved at the Basic level using the state classification system. With regard to math scores, students scored highest in the area of Measurement (74.0%). Students’ lowest scores were in the area of Patterns, relations & functions (66.0%). There were two subtests (multiple-choice and constructed response). The students’ percentage of correct responses for multiple-choice test items (71.0%) was higher than the constructed-response items (55.8%). Math results also revealed that the largest number of students was classified as having achieved at the Basic level ($n = 20,559; 51.3\%$).

- **Research Objective 3**

Research Objective 3 was to determine if a relationship exists between Reading achievement as measured by the overall reading score and reading sub-scale scores on the LEAP assessment and selected demographic characteristic among fourth-grade students in Louisiana enrolled in regular education programs. Analysis of the results revealed a statistically significant correlation between Age and Reading Score ($r = -.20, p<.001$). The nature of this relationship was such that students who were younger tended to have higher reading scores.

With regard to race, American Indians made up the smallest percentage of the fourth-grade students, while Whites made up the largest percentage. There were 12,529 (31.2\%) students who paid full price for their lunch.
• **Research Objective 4**

Research Objective 4 was to determine if a relationship exists between Reading Achievement (as measured by Reading Scaled Scores on the LEAP test) and ELA and Math Achievement (as measured by scores on the ELA and Math Scaled Scores on the LEAP test) among fourth-grade students in Louisiana.

Both ELA and math scores were analyzed using the Pearson Product Moment Correlation Coefficient procedure. Significant correlations were found between the reading scores of students and their ELA scores \( r = .934, p< .01 \). In addition, significant correlations were found between students’ Reading scores and their Math scores \( r = .651, p< .01 \).

• **Research Objective 5**

Research Objective 5 was to determine if a model exists explaining a significant portion of the variance in the academic achievement (as measured by LEAP Reading Scaled scores) of fourth-grade students in Louisiana enrolled in regular education programs on age, grade level, gender, race, socioeconomic status, and geographic region.

The Reading Scaled Score model included the variables race and socioeconomic status. The three variables that entered the regression model explained 13% of the variance. The first variable, which was the interaction factor between SES and African American, explained 9.8% of the variance. Two of the variables that were included in the significant regression model (SES x race interaction and age) were found to have a negative influence on students’ performance on the Reading test of the 2009 Louisiana LEAP, and one of the variables (paid lunch status) was found to have a positive influence.
Conclusions and Recommendations

Based on the findings of the study, the researcher presents the following conclusions and recommendations:

**Conclusion One**

Fourth-grade students in Louisiana have a “moderate” level of achievement in the area of reading. This conclusion is based on the following findings from the study: The mean raw score on the LEAP reading assessment was 22.5, which is a percentage score of 62.5. Additionally, when the scores on the LEAP assessment were classified based on criteria established by the Louisiana Department of Education, 48.7% of the students were classified in the “Basic” category while only 16.5% were classified in the “Below Basic” category. Therefore, based on the criteria established for reading achievement in Louisiana, more than twice as many of the students were classified as “Above Basic” (34.8%) as those who were classified as “Below Basic.”

Examination of research from the National Assessment of Educational Progress (NAEP) regarding achievement of fourth-grade students in the area of reading indicates that almost 40% of today’s fourth graders have not attained the basic levels of reading achievement (Reading, 2009). Therefore, if the findings of this study are compared with the national statistics by NAEP, it would seem that fourth graders in Louisiana are achieving at a higher level than the national average. However, to verify this assertion, the reader would need to examine the criteria for classification as having attained “Basic” levels of reading achievement in the national study compared with the Louisiana criteria. It seems plausible that differences in the criteria may be an explanation for the appearance that Louisiana students are above the national average.
Based on this conclusion and findings, the researcher recommends that further research be conducted, which includes a sample of students from multiple states in various geographic regions of the nation and utilizes the same assessment tool and the same interpretive criteria so that a valid comparison can be made of Louisiana students with students from other parts of the nation. This would enable the researcher to determine the extent to which Louisiana fourth graders actually exceed students nationally on reading achievement.

**Conclusion Two**

The poverty level in the state of Louisiana is high. This conclusion is based on the finding that over 60% of the fourth-grade students in Louisiana public schools received free lunch. Additionally, only 31.3% of the fourth graders paid full price for lunch. Socioeconomic status for this study was measured by the students’ school lunch status as determined by the school and/or the Louisiana Department of Education.

The socioeconomic status of students in public schools is not representative of all students in Louisiana. The 2005-2009 Dataset of the U.S. Census showed that over 1.1 million children in the state of Louisiana were under the age of 18. Of these, 32.4% were between six and 11 years of age. Of the children from three to 17 years of age, 840,497 were enrolled in school. Of these, 80.3% were enrolled in public school, while 19.7% were enrolled in private schools. White children represented 56.7% of the population under age 18, and African Americans accounted for 38%. Twenty-six percent of these children lived in households listed as below the poverty level (U.S. Census Bureau, American Factfinder, 2005-2009).

The state’s private school demographic information is limited on the Louisiana Department of Education website, but it does show that “The nonpublic school enrollment for 2007-2008 was 127,315 students from 392 nonpublic schools. Nationally, 6.2 million students
(approximately 11%) in grades pre-kindergarten through 12 attend nonpublic elementary and secondary schools. The percent in Louisiana remains higher than in the nation; approximately 16% of the student population attends nonpublic schools” (Pastorek, p. 19). It is reasonable to expect that socioeconomic status of students enrolled in private schools is relatively high when compared with those in public schools. While 60% of the students enrolled in public schools have low SES based on the eligibility for free lunch, it would be reasonable to expect that this percentage would be very low for those in private schools. Therefore, if one looks at the socioeconomic status of children in public schools compared with children overall, 16% is a relatively high level of SES. If these are added to the overall database, the groups in the public schools are not representative.

Thomas and Stockton (2003) showed that “the per capita personal income in Louisiana in 1998 was only 82% of the U.S. average” (p. 1). Findings of the study showed that those students who find themselves in the lower socioeconomic status are at a distinct disadvantage of being unprepared for the challenges of modern education. Thomas and Stockton (2003) also found that “the Louisiana Department of Education …analyzed its Student Information System (SIS) data from 1997-2001 in grades K-12 and found that male students were more likely to be retained than female students, and students on free lunch were twice as likely to be retained as students not receiving any food services” (p. 8). The study found that the retention rates for fourth-and eighth-grade students were more than three times those of other students (Thomas & Stockton, 2003). A unique finding of their study was that “African-American students receiving reduced lunch had significantly lower retention rates than those on free lunch or those not receiving any food services in 2000-2001” (p. 8).
The family income of students often plays a major role in how well the students do in school. It is often suggested that the inability to purchase extra study materials has an effect on the achievement level of the student. Children from low SES status households are being left behind because they don’t have resources in the home to allow them to compete when they get to school. In the past, the National Assessment of Educational Progress (2008) has not provided “information on household income but does collect data on a child’s participation in the school's free and reduced price lunch program, which are the data used to determine socioeconomic status” (p. 4).

This information leads the researcher to believe that the large, low SES community in Louisiana is a contributing factor in low achievement. This is based on the finding that students in this study receiving free lunch had significantly lower scores on the reading exam. Part of this problem could stem from the students having low motivation. Many of these students don’t see a future because they don’t have appropriate role models to follow because a number of the parents have low educational skills. This could cause the students to feel that there is no use in expending the extra effort to achieve because they haven’t been shown what they believe is a realistic payoff.

The researcher recommends that there should be a move to reduce class sizes for the lower grades where there are high numbers of lower SES students. This would allow these students more personal attention at the first-second-and third-grade levels to find their weaknesses and strengths—in other words, the teacher needs to meet the students where they are and work from that point. Hopefully, this would bear fruit with higher-achieving students by the time they reach the fourth grade.
Even more needs to be done to get books and other educational materials into the hands of students who are mainly from minority backgrounds. Programs can be developed to close this gap in achievement. One such program is the Reading to the Heart Program funded by the U.S. Department of Agriculture through the Louisiana State University Agricultural Center’s 4-H Youth Development Department. The objective of the program is to improve literacy and learning skills among fourth-grade youth by promoting a variety of curriculum development, learning, and participatory activities among participants. Reading development is a major goal of the program with opportunities provided to engage youth in reading grade-level books, preparing book summaries, and developing reading portfolios. There is also assistance from parents, guardians, volunteers, and teachers, and involvement in community and school literacy programs. Throughout the program year, students are given books to read as a way of enhancing their literacy skills.

The researcher further recommends that the Reading to the Heart program be carefully evaluated to determine the influence it has on the achievement level of students. It is further recommended that a longitudinal study be conducted where these students are assessed every two years after fourth grade to evaluate their progress. This longitudinal data could serve as the basis for the permanent integration of this or similar programs into the school systems throughout the state.

**Conclusion Three**

African-American students in the fourth grade in the state of Louisiana had lower performance than any of the other races on the Louisiana Educational Assessment Program (LEAP) exam. This is based on the following finding: The mean reading scale scores for Black
students was 323.55. African-American students not only had the lowest reading scores but were also shown to be significantly different from the other four races. African-American students’ reading scores were nearly 17 points lower than American Indians, whose scores were next to lowest. Research by Guthrie, Coddlington, and Wigfield, (2009) showed that motivation or lack thereof is one of the major areas that needs to be addressed to improve the illiteracy problem. They found that the “intrinsic motivation for reading can be defined as the enjoyment of reading activities for their own sake, which is consistent with the formulation in self-determination theory. Intrinsically motivated reading consists of text interaction for enjoyment, to satisfy curiosity and to gain the rewards of vicarious adventure, or gaining new knowledge that may be challenging” (p. 322). This appears to be what is lacking with many young African-American students. They don’t seem to recognize reading as an activity “just for the fun of it.” There are five reasons students gave for not getting more involved in reading, “In interviews, students claim the following: (a) the school texts are not interesting…, (b) their friends do not read school materials frequently…, (c) the tasks are irrelevant to them…, (d) peers they identify with are not proficient readers…, and (e) reading conflicts with their social goals and norms” (p. 324).

Coleman (1966) asserted that a student’s background was greater than anything that goes on within schools (p. 1). Coleman further stated that “the factor of race or ethnicity is closely associated with that of poverty as a predictor of achievement” (p. 4). In ethnic minorities, such as African Americans, according to Ladson and Billings (1995), a history of discrimination is shown to be a reason for the opposition these students have toward school activities (p. 324). Biancarosa and Snow (2006) found that stakeholders must look at the complete picture if there is to be improvement in literacy of young children. They also found that self-direction is effective
in improving literacy skills. Giving students the opportunity to decide what they are interested in reading is an important first step toward improved reading skills (p. 16).

Parental involvement is often lacking in the education of low-socioeconomic children. Dodici, Draper, and Peterson (2003) stated, “It appears that the quality of parent-child interactions, even at very early child ages, is related to early literacy skills” (p. 132). Too often, in low socio-economic households parents appear to be severely lacking in basic educational skills themselves and are therefore not able to provide much help to their children. Flowers (2007) found that there is a vital link between the involvement of the parents in the child’s education and the success of that child. There is still this question mark though when it comes to children from certain backgrounds. “Although extensive research shows the positive benefits of parental involvement on students’ academic achievement…what is relatively unknown is which particular types of involvement best serve African American children in improving their reading skills” (p. 426). President George W. Bush believed that American schools could do better and showed his deep belief by signing the No Child Left Behind Act into law. He stated that “too many of our neediest children are being left behind, despite the nearly $200 billion in Federal spending after the passage of the Elementary and Secondary Education Act of 1965 (ESEA)” (p. 1). A study by Costello, Keeler, and Angold (2001) showed that three times as many African-American children grow up in low socioeconomic status households.

Based on this conclusion, the researcher recommends that programs be designed specifically to meet the educational needs of minority children at the lower grade levels. Some ideas include smaller class size, putting more efforts in identifying what their educational needs are, developing tutoring programing in the schools to provide additional reading help, making books available to give to students instead of just allowing them to read and turn them back in to
the teacher. Additionally, school districts could develop school-based programs to put more reading materials into the hands of minority children that will capture their interest, such as the Reading to the Heart program discussed earlier. Millions of dollars are spent each year in the state of Louisiana for standardized testing. That money might be better spent on salaries for more and better teachers. Therefore, the researcher also recommends that at the lower grade levels, less emphasis should be placed on standardized tests and more emphasis placed on the students learning the material. It is documented that culture and environment play a role in a student’s success or failure on standardized tests. More should be done to understand the home life of these minority students. One thing that could be done is require homeroom teachers to make home visits in order to get a better understanding of where these students come from and how they live. Another thing that could be done is have education majors participate in pre-service diversity internships, where these college students would spend time in schools with diverse populations to help them become comfortable with different cultures and races. There could also be in-service programs where teachers could spend a semester in another school where they would teach students of other races as a way to build experience in diversity.

**Conclusion Four**

African-American status and SES interact in their influence on Reading Achievement. When interaction between African American status and SES was included, African-American status ceased to be a meaningful explanatory factor in Reading Achievement. This is supported by the finding that three variables explained 13% of the variance in the regression model. These variables were the interaction between African American racial status and SES, age, and paid-lunch status. The minority status of students has been shown to have a damaging effect on their academic achievement. Results of this study indicate that the influence of African-American
status differs at the different levels of SES. Willhelm’s (1986) research has shown that a higher proportion of the African American community tends to be at the lower socioeconomic levels, and while it is true that African Americans score lower on standardized tests, it’s not just a matter of race, it’s also a matter of socioeconomic status. “Family disintegration transforms…the very structure of family life; it initiates the collapse of the patriarchal kinship system and the emergence of the matriarchal family which, in turn, brings in its wake such social pathologies as higher crime rates, increased rates of school dropouts, lower achievement aspirations, greater drug dependency, higher unemployment, and, subsequently, lower incomes that, thereafter, relegate more and more Blacks into the ranks of poverty” (p. 205).

Thomas and Stockton (2003) observed that once you move beyond race and ethnicity, socioeconomic status is shown to be one of the major reasons for a lack of achievement in young children. “Since Coleman’s…landmark study on Equality of Educational Opportunity, socioeconomic status has been seen as a strong predictor of student achievement. Coleman asserted that the influence of student background was greater than anything that goes on within schools” (p. 1). House and Williams (2000) also found that “Socioeconomic status (SES) refers to individuals' position in a system of social stratification that differentially allocates the major resources enabling people to achieve health or other desired goals. These resources centrally include education, occupation, income, and assets or wealth, which are related to each other” (p. 83). Research consistently shows that African-American children are more likely to fall into the lower socioeconomic status than most other racial groups. Of the factors that influence reading achievement, the high incidence of illiteracy in the low-socioeconomic population has several distinct causes that tend to exist more in the minority population. The most profound is the lack of family structure in many minority households, according to findings from a study conducted
by Willhelm (1986). This report indicated that over 50% of Black births in 1979 were to out-of-wedlock parents, compared with 38% in 1970 (Willhelm, 1986). Edelman (1985) stated that low-socioeconomic status is especially difficult for certain racial groups.

Based on this conclusion and these results, the researcher recommends that further research be conducted where SES is held constant and then measure for effects of race. This would be done by only looking at those students who received free lunch. Geographic location could also be looked at separately to see if there is a difference in the achievement levels between rural and urban students.

**Conclusion Five**

Students performed at a moderate level on ELA and Math in relation to the rest of the United States and especially the South. This conclusion is based on the following findings of the study. There were a total of 40,100 students taking the ELA and math portions of the test. The mean score for the ELA portion was 336.48 ($SD = 42.61$). The category in which the largest number of students were classified was at the Basic level ($n = 19,545; 48.7\%$). The mean score for the math portion of the test was 334.96 ($SD = 46.41$). The category in which the largest number of students were classified was also at the Basic level ($n = 20,573; 51.3\%$). Potential scaled scores on the English and math portions of the GEE range from 100 (the lowest possible score) to 500 (the highest possible score) divided into five categories.

Upon analyzing both math and English scores, the researcher recognized that the majority of students in the state of Louisiana scored at the middle range (Basic) with more students scoring below this level (Approaching Basic and Unsatisfactory) than those scoring above this level (Mastery and Advanced). Research supports the idea that there is a major problem with the educational system. Biancarosa and Snow (2006) stated that students who graduate on time with
a regular diploma is down to 70%, with African-American and Latino students having rates that are a full 10% lower. Recent policies from the federal and state levels are looking at “eliminating student achievement gaps in elementary schools… to promote the acquisition of knowledge and skills linked to later reading success” (p. 424).

According to the 2009 NAEP National Report card, nearly all of the states are showing poor results at the fourth-grade level in reading achievement. “The average score of fourth-grade students in Louisiana was 207. This was lower than the average score of 220 for public school students in the nation” http://nces.ed.gov/nationsreportcard/pdf/stt2009/2010460LA4.pdf. The State Snapshot Report shows that the national achievement-level percentages show in its overall results that 34 percent of fourth-grade students scored below basic, while 49 percent of Louisiana students scored below basic, which is significantly different from the state’s LEAP results. Therefore, there appears to be a problem in comparing the LEAP scores to the NAEP scores.

Gewertz (2010) found that “Among states, Kentucky alone saw increases in reading scores at both grade levels since 2007. Rhode Island and the District of Columbia saw scores rise only at the fourth grade level, and seven states–Alabama, Connecticut, Florida, Hawaii, Missouri, Pennsylvania, and Utah–saw increases only in eighth-grade” (p. 4). Hilliard (2004) stated that there is the idea that you can “put people, of whatever age or station, into a single ordered line of ‘intelligence’ or ‘achievement’ like numbers along a measuring tape: 86 comes after 85 and before 93” (p.1). People are just too complex for this to ever be done. He found that the purpose of assessment has left off achievement and leaned more toward a system of ranking. Students tend to become the losers when assessment is used in this fashion. Hilliard said the appearance of an equity problem arises in education, especially for minority cultural groups, when this is the case. It is in this situation that students “are the canaries in the miner's cap
signaling deep problems with the whole enterprise of mass produced standardized testing and assessment, a paradigm problem.” (p. 3)

The researcher concludes that a possible reason for minority students scoring more poorly is that standardized tests may tend to be culturally biased. The designers of the instruments could take this into account when constructing these instruments for public school students.

**Conclusion Six**

Reading ability influences ELA and Math Achievement. This is based on the findings that there is a significant relationship between Reading Achievement and ELA and Math scores. There were significant correlations found between the reading scores of students and their ELA scores ($r=.934$, $p<.01$). In addition, significant correlations were found between the reading scores of students and their Math scores ($r=.651$, $p<.01$). The implication of these correlation values is that students who read well have a better chance of doing well in other schoolwork. Students who did better on Reading also did better on Math, and students who did better on Reading also did better on ELA. Even though Reading is not assessed separately at the higher grade levels, ELA and Math are continually assessed. Therefore, reading skills continue to have a major impact on other areas throughout the school years.

The researcher recommends that specific programs be implemented in schools to improve reading ability and interest. Some of these programs include providing students with extra reading materials to supplement the resources of elementary school libraries. Programs are available like the LSU AgCenter’s Reading to the Heart program that provides books to children. Several other programs designed to improve students’ achievement include: LA’s BEST, Reading is Fundamental, Read 180 and Teen Trendsetters. Saddler and Staulters (2008) looked at the Reading Partners program as one solution to the literacy problem. This is an after-school
literacy program that provides tutoring for fourth-grade students. The program began as “a study conducted by university faculty who investigated the effects a structured after-school program could have on the reading performance of poor readers in the intermediate grades” (p. 204).

LA’s BEST, the after-school enrichment created in 1988, serves some of Los Angeles’ most vulnerable children by helping with homework and providing learning activities that boost academic skills in reading and math. The Reading is Fundamental (RIF) program from the nation’s largest children’s literacy nonprofit organization, promotes reading by providing free book and literacy resources to children and also by working with the students, their parents and community members. Also the Read 180 program is a comprehensive system of instruction that is designed to improve reading achievement for struggling readers in grades 4-12. This program has an intervention component to keep the students engaged, improve teacher effectiveness and improve leadership skills in the students.

Teachers can take advantage of these programs in order to get more books into children’s hands and also allow children to pick the books they are most interested in and to keep the books after they have been read. This ownership in the book could cause the child to turn to the book more often to learn even more about the characters. Allowing the teacher more time to read to the class could also provide a change in the school day that would be helpful. This would give the students more variety of topics to become interested in. The teacher could have guests come into the class to read to the class as well. One way to make this more interesting to the students is to have people come with whom they are familiar, such as local athletes, politicians, and others the students may know from media or other venues. Providing tutors for students who appear to be struggling in reading will provide more one-on-one attention, which could be helpful to the students. The students may feel more comfortable working on an individual basis than being put
in the spotlight where they are uncomfortable and not willing or able to read at their best. In addition to these opportunities to help the students, the high schools and/or colleges in the area can allow their students to earn service-learning hours by volunteering to read in elementary school classrooms. Whatever it takes to improve the reading skills of students should be looked at as a possible strategy to improve reading achievement.

**Conclusion Seven**

The minority population in public schools is high in Louisiana. This conclusion is based on the data that show that 48% of the state’s public school students in fourth grade were African-American, 47% were White, and 3% were of other minority races (http://nces.ed.gov/nationsreportcard, p. 1). Therefore, the traditionally recognized minority race in the state of Louisiana actually makes up the plurality of students in regular education programs in public schools.

This is not representative of the population in the state. The 2005-2009 Dataset of the U.S. Census showed that over 1.1 million children in the state of Louisiana were under the age of 18. Of these 1.1 million, white children represented 56.7% of the population under age 18, and African Americans accounted for 38%. (U.S. Census Bureau, American Factfinder, 2005-2009). This finding supports the idea that a considerable percentage of White students in the state are not attending the state’s public schools. This leads the researcher to believe these White students are either enrolled in private schools or are being homeschooled.

A higher percentage of students enrolled in private schools in the state are White and probably from higher socioeconomic levels. Certainly parents from higher SES status have a greater opportunity to enroll their children in private schools, while those from lower SES status can’t afford to enroll their children in private schools.
The researcher concludes that this is why the majority race in the state makes up less than 50% of the students in public school fourth-grade classes. The researcher therefore recommends that there should be a policy change within the state. The state should implement requirements that all students be tested using the LEAP assessment, including those students enrolled in public schools, private schools, parochial schools, and home school.

**Conclusion Eight**

Reading ability differs by geographic region of the state. This finding is supported by the ANOVA data which showed that region four, which consists of southwest Louisiana, had higher reading ability than any other region of the state. The findings also showed that region eight, which included southeast Louisiana, had significantly lower reading scores than any other region of the state.

The researcher recommends that further research be conducted to determine specific differences between more successful and less successful schools. If these differences are found to be school-based, there should be attempts to make appropriate changes. This could include providing a standardized curriculum across the regions. If the changes are found to be a condition of SES status, it will take efforts from the state level, maybe even from the governor, to enhance the economic development efforts in the region to improve the schools.

**Conclusion Nine**

In the ELA area, the highest performance was in Writing. This finding is supported by the mean score of 8.69, with 72.4% correct responses, while the lowest performance was Using Information Sources, which had a mean score of 22.50 and 62.5% correct responses. This seems to be a contradiction, because logic would say if one had low reading skills, they would also have low writing skills. One possibility is these students do a considerable amount of
writing activities and practice at school, and they like to write. Another possibility is that the writing portion of the test was considerably easier than the reading section or that this section of the test is not actually measuring what it should. A question may be asked whether the students were tested using a standardized test or if they were asked to write an essay.

The researcher recommends that further research be done to get a better assessment of reading ability and writing ability. After further research, there may be a need to actually change the instrument.
REFERENCES


The Mississippi legislature the joint committee on performance and expenditure review. (December 13, 1994). *Report #319 Executive Summary for an evaluation of Mississippi's Assistant Reading Instructor Program*, Retrieved February 3, 2011, from http://www.peer.state.ms.us/319.html


U.S. Census Bureau, American Factfinder. Retrieved May 25, 2011, from http://factfinder.census.gov/servlet/STTable?_bm=y&-context=st&-qr_name=ACS_2009_5YR_G00_S0901&-ds_name=ACS_2009_5YR_G00_&-CONTEXT=st&-tree_id=5309&-redoLog=false&-geo_id=04000US22&-format=&-_lang=en


Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research projects using living human as subjects, or samples, or data obtained from human directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This form helps the PI determine if a project may be exempted, and is used to request an exemption.

- **Applicant:** Please fill out the application in its entirety and include the completed application as well as parts A-E listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at http://www.lsu.edu/screeningmembers.shtml

- **Complete Application includes All of the Following:**
  (A) Two copies of this completed form and two copies of part B thru E.
  (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
  (C) Copies of all instruments to be used.
  (D) The consent form that you will use in the study (see part 3 for more information)
  (E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training link: (http://php.shtaining.com/users/login.php)
  (F) IRB Security of Data Agreement: (http://www.lsu.edu/irb/IRB%20Security%20Agreement.pdf)

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3) Project Title: The Influence of Selected Demographic Characteristics on the Reading Ability of Fourth Grade Students in Louisiana

4) Proposal? (yes or no) No  
If Yes, LSU Proposal Number: [Blank]

Also, if you, either:  
□ This application completely matches the scope of work in the grant  
OR  
□ More IRB Applications will be filed later

5) Subject pool (e.g., Psychology students): Public School Students in Louisiana  
*Circle any "vulnerable populations" to be used: (children <18); the mentally impaired, pregnant women, the ages, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature: [Signature]  
Date: January 31, 2011

**I certify my responses are accurate and complete. If the project scope or design is later changed, I will resubmit for review. I will obtain written approval from the IRB office representative of all non-LSU institutions in which the study is conducted. I also understand that if it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted  
Not Exempted  
Category/Paragraph 14

Reviewer: Mathews  
Signature: [Signature]  
Date: 2/12/11
Johnny, the youngest of eight children, was born in Pope, Mississippi, on November 19, 1964, to the union of Mr. and Mrs. Elzie Morgan, Sr., and is a product of the Panola County School System. He attended Pope Elementary-Jr. High School and South Panola High School. After graduating from South Panola High School, he immediately entered Mississippi State University as an agriculture communications major. While a student at Mississippi State he produced the state 4-H radio program, Take Two for the Mississippi Cooperative Extension Service after class, and worked nights as a radio announcer for WSMU-FM radio station in Starkville, Mississippi. Upon completion of the Bachelor of Science degree, he returned home to work as a parts salesman at the local John Deere dealership. After two years, he entered graduate school at the University of Mississippi majoring in broadcast journalism and public relations. While attending the University of Mississippi, he worked full-time as a news director/salesman at Miss 98 radio station in Oxford, Mississippi. Upon graduation, he worked as a sales representative for the Pillsbury Company before accepting a position with the LSU AgCenter as a media relations specialist. He has been employed with the LSU AgCenter since 1998.

On August 30, 1986, he married Candace Davenport and to this union was born three daughters, Audrey, Andriette and Shanece.

In the fall of 2006, he entered the doctoral program in the School of Human Resource Education and Workforce Development at Louisiana State University and will have the degree conferred on August 5, 2011.

His philosophy is, —I will take what I can get, until I get what I want