ABSTRACT

An Examination of the Relationship of Accelerated Reader Implementation, Secondary
Reading Programs, and TAKS Reading Pass Rates for Ninth Grade Students in Selected
Central Texas School Districts

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Accelerated Reader (AR) is a reading management program designed by
Advantage Learning Systems, Inc. to increase students' reading motivation and to
increase reading comprehension skills. The AR program is based on the premise that
students will take a test to determine their reading level, read books on their designated
level, and then take quizzes on the books they have read. Students are awarded points for
good quiz grades and may then cash in points for rewards. This research studied ten ninth
grade student populations of 175 or less. Five of the schools in the study implemented the
AR program, and five did not. Schools that used the AR program were closely matched
with schools that did not use AR based on ninth grade student population, demographics,
and socioeconomic status. Ninth grade Reading TAKS pass rates were compared between
schools using AR and those who did not. A Wilcoxon Rank Sum test indicated that the
AR program did not make a difference in Reading TAKS scores. Campus representatives
from each of the ten schools chosen for the study were interviewed about the school's

ninth grade reading program. Questions were asked about additional reading instruction for struggling readers, content area reading emphasis, English classroom reading strategies, and incentives for extra reading. No specific strategy or program emerged as key in raising reading achievement on the Reading TAKS test.

An Examination of the Relationship of Accelerated Reader Implementation,
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Students in Selected Central Texas School Districts

by

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A Dissertation

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CHAPTER ONE

Introduction

In colonial times, literacy was seen as an essential requirement for capable and productive citizens. Since that time, it seems that literacy- reading more specifically- has become less of a mandate and more of an option as more and more illiterate students have continued into an illiterate adulthood. In fact, a 1992 report of the National Assessment of Educational Progress (NAEP) concluded that although many students at the 4th, 8th, and 12th grade levels had mastered basic reading competencies, very few had reached the level that would be required in the 21st century workplace. A 1992 National Assessment of Adult Literacy found that 21 to 23 percent -- or some 40 to 44 million of the 191 million adults in this country -- demonstrated skills in the lowest level of prose, document, and quantitative proficiencies (Kirsch, Jungeblut, Jenkins, & Kolstad, 1992).

More than ever, the American people are demonstrating concern for improving the literacy levels both of students in school and of adults (Binkley & Williams, 1996). In the 1980s, more studies were done regarding the process of reading and the best strategies for teaching students to read. In 1983, *Becoming a Nation of Readers,* a report compiled by the National Academy of Education, the National Institute of Education, and the Center for the Study of Reading at the University of Illinois, responded to the discussion of how to improve schools and reading instruction. The same report presented research regarding human cognition, environmental influences, and the studies of classroom practices and their impact on reading achievement. In 1998, *Preventing Reading Difficulties in Young Children* suggested an integrated approach to reading and

intervention based on multiple measures was key. Also at this time, the Reading

Excellence Act was passed. The Reading Excellence Act is a federal bill that supports

scientific research in reading instruction, providing grants to states that want to improve

the reading skills of their students. The National Reading Panel presented their findings

in 2000 with *Teaching Children to Read*, a meta-analysis of research on the best

strategies for teaching reading.

      With the adoption of the No Child Left Behind Act in 2000, there has been more

of a push to substantially improve the reading abilities of students. Reading First, a

program that is part of NCLB, reflected the concern of making sure students read well by

the end of third grade. Under Reading First, states could receive federal funding to

improve reading achievement. Early Reading First, specifically for preschool children

from low income families, supported the same mission.

      With the advent of new laws encouraging reading achievement, and as a result of

state tests that require students to comprehend their reading, new reading programs and

strategies were created, implemented, and adopted in America's schools in an effort to

minimize the number of struggling readers found in classrooms and as a means for

improving the quality of education provided. Distar (Sexton, 1989), Saxon Phonics

(Saxon, 2008), and Voyager Reading (Frechtling, Zhang, & Silverstein, 2006), all

scripted, can be used as stand alone reading programs. The Three-Tier Reading Model,

developed through a collaboration between the University of Texas and the Texas

Education Agency, was published in 2003. This model identified struggling readers

before they fall behind and consisted of Tier 1 of 90 minute whole class instruction, Tier

2 with 30 minutes of supplemental instruction, and Tier 3, providing 30 additional

minutes of more intensive and individualized reading instruction each day (University of Texas at Austin, 2007). Guided Reading (Iaquinta, 2006), decodable books (Mesmer, 2005), and Van Allen's Language Experience (Dorr, 2006) are all strategies that are used to supplement reading programs and assist in reading instruction through teacher facilitation. In the upper elementary and middle grades, basal readers combine pre-selected texts of varied genres for students to read, and provides teachers with assessments and activities to accompany the books. Intervention strategies such as Reading Recovery (Reynolds & Wheldall, 2007), Book Buddies (Meier & Invernizzi, 2001), and Early Intervention in Reading (Pikulski, 1994) attempt to improve students' reading skills before they get too far behind.

Accelerated Reader, a computer program that assesses reading comprehension through a series of multiple choice questions, is another widely used form of reading instruction. With this program, students are given a placement test to determine their reading level, and are then allowed to check out books in their school library that match their reading level. After reading the book on his or her own, students take quizzes on the book. Students may earn points and ultimately prizes provided by the school or another source for an accumulation of points. The presence of an AR program, without actual daily usage by students, is not necessarily helpful in improving reading comprehension and vocabulary (Johnson & Howard, 2003).

The goal of reading is comprehension. Comprehension is both a product and a process, something that requires purposeful, strategic effort on the reader's part-anticipating the direction of the text, seeing the action of the text, contemplating and then correcting whatever confusions they encounter, and connecting what's in the text to

what's in their mind to make an educated guess about what's going on (Beers, 2003). As early as 1915, Thorndike established a "script" for comprehension by selecting passages and writing questions about the passage, much like what is still used today as the basis for the reading portion of standardized tests. Durkin asked, "What do teachers do to teach comprehension?" in the 1970's. She found that although teachers were testing comprehension, they were not teaching it (Durkin, 1978). The question for this study is whether the use of the Accelerated Reader program affects reading comprehension TAKS scores. This study focuses on the relationship between the use of Accelerated Reader (AR) and reading comprehension passing rates on the ninth grade Reading Texas Assessment of Knowledge and Skills (TAKS).

Context of the Problem

High stakes testing is used most prominently for instructional improvement. It is also used for tracking students, and for accountability purposes. These state mandated tests, although they may differ by state, are usually multiple-choice in nature. Most multiple choice tests are seen as reliable, although often their validity may be challenged. In Texas, these tests are administered to students in the form of TAKS (Texas Assessment of Knowledge and Skills). The TAKS was first implemented for the 2002-2003 school year. Students are tested in reading for grades 3 through 9, in writing at grades 4 and 7, in English Language Arts at grades 10 and 11, in math for grades 3 through 11, in science at grades 5,10, and 11, and social studies in grades 8, 10, and 11 (TEA, 2007). Any researcher has access to TAKS scores, as this data is archived and available to the public. The TAKS Reading test measures reading comprehension, and it

is reading comprehension scores that were compared to the use of Accelerated Reader for this study.

Throughout the years, TEA has reported on the validity and reliability of the performance-task scoring process. Reliability has been expressed in terms of reader agreement and correlation between first and second readings. Validity has been assessed via validity packets composed of responses selected and examined by TEA staff (Technical Digest, 2004-2005). Because the TAKS test provides scores that serve as a proxy for direct measurement of underlying achievement levels, their scores contain some amount of error, and test reliability quantifies this error. Internal consistency reliabilities for TAKS range from .81 to .93. Criterion-related evidence of validity for TAKS was provided in a study conducted by TEA and PEM. Results of their study indicated that the TAKS scale is comparable to the performance level for ACT and the standard performance level for the SAT (Technical Digest, 2004-2005).

A number of factors can influence the supposed reliability of the TAKS test. Under No Child Left Behind, scores on statewide exams have become the single yardstick by which school success is measured. Struggling schools are penalized. Fudging the results to help a school barely survive or cheating on exams has become common. In 2005, after years of rock bottom test scores in Houston, scores shot up, and 95 percent of the eleventh graders passed the state science test. That same year, TEA hired a company called Caveon Test Security to ensure the state's standardized test results were valid. A host of irregularities were found at the Houston school. In a 2006 poll, 60% of students admitted to have cheated on an exam at least once (Tyre, 2007).

Not only are scores questioned because of security or cheating issues, but alignment with NAEP, the Nation's Report Card, has also caused some to question validity of TAKS scores. One study found that state tests varied greatly in judging students proficient—between 60 and 80 points—when placed on the NAEP 500 point scale (Cavanagh, 2007). In addition, the term "teaching to the test" has become popular for teachers in schools where high scores are what counts. Teachers are becoming less responsive and adaptive to students' literacy needs as a result of this and are focusing more on skills management based on test objectives (Assaf, 2006).

Despite the debate over the validity and reliability of the TAKS test and of state standardized tests in general, this researcher chose to use TAKS pass rates for the study because of the reading objectives tested, TAKS' measure of reading comprehension, and the availability of the TAKS scores.

According to the Texas Education Agency's website description of the ninth grading reading TAKS test, the following is an explanation of the importance of this assessment.

> The ability to read effectively is essential for all students. As students move from grade to grade, reading skills are critical for academic progress. Students who cannot read well will struggle to succeed not only in English language arts but in social studies, science, and mathematics as well. Good readers have more opportunities available to them throughout their lives-in education, employment, and personal enrichment—than those who have not learned this fundamental skill (TEA, 2007).

Do the reading programs and strategies adopted by school districts and by individual school campuses help to improve the pass rates of students who take the ninth grade Reading TAKS? This study is specifically concerned with ninth grade reading pass rates from the 2007 administration of the TAKS in selected Central Texas school

districts, with any relationship between the implementation of the AR program and these TAKS pass rates, and with the differences between secondary reading programs for selected high schools.

Statement of the Problem

Accelerated Reader is a widely purchased supplemental reading program used in thousands of schools across the country as well as in Texas. Most research for AR has been on readers in kindergarten through seventh grades (Facemire, 2000; Holman, 1998; Johnson & Howard, 2003; Knox, 1996; Melton, et al,, 2004; Morse, 1999; Nunnery, et al., 2006; Pavonetti, et al, 2000; Spradley, 1998). However, very little research done on the Accelerated Reader has been peer reviewed (Trelease, 2004). Very little objective information can be found regarding the effectiveness of the Accelerated Reader program when used for high school students. Because so many high schools have purchased the program, and because schools rely on this program to increase their students' reading test scores, a study should be done to determine the relationship between the pass rates of the Reading TAKS and the AR program.

Purpose of the Study

One purpose of this study is to compare the TAKS ninth grade Reading TAKS pass rates of selected Central Texas schools who implement the AR program with pass rates of schools that do not implement the Accelerated Reader program. Another purpose of this study is to compare ninth grade reading programs in the schools selected for this study. This information about the reading programs was collected from campus representatives.

Research Questions

- Is there a difference in ninth grade reading TAKS pass rates for schools that use the Accelerated Reader program for ninth grade as compared to those who do not?

  o How is the Accelerated Reader program implemented in schools that use the program?

  o Is there a relationship between AR and ninth grade reading TAKS pass rates?

- How is reading taught at the secondary level in schools selected for the study?

  o What strategies are used within the English classroom to improve reading skills and comprehension for ninth graders?

  o Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills?

  o Is there a variance among reading programs for ninth graders?

  o Is there a relationship between reading programs and ninth grade reading TAKS pass rates?

  o What is the role of AR in the overall reading program in schools that use AR?

Significance of the Problem

Programs like Voyager, Saxon Phonics, Reading Recovery, and Distar compete with well marketed computer software reading programs like Accelerated Reader on a daily basis. Except for AR, each of these programs includes the appropriate materials necessary for teaching students phonics, comprehension, and writing skills- all

components of a complete reading program. Accelerated Reader, however, is not meant to be stand alone reading program (Chenoweth, 2001). Instead, AR is a reading management program (Krashen & Rogers, 2003). Originally designed with the goal of increasing recreational and independent reading by students in addition to the required reading already being done within the classroom, the AR program is now the flagship program for many high school campuses for reading instruction. Reading teachers and pull out programs providing additional help for struggling readers often end with middle school (Guth & Heaney, 1998). Many teachers on the secondary level assume that students should already be skilled readers by the time they enter high school, and therefore do not focus on teaching reading skills.

Methodology

Ninth grade populations were chosen from ten purposefully selected schools in Central Texas. Representatives from each selected high school were contacted by email or telephone to learn whether or not they implemented the Accelerated Reader program for their ninth grade students. Responses to this question came from curriculum directors, principals, English teachers, and English department heads. After determining which schools implemented AR, ten were chosen based on their similarity in demographics, population, socioeconomic status, and location. Among the ten schools chosen, five of the schools implemented the AR program, and five did not. Because many schools with larger ninth grade populations were found not to participate in the Accelerated Reader program, schools with ninth grade populations of 175 or less were chosen for this study. Pass rates from the ninth grade Reading TAKS from 2007 were obtained from the Texas Education Agency (TEA) website. A Wilcoxon Rank Sum Test was used to compare pass

rates of AR schools with those of schools not implementing the AR program. Assistance from the Baylor Statistics Department was obtained for this comparison. Campus representatives for each high school were interviewed to identify all reading program components for the ninth grade students and the specifics of AR implementation. Interviews were conducted by phone and by email.

Participants

The sample for this study was ten different ninth grade populations. Schools chosen for the study were located in Central Texas and had ninth grade populations of 175 or less. These schools were chosen partly due to their convenience in location. Ninth grade students were of particular interest because research has indicated that ninth grade is a key predictor of how students will fare for the rest of their high school career (National High School Center, 2007).

Data Analysis

After the 2007 pass rates had been collected for each of the ten schools chosen, the pass rates were compared. Each of the five schools that implemented the Accelerated Reader program was matched with a school that did not implement the Accelerated Reader program based on ninth grade population, socioeconomic status, and demographics. The reading comprehension scores were compared between the five sets of schools to determine if a relationship existed between the ninth grade Reading TAKS pass rates and Accelerated Reader implementation. A Wilcoxon Rank Sum test was done to demonstrate the comparison.

The content of the school interviews was used for three purposes: to further interpret the Reading TAKS pass rates, to determine if other reading program components may have had an effect on pass rates, and to analyze the way reading is taught on the secondary level, more specifically for ninth grade in small schools.

Definition of Terms

For the purposes of this study, the following terms must be defined.

- TAKS- Texas Assessment of Knowledge and Skills. Beginning in the 2002-2003 school year, Texas began administering this state test to measure statewide curriculum.

- Accelerated Reader- Developed by Advantage Learning Systems and Judith and Terrance Paul in 1986, the Accelerated Reader Program is a computer based reading program available for k-12, although most sites using the program are elementary and middle schools. The program is used in over 55,000 schools across the country.

- TEA- Texas Education Agency. The TEA is the administrative unit for Texas public primary and secondary education.

- TEKS- Texas Essential Knowledge and Skills. The Texas learning objectives allotted for each content area and each grade level. The TAKS assesses the TEKS.

- NAEP- National Assessment of Educational Progress, otherwise known as the Nation's Report Card. It assesses student achievement in grades 4, 8, and 12. It is the only nationally representative and continuing

assessment of what America's students know and can do in various

subject areas (NAEP, 2007).

Limitations of the Study

There were several limitations of this study. They are as follows:

- It is possible that there were ninth grade students in the study who had experienced the AR program before their ninth grade year. This would be one limitation in the study because if students had experienced the program, their previous AR experience may have affected their ninth grade TAKS pass rate, even if they were attending a school that did not implement the AR program for ninth graders.

- By the same token, it is possible that a student may have experienced the AR program for the first time as a ninth grader. In this case, it is possible that the student's participation was limited due to unfamiliarity with AR. Therefore, this could have provided the study with an inadequate representation of the effects of the AR program on test pass rates.

- Another limitation was the percentage of ninth grade students in an AR school that actually used the program. Some schools required AR for all students, and others made it optional or used AR quizzes as part of their English curriculum. Also, although AR may have been required by some schools, this does not mean that all students participated and earned their points as expected.

- Differences in school-wide reading programs in ninth grade and prior to ninth grade may have influenced Reading TAKS pass rates more than Accelerated Reader.

- Middle school reading programs, particularly of the eighth grade, have an impact on ninth grade Reading TAKS pass rates. A student's reading and skill ability is cumulative. Reading TAKS pass rates will not solely be affected by whether a school does or does not implement the Accelerated Reader program.

- "Test Wise" students who have the ability to use the format of a standardized test like the TAKS would be a limitation to the study. These students apply guessing strategies, use cues in the items, use time effectively, or implement error avoidance because they have been acclimated to test-taking situations (Farstrup, Samuels, & Samuels, 2002).

- The number of schools actually selected for the study was small, and therefore the results are not generalizeable.

- Finally, differences in school implementation of the Accelerated Reader program may have had an affect on the results of the study.

Summary

Too often, educators react to the reading process as if they were unwise ship captains facing an iceberg at sea. They tend to address only the portion that is visible, while ignoring the huge mass of ice that exists below the surface of the water (Reven, 2007). In much the same way, choosing a program like Accelerated Reader as a

complete reading program and choosing to place so much emphasis on its quiz scores is unfair to the student, whose real reading needs are larger than what any multiple choice questions can dictate. It is important that teachers recognize their own strengths and weaknesses in teaching reading and not simply follow a program because it exists and limits their need for providing reading instruction. Many schools count on the Accelerated Reader program to drive up their test scores and claim any improvement in scores is strictly as a result of the AR program. It is imperative, therefore, to investigate the efficacy of the Accelerated Reader program through this study and to determine whether or not its implementation has an effect on ninth grade Reading TAKS pass rates.

CHAPTER TWO

Review of the Literature

Introduction

The road to becoming a reader begins the day a child is born and continues

through the end of third grade. At that point, a child must read with ease and

understanding to take advantage of the learning opportunities in fourth grade and beyond-

in school and in life. Learning to read and write starts at home, long before children go to

school. Very early, children begin to learn about the sounds of spoken language when

they hear their family members talking, laughing, and singing, and when they respond to

all the sounds that fill their world. They begin to understand written language when they

hear adults read stories to them and see adults reading newspapers, magazines, and books

for themselves (Armbruster, Lehr, & Osborn, 2003).

In a classroom setting, teaching a child to read requires patience, skill knowledge,

creativity, effective approaches, and training. It seems, however, that many teachers are

letting students slip through the cracks before they have accomplished this task. In

Flesch's 1955 book, *Why Johnny Can't Read*, he expresses frustration with America's

20th century American educators whom he claims let the child determine when their

reading should begin, rather than instilling readiness, making it grow, using it, treating it,

protecting it, diagnosing it, improving it, ripening it, and directing it (Flesch, 1955). In

what were known as the First Grade Studies (Farstrup, Samuels, & Samuels, 2002), the

primary finding was that the teacher was a variable underlying student success in learning to read. No single method or specialized technique of reading instruction emerged as superior over another. These findings have not been refuted (Farstrup, Samuels, & Samuels, 2002).

Now, over half a century later, the epidemic of negligent reading instruction still continues, with over one third of all U.S. school children having serious literacy deficits. Among first year college students, one quarter require remediation for literacy deficiencies (Moloney, 2006). In 1983, the seriousness of America's educational follies were chronicled in a report entitled *A Nation at Risk*. This report, which forced educators and researchers to evaluate their practices and policies, cited some 23 million American adults as being functionally illiterate by the simplest everyday tests of reading, writing, and comprehension. Also noted was that 13 percent of 17 year olds in the United States could be considered functionally illiterate. Functional illiteracy among minority youth ran as high as 40 percent (National Commission on Excellence in Education, 1983). What, or who, can these statistics be blamed on? What must teachers know and do to change these statistics and to improve the literacy skills of America's students? Reading is recognized as a skill basic for virtually all learning (Whitaker, Gambrell, & Morrow, 2004). More specifically, reading comprehension, viewed by some as the goal of reading, is now increasingly important. Most states have jumped on the standardized testing bandwagon, and the questions on these tests rely on students having reading comprehension skills to respond to the questions being asked (TEA, 2004).

Every year, the National Assessment of Educational Progress (NAEP) measures the reading skills of students in grades 4, 8, and 12. More specifically, NAEP measures

the student's ability to form a general understanding, develop an interpretation, make connections, and examine content and structure (NAEP, 2007). All of these are skills that are directly related to reading comprehension. There are three achievement level definitions: basic, proficient, and advanced. The NAEP results of 2001 showed only 32% of the nation's fourth graders read at or above grade level. In response to this, No Child Left Behind suggested Reading First, in which teachers benefit from research through professional development, instructional materials and programs, and ongoing assessments that ensure accountability in all areas, but specifically in reading. By 2014, the goal of No Child Left Behind is for every school in the country to have its children proficient in reading and math on state exams (Missouri Department of Elementary and Secondary Education, 2006). How will this be accomplished?

The reading programs that schools and districts choose to implement in an effort to meet these federal expectations, as well as the literacy needs of their school populations, depend upon many factors. Whether or not funds are available, whether teachers are trained, and whether class scheduling conflicts with additional pull out programs all play their role in the reading curriculum choices that are made. As a result, it is not uncommon for schools to rely on supplemental programs to help them meet the additional needs of students who are not reading on grade level (Jarvis-Janik, n.d.).

Teaching Reading

It is a fact that a child is not ready to learn to read a word unless it is at least in his listening vocabulary. Reading, then, is dependent upon other language abilities. When the focus broadens to include combinations of words, the dependence remains. Applied to reading, these dependent relationships mean that a child is ready to comprehend in

written language only what he is ready to comprehend in spoken language. Therefore, many reading comprehension problems found in the classroom are really symptoms of deficiencies in the ability to comprehend spoken language (Durkin, 1970).

At a common sense level, a relationship between readiness and new learnings is taken for granted. In fact, acceptance of the relationship is frequently reflected in the everyday comments of parents. For instance, the mother who says to her four year old, "You can't have a two-wheeler yet because you're too little; you'd only fall," certainly accepts the fundamental importance of readiness for successful performance. So, too, does the mother of a much younger son who says to her husband, "Put a pillow behind Paul's back or he'll topple over." Most often, in these everyday kinds of situations, readiness is thought of in terms of one variable or a combination of variables that might include, for example, chronological age, parentage, maturation, interest, intelligence, or prior learning. These same kinds of variables also figure in the professional literature about readiness and the sources from which the concept developed. It is easy to understand how a concept like reading readiness, especially when interpreted in terms of a need to postpone reading instruction, fitted very naturally into the progressive education setting. The expected age of reading readiness was debated for more than two decades. At that time, too often overlooked was the possibility that changes in instruction might affect a child's readiness to begin to read (Durkin, 1966).

In addition to reading readiness, other factors influence effective reading instruction. Building positive attitudes and perceptions, for example, are crucial determinants in learning and therefore deserve the direct attention of educators. Students must be encouraged to read more to enhance literacy skills. Fluency, vocabulary

knowledge, and comprehension skills can only develop when exercised regularly (Guth & Heaney, 1998). For substantive learning to occur, students must have positive attitudes about themselves as learners, about their ability to succeed in school, about the instructional goals that have been set for them (Graves, Juel, & Graves, 1998).

Motivation to read plays a crucial role in developing reading skills. An important goal of reading instruction is to foster an intrinsic desire to read. Effective comprehenders must possess both the skill and will to read. Not surprisingly, motivation and achievement are linked. As individuals read more, they read better and learn more about the world. The result is better comprehension, and therefore better achievement. Effective comprehension instruction increases students' motivation to read. Comprehension instruction can support the development of motivated readers by rewarding improvement and emphasizing effort (Block & Pressley, 2002).

Much like effective comprehension instruction increases students' motivation to read, research suggests that competition diminishes it. Particularly the case for struggling readers, competition undermines motivation for students who do not tend to be the winners. Recognizing effort and improvement in performance increases the probability that a student will exert more effort towards reading (Block & Pressley, 2002).

Arguments continue about what are the most effective, cost-effective, and currently and locally politically correct ways to teach reading in schools (Topping & Paul, 1999). Reading program methods vary greatly. A school may choose to use one program, or to combine aspects of several programs to comprise their own unique form of instruction. It is important to note that schools and districts typically adopt a position or reading curriculum formally or adopt a de facto position or curriculum (Graves, Juel,

& Graves, 1998). It is also important to note that a school's reading program is not limited to the choice in books or instructional materials used in the classroom, but may include anything used to help with reading on campus, such as the library, intervention programs, classroom instruction, ESL support, and reading in the content areas. The majority of methods of reading instruction today can be characterized as following along a continuum of ranges from traditional basal approaches to literature-based approaches to whole-language approaches (Graves, Juel, & Graves, 1998). Examples of programs and strategies adopted in today's reading curriculum include basal readers, Van Allen's Language Experience Method, Reading Recovery, phonics, whole language, Accelerated Reader, decodable books, the Literature Method, Tier 3 Model of instruction, Saxon Phonics, Voyager, Distar, guided reading, and the Visual Auditory Kinesthetic Method.

Based on *A Child Becomes a Reader* (Spring 2003), kindergarten classrooms should be doing the following:

- Developing talking and listening abilities

- Talking about books and print

- Teaching about the alphabet

- Teaching the sounds of spoken language

- Teaching phonics

- Developing spelling and writing

- Building vocabulary and knowledge of the world

- Building comprehension (Armbruster, Lehr, & Osborn, 2003).

First grade classrooms should focus on the following literacy instruction:

- Developing talking and listening abilities

- Teaching about books and print

- Teaching about the alphabet

- Teaching phonemic awareness

- Teaching phonics and word recognition

- Developing spelling and writing

- Building vocabulary and knowledge of the world

- Building comprehension (Armbruster, Lehr, & Osborn, 2003).

Second and third grade classrooms should be characterized by:

- Promoting reading accuracy

- Building fluency

- Teaching spelling and writing

- Developing vocabulary and knowledge of the world

- Increasing comprehension (Armbruster, Lehr, & Osborn, 2003).

The importance of reading has long been recognized by teachers. Yet weak or unmotivated readers seem to put as much energy into avoiding reading as into actually doing it, thus perpetuating a vicious circle. After students reach third grade, their interest in reading declines as other recreational activities and interests fill their time (Nippold, Duthie, & Larsen, 2005). One reason for this shift may be the difficult text that begins to pervade the classroom, both in English classes and in content areas. Another is that less assistance is available at this age for students who are struggling readers. Adolescent programs are being cut as funds and personnel are directed to early intervention programs, leaving little support available for students in the upper grades (Guth & Heaney, 1998).

As students shift from early grades to middle grades and eventually to upper grades, teaching instruction shifts from teaching phonics skills to reading strategies. More focus is placed on reading comprehension, as the need to understand text, make predictions, draw inferences, analyze passages, and organize thinking become increasingly important in all classes where reading is involved. Reading and comprehension are expectations for all classes in middle school and high school. In elementary classes, however, there is usually an allotted time in the school day specifically for reading instruction. Text becomes more dense, vocabulary knowledge is key, and testing relies on comprehension skills more in middle and upper grades than in primary grades. Less emphasis is placed on phonics drills, and decoding skills, reading confidence, fluency, and word recognition are expected for students in grades 6 to 12 (Beers, 2003). Without this knowledge from primary grade teachers, middle school and high school students will not be successful readers. Because fewer pullout programs, intervention strategies, and reading teachers are available to students in middle and high school, learning to read in early grades is a necessity.

Reading Comprehension

Although the primary goal for any reader is to construct meaning or gain understanding, there are a number of tools and/or strategies that a reader may employ to achieve this end result (Reven, 2007). Comprehension is a consuming, continuous, and complex activity, but one that, for good readers, is both satisfying and productive (Farstrup, Samuels, & Samuels, 2002).

Not only is comprehension critical in a language arts classroom, but it is necessary for all academic courses and transcends the walls of a school building into the

everyday life of the reader. The ability to read is not only fundamental for understanding

and mastery of every school subject students will encounter, but literacy also plays a

critical and crucial role in students' social and economic lives. With such an emphasis

placed on the importance of reading achievement, educational leaders must clearly

articulate the expectation that all students become successful readers, while providing

effective strategies to help them succeed (Melton, et al.).

While there is much about a child himself which affects his ability to

comprehend, so too are there features about the material he is reading that enter into and

further complicate the picture. How the material is written, the complexity of ideas, the

rate at which they are being presented, and the vocabulary chosen to express them enter

every situation of successful or unsuccessful comprehension (Durkin, 1970). More

difficult vocabulary often limits or impedes upon a student's comprehension. Text with

unclear transitions and dense information requires more reading skill and may also have

an affect on reading comprehension. Finally, when text is organized clearly with

subheadings or categories, reading comprehension is positively effected, as a student may

be able to segment difficult text into smaller sections.

Balanced comprehension instruction includes both explicit instruction in

strategies and a great deal of time and opportunity for actual reading, writing, and

discussion of text (Farstrup, Samuels, & Samuels, 2002). The idea behind reading

comprehension strategy instruction is that reading comprehension can be improved by

teaching students to use specific cognitive strategies or to reason strategically when they

encounter barriers to comprehension when reading (Farstrup, Samuels, & Samuels,

2002). Examples of specific strategies include reciprocal teaching, graphic organizers

such as story maps and KWL charts, think aloud, repeated reading, questioning the author (QTA), summarizing, generalizing, predicting outcomes, comparing and contrasting, making inferences, and drawing conclusions.

Readers comprehend text by acquiring meaning, confirming meaning, and creating meaning. There are five reasons why it is critical that students learn to become strategic comprehenders:

- Strategies enhance the reader's ability to elaborate, organize, and evaluate information contained in the text.

- As students become more strategic readers, they learn strategies for enhancing attention, memory, communication, and learning.

- Acquiring a larger repertoire of strategies enables students to be more independent in their own learning.

- Strategic processing supports metacognitive development and motivation because students need both in order to become proficient at strategy implementation.

- Strategy use helps students to be more successful across all areas of the curriculum (Whitaker, Gambrell, & Morrow, 2004).

Reading is both an acquired taste and an acquired skill (Anderson, 2000). Part of acquiring a taste for reading is learning to comprehend the text that is being read. There are many factors that affect a student's reading comprehension, including socioeconomic status, racial and ethnic status, and parental involvement. Recent research has suggested that the children who are most likely to experience reading difficulties throughout their school years are those who attend a low achieving school, have limited English

proficiency, are unfamiliar with standard English dialect, or live in communities of poverty (Reis, McCoach, Coyne, Schreiber, Eckert, & Gubbins, 2007). The composition of a student's community, combined with resources available within their school, contribute greatly to the student's reading potential (Binkley & Williams, 1996). Parental involvement in schools and instructional time weigh in on reading comprehension, as well. More exposure to literature develops vocabulary, a key element in reading proficiency. More exposure to vocabulary and prior knowledge develops comprehension. In short, reading begets reading (Johnson & Howard, 2003).

Parental action plays a large role in children's success or failure in schools, especially in reading. Issues of language, culture, and class influence the way parents and children use literacy and the way they understand schooling. A study by Gallimore and Goldenberg concluded that parents' conceptions of how children read, rather than the material itself, may be more influential in framing their literacy interactions with their children (Farstrup, Samuels, & Samuels, 2002).

Fluency also has an impact on a reader's comprehension. The scientific basis for current emphasis on reading fluency can be partially traced to the automaticity and verbal efficiency theories. Both theories highlight the harmful effects of inefficient skills on comprehension and maintain that if reading individual words demands too much attention, little remains for higher level comprehension (Walczyk & Griffith-Ross, 2007). Readers can, however, overcome poor reading fluency. Slowing a student's reading rate to prevent further confusion, for example, or allowing less skilled readers to pause longer, can help students resolve some of their reading difficulties. A student's reading rate is key in aiding comprehension. The more effortlessly a student can recognize words, the

more attention they can devote to comprehension. The more time a student spends

reading, the better their reading rate (O'Connor, White, & Swanson, 2007). Other

answers to the fluency dilemma are strategies like reading aloud, rereading texts,

sounding out, or analogizing words with what they already know (Walczyk & Griffith-

Ross, 2007).

The reader's prior knowledge plays a key role in whether or not a student

comprehends text. Constructivist theory generally assumes that an individual processes or

interprets experience based on previous experience or knowledge. In general, as a reader

reads and remembers a text, he or she attempts to create a coherent mental representation

by integrating text information and by elaborating on the text with prior knowledge about

the world (Whitaker, Gambrell, & Morrow, 2004). It is important that teachers

understand and celebrate what each individual student brings to the reading experience if

they expect to motivate students to read and increase their reading confidence.

The relation of comprehension to the reader's purpose and to the material being

read provides a way of thinking about comprehension that relates it directly to classroom

instruction. Therefore, one definition of comprehension can be defined as the fulfillment

of a particular purpose through the use of appropriate material which is read in a

particular way (Durkin, 1970). The social context influences what one reads, how one

reads, and why one reads (Whitaker, Gambrell, & Morrow, 2004). It is important,

therefore, that teachers address this issue by making reading relevant to students and

establishing a purpose for reading text.

Quite a bit goes on when good readers read. The good reader is always

monitoring and always aware of the characteristics of the text. The good reader monitors

problems during reading, including loss of attention, words that are not known, or text that does not seem to make sense. Good readers are evaluating text as they read, and sometimes rereads selectively upon finishing the text. Becoming a good reader requires practice reading and constant exposure to text (Block & Pressley, 2002). Practice might not always perfect a child's comprehension abilities, but it seems to be essential even for rather modest achievement (Durkin, 1970). Without having comprehension strategies modeled for them, readers would not know how to monitor their comprehension.

The Reading Wars

It is one thing to talk about reading and another to talk about teaching reading (Anderson, 2000). The teaching of initial literacy is perhaps the most challenging job in education (Harrison, 1999). It is because of this challenge that educators have a strong opinion about the best way to teach reading. At the heart of this choice is a decision between teaching reading through phonics or whole language methods. This debate has been dubbed the "Reading Wars."

Although the whole-language movement began in the early 1970s, the dispute about reading instruction goes back much further. Noah Webster believed in phonics, Horace Mann in the word method. In the late 1920s, as progressive education became an influential movement, schools began to switch from phonics to whole-word reading instruction. The much-lampooned mid-twentieth-century *Dick and Jane* readers, and also Dr. Seuss's *The Cat in the Hat*, are based on whole-word theory: they try to get children to familiarize themselves with a limited set of simple words (to memorize them, phonics people would say, like trick ponies), not to use their knowledge of letters and sounds to decode words they haven't seen before (Anderson, 2000).

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Rudolf Flesch's scorching 1955 best seller *Why Johnny Can't Read* turned the pendulum back toward phonics in the 1960s. By the 1980s, the glory decade for whole-language, the pendulum had swung again. Instead of using *See Dick and Jane Run* primers, teachers began using authentic children's literature and encouraged inventive spelling (Anderson, 2000). Although the founders of whole language did not intend for whole language to replace phonics instruction, it has in many places. The result is a generation of kids who can't spell and a large percentage of students turned over to special education teachers to learn to read. This ushered in the return of the lackluster drills of phonic instruction (Anderson, 2000).

The founders of whole-language, Frank Smith, for many years a professor of psychology at the University of Victoria, in British Columbia, and Kenneth Goodman, a professor of education at the University of Arizona, see themselves as champions of teachers who are up against a hostile world. They present whole-language instruction as a joyful, humanistic, intellectually challenging alternative to deadening phoneme drills—one that turns the classroom from a factory floor into a nurturing environment in which children naturally blossom. With whole language, teachers are expected to provide a literacy rich environment for their students and to combine speaking, listening, reading and writing. Whole language teachers emphasize the meaning of texts over the sounds of letters, and phonics instruction becomes just one component of the whole language classroom. Phonics instructors heatedly dispute the idea that learning phonemes is dull (Anderson, 2000).

Whole language is considered a top down approach where the reader constructs a personal meaning for a text based on using their prior knowledge to interpret the meaning

of what they are reading. Problems associated with whole language include a lack of structure that has been traditionally supplied by the scope and sequence, lessons and activities, and extensive graded literature found in basal readers. Whole language puts a heavy burden on teachers to develop their own curriculum.

The whole-language camp is hostile to the idea that scores on standardized tests of reading skills are the best way to measure quality of education. The phonics proponents point to declining reading scores that they see as a result of whole language instruction and scientific instruction that points out phonics instruction is much better.

Phonics is considered a bottom up approach where students decode the meaning of a text. The advantage of phonics, especially for students who come to school with large vocabularies, is that once they get the basics down, they can read a wide variety of children's literature.

Traditionalists tend to favor phonics. Politically, phonics is winning (Anderson, 2000). Whole language is favored by progressives and by proponents as a way of improving self esteem. California was in the spotlight for adopting whole language (at William Honig—superintendent—'s request) and ended up with a sharp downturn in reading scores, even among middle class, suburban, native-English speaking students. Legislators responded in the 1990s with mandates to teach phonics. The reading portion of NAEP placed children in a tie for the last place in the nation. Before children can become proficient readers, they must learn phonics. Whole language proponents claim that this drop in California reading scores may not be a result of whole language teaching, but in curriculum change, in which case it takes time for evidence to present itself about the curriculum's effectiveness (Anderson, 2000).

As there is a great deal of controversy about how to effectively teach reading, many schools prefer to implement a balanced approach (Graves, Juel, & Graves, 1998). Although common ground exists, none of it points to any single best way to teach reading. In fact, all evidence points to the need to allow teachers the flexibility to elect the methods, approaches, and materials to fit the particular child and the particular situation. Reading development and instruction is far too complex and involves too many variables to simplify and prescribe it for all children in all situations (Flippo, 1999).

The National Reading Panel

In 1997, Congress asked the Director of the National Institute of Child Health and Human Development (NICHD) at the National Institute of Health, in consultation with the Secretary of Education, to convene a national panel to assess the effectiveness of different approaches used to teach children to read (About the NRP, 2002). The panel of fourteen members consisted of scientists engaged in reading research, psychologists, a pediatrician, a teacher, administrators, a principal, and a parent (International Reading Association, 2002). The panel identified over 100,000 studies, and further narrowed their search by only accepting studies with well defined instructional procedures, those that were experimental in design, those that showed causality between practice and outcomes, and those including a large sample size. Qualitative, descriptive, observational, and correlational studies were not chosen as part of the investigative study (International Reading Association, 2002).

Over a span of two years, the Panel reviewed research on reading instruction and held panel meetings on Washington, DC and regional meetings across the United States.

At the first panel meeting, members were charged with the following questions to address:

- What is known about the basic process by which children learn to read?

- What are the most common instructional approaches in use in the U.S. to teach children to read? What are the scientific underpinnings for each of these methodological approaches, and what assessments have been done to validate their underlying scientific rationale? What conclusions about he scientific basis for these approaches does the Panel draw from these assessments?

- What assessments have been made of the effectiveness of each of these methodologies in actual use in helping children develop critical reading skills, and what conclusions does the Panel draw from these assessments?

- Based on answers to the preceding questions, what does the Panel conclude about the readiness for implementation in the classroom of these research results?

- How are teachers trained to teach children to read, and what do studies show about the effectiveness of this training? How can this knowledge be applied to improve this training?

- What practical findings from the Panel can be used immediately by parents, teachers, and other educational audiences to help children

learn how to read, and how can conclusions of the Panel be

disseminated most effectively?

- What important gaps remain in our knowledge of how children learn

    to read, the effectiveness of different instructional methods for

    teaching reading, and how to improve the preparation of teachers in

    reading instruction that could be addressed by additional research?

On April 13, 2000, the NRP concluded its work and submitted "The Report of the

National Reading Panel: Teaching Children to Read" (About the NRP, 2002). Many

organizations and campuses relied on the recommendations of the National Reading

Panel to determine their reading instruction practices.

NRP Recommendations

The Panel determined that effective reading instruction includes teaching children

to break apart and manipulate the sounds of words, teaching them that these sounds are

represented by letters that can be blended together to form words, having them practice

what they have learned by reading aloud with guidance and feedback, and teaching them

to apply strategies to guide and improve reading comprehension (International Reading

Association, 2002). Specifically, the recommendations of the National Reading Panel

were as follows:

- The Panel concluded the phonemic awareness training led to

    improvement in student's phonemic awareness, reading and spelling

    (About the NRP, 2002).

- Teaching phonemic awareness in small groups produces better results than teaching individuals or whole classes (International Reading Association, 2002).

- Phonemic awareness taught with letters is more effective than phonemic awareness taught without letters (International Reading Association, 2002).

- Teaching sessions for phonemic awareness of about 30 minutes a total of no more than about 20 hours appeared to be most effective (International Reading Association, 2002).

- The Panel concluded that systematic phonics instruction leads to significant positive benefits for students in kindergarten through the sixth grade and for children with difficulty learning to read. Kindergarteners who receive systematic beginning instruction read better and spell better than other children, and first graders are better able to spell and decode words. The students also show significant improvement in their ability to understand what they read. Similarly, phonics instruction helps other children spell and decode text better, although their understanding does not necessarily improve (About the NRP, 2002).

- Reading practice is generally believed to improve fluency, and two instructional approaches are usually used to practice reading: guided repeated oral reading and independent silent reading. The Panel determined that guided repeated oral reading has a significant and

positive impact on word recognition, reading fluency, and

comprehension for students of all ages. However, the Panel was unable

to conclude that independent silent reading, as the only type of reading

instruction, improves reading fluency (About the NRP, 2002).

- Vocabulary should be taught both directly and indirectly. Repetition

  and seeing vocabulary words several times is also important. Learning

  in rich contexts, incidental learning, and the use of computer

  technology all help children develop larger vocabularies. A

  combination of methods, rather than a single teaching method, leads to

  the best learning (About the NRP, 2002).

- Text comprehension is improved when teachers use a combination of

  reading comprehension techniques such as question answering,

  question generation, and summarization. When students are able to use

  them successfully, they perform better in recall, answering questions,

  generating questions, and summarizing texts (About the NRP, 2002).

- The Panel found that intensive professional development is necessary

  so that teachers can learn to use reading comprehension strategies

  effectively (About the NRP, 2002).

- The research the Panel reviewed by the Panel was too limited to make

  any strong recommendations regarding the value of computer

  technology to reading instruction. However, all the studies indicated

  positive results. Promising technology include the addition of speech

to computer-presented text, the use of hypertext, and the use of

computers as word processors (About the NRP, 2002).

The NRP Minority Report

From the beginning, the National Reading Panel chose to conceptualize and

review the field of reading narrowly, thereby excluding inquiry into any fields of

language and literature. Because only alphabetics, comprehension, and fluency were

examined, and because the studies examined were so limited, Joanne Yatvin, a member

of the Panel, filed the "Minority View" Report. The Report discussed her belief that the

Panel did not adequately address the questions it was asked to address. Yatvin stated that,

"the reviews are of limited usefulness to teachers, administrators, and policymakers

because they fail to address the key issues that have made elementary schools both a

battleground for advocates of opposing philosophies and a prey for purveyors or 'quick

fixes.'" (Yatvin, 2001, 2). Furthermore, Yatvin claimed that questions relevant to the

success of an instructional technique, such as "how much" to teach and "when," were not

even examined in most studies. Finally, Yatvin explained that Congress's charge to the

Panel was more time consuming than they initially understood, and it would not have

been possible to completely fulfill Congress's request in the time frame they were given.

As the only educator on the Panel with experience at an elementary school, the purpose

of Yatvin's "Minority View" was to request Congress's recognition that the work of the

Panel was not thorough enough and its findings were not adequate (Yatvin, 2001).

In 2001, the National Assessment of Education Progress showed that only 32% of the nation's fourth graders read at or above grade level. As a result, No Child Left Behind's (NCLB) answer to this problem was to ensure that all teachers benefit from relevant research through professional development, instructional materials, and programs based on sound research, and by ensuring accountability through ongoing assessments (Reading First, 2008).

Reading First, a program that is part of NCLB, reflects the concern of making sure students read well by the end of third grade. Reading First is based on the expectation that instructional decisions for all students will be guided by the best available research. Under Reading First, states can receive federal funding to improve reading achievement. Funds are dedicated to helping states and local school districts establish high quality comprehensive reading instruction for all children in kindergarten through third grade. Through reading instruction, students are taught phonemic awareness, phonics, fluency, vocabulary, and comprehension (Reading First, 2008). NCLB also supports programs to help children build language and pre-reading skills before they start kindergarten through Early Reading First, especially for those from low income families (Reading First, 2008).

The Reading First program builds on the findings of the National Reading Panel's report. Funding is determined for programs based on the recommendations of the National Reading Panel in the areas of phonemic awareness, phonics, vocabulary, fluency, and comprehension (Reading First, 2008).

Reading Assessments

Assessment is used to inform instruction for both large groups and individuals. Different assessment instruments serve different purposes. For example, statewide achievement tests are useful to inform the public about system-wide instructional efficacy. While such broad-based tests provide useful pragmatic information, they are usually less precise in providing information about individual student strengths and weaknesses. Individual diagnostic tests are very useful to the classroom teacher for instructional planning as well as to inform parents of student needs, but are less important for broad public accountability. Regular assessments are needed to guide decisions about such things as grouping, the instructional pace, and individual need for support (Honig, Diamond, & Gutlohn, 2000).

Because the fundamentals for reading are taught in the primary grades, it is imperative that assessments take place during these grades to determine reading weaknesses. In upper elementary and secondary grades, it is important to find out where students struggle with their reading, as well. Elementary assessments tend to be pinpoint specific areas of need, while upper grade assessments tend to identify broader skills. As such, assessments in upper grades become increasingly diagnostic (Honig, Diamond, & Gutlohn, 2000).

Types of assessments include screening tests, formative assessments, summative assessments, and diagnostic assessments. Screening tests provide information about the knowledge and skill base of the student and are helpful in grouping and in differentiating instruction. In the primary grades, screening tests should measure phonological awareness, phonics, fluency, vocabulary, spelling, and comprehension. In the upper

grades, comprehension is usually the first screening test and can be followed up by others, based on areas of weakness (Honig, Diamond, & Gutlohn, 2000).

Formative assessments are ongoing and may include teacher observations, informal or formal tests, and curriculum tasks. Summative assessments, on the other hand, are usually administered at the end of a unit of instruction or at a particular point during the school year (Honig, Diamond, & Gutlohn, 2000). Diagnostic tests are used for screening, for formative or summative assessment, to plan instruction, and to gather information about a student's strengths and weaknesses. Examples of diagnostic tests include the *Woodcock Reading Mastery Test, Durrell Analysis of Reading Difficulty,* and *Stanford Diagnostic Reading Test* (Honig, Diamond, & Gutlohn, 2000). For any assessment, it is important the administrator of the test has been trained in the administration of the test, in interpreting the results, and in assisting the teacher in addressing the needs of the child that have been determined by the assessment.

As reading is not a simple process, reading assessments must look at several factors, including the student's reading fluency, decoding skills, word recognition, spelling knowledge, reading comprehension, and vocabulary (Honig, Diamond, & Gutlohn, 2000).

Texas Reading Assessments

In kindergarten, first, and second grades, students in Texas are administered the Texas Primary Reading Inventory (TPRI). Created through collaboration between the Texas Education Agency and the Center for Academic and Reading Skills, the TPRI is considered an informal assessment that provides teachers with a means of determining where along the continuum of growth students are progressing as readers. The TPRI is a

one-on-one classroom based assessment administered by the classroom teacher (TPRI, 2006). Although it is only a required assessment for kindergarten, first, and second grades, the TPRI is also available as a reading assessment tool for third grade. Specific reading concepts are assessed in the inventory, including a child's book and print awareness, phonemic awareness, graphophonemic knowledge, oral reading ability, and listening and reading comprehension. Which skills are tested are determined by the student's grade level and time of year in which the test is administered. If a child's TPRI indicates a student needs intensive instruction, parents are contacted and then intervention methods begin to assist the student in meeting their needs (TEA, 2005).

The Texas Reading Initiative also created the Tejas LEE to provide an early Spanish reading instrument that schools may select and administer. The Tejas LEE is a reading instrument comparable to the Texas Primary Reading Inventory. The intent of the Tejas LEE is to capture significant skills and steps in the development of Spanish reading and comprehension development that can be used to plan individual and/or group reading instruction for early intervention and prevention of reading problems (TEA, 2005). The Texas legislature requires either the Tejas LEE or the TPRI in kindergarten, as well as first and second grades. Using diagnostic reading assessment data should ensure that all children receive assistance in learning to read at the earliest possible time and any child who needs help in developing reading skills will not be overlooked (TEA, 2005). The Texas Assessment of Knowledge and Skills (TAKS) is used as the reading assessment for grades 3 through 9. TAKS Reading assessments test TEKS reading objectives as established by the Texas Education Agency for each grade level. Students are tested through multiple choice items and open ended questions that relate to revising, editing, or

analyzing passages of text. Examples of TAKS Reading test questions can be found in the Appendices. TEA states, "in order for students to be successful readers and writers, reading and writing activities must occur at *every* grade level, not merely at the tested grades. The TEKS were organized to ensure that each grade level students acquire the reading and writing skills they will need for success at the next grade" (TEA, 2004).

<p style="text-align:center">*Technology and Reading Instruction*</p>

The Internet is rapidly entering nearly every classroom in developed nations around the world. We must pay particular attention to developing the critical literacies these new technologies demand (International Reading Association, 2001). Current technology helps solve time dilemmas for teachers and provide increased efficiency and effectiveness, as well as additional instructional time for teachers when tools are properly implemented (Balajthy, 2007). Reading fluently with comprehension is increasingly necessary, as requirements and possibilities for information processing expand exponentially, be it on paper or electronically. (Topping & Paul, 1999).

Computer attributes that are suggested to support improved reading achievement include the ability for the computer to accept free from responses to comprehension questions, enable the strong connection between writing and reading through word processing, engage students in reading tasks for longer periods of time, hyperlink to related subject matter to help build comprehension, and connect students to more reading materials online (Technology in Reading Instruction, 2003).

Modern educators often witness something of a paradox; students who can't read at grade level, but nevertheless possess an astounding knowledge of the latest technology. A new middle school program called TechnoReading is designed to capitalize on

students' interest in technology and use it to help students see reading in a different light (Technology in Reading Instruction, 2003). For reading teachers, professional development is now offered online. PDA's are now being used to score, analyze, and document reading performance. Using this saves teachers an average of 4.62 hours per class administration of the Texas Primary Reading Inventory, for example. Electronic books (E-books) are available for students, providing more access to quality literature. For Special Education students with reading difficulties, text can be scanned and read to them (Technology in Reading Instruction, 2003).

In compliance with all this technology is the need for technological skills being taught to students and used within the classroom. States such as Alabama, Georgia, Mississippi, Florida, North Carolina, and South Carolina have integrated literacy skills into their state education standards. The National Reading Panel's subgroup report, *Computer Technology and Reading Instruction*, claims that "reading instruction can probably make good use of the motivational aspects of computers and software" (Technology in Reading Instruction, 2003).

Despite the current intense interest in computer technology, there is relatively little systematic research into problems involving computers or other technologies in the teaching of reading. First, many researchers did not, and still do not, consider technology to be a mainstream topic. They often believe that reading instruction can only be delivered by a human. Others believe that technology must be considered in the overall context of reading instruction. Also, until recently, computers did not have all of the capabilities that were needed to implement a complete program of reading instruction (National Institute for Literacy, 2006). According to the International Reading

Association (2007), the internet and other forms of information and communication technology are redefining the nature of literacy.

As this study focuses on the ninth grade population specifically, it is important to note that amidst the array of computer programs that teach phonics skills, handheld equipment for teachers, and software for administering or scoring tests, there is very little available for students on the secondary level that assists with reading deficits. Most software for reading instruction focuses on word recognition and basic comprehension in a format that is too juvenile for high school students. Similarly, upper grade literacy software for special needs kids is generally unsuitable for the regular classroom where instruction is organized around literature. Yet many high school students in standard or even advanced classes have real problems with reading comprehension.

Reading Assessments using Technology

The vast realm of technological advances has not only impacted individuals in their free time in the form of ipods, My Space, internet, and CD burners. Now, teachers are learning to take advantage of the technological assessment tools available to them within the classroom. Learning tools are becoming more readily available. In these days of accountability, test publishers are scrambling to establish their particular devices as technologically superior, and developments are rapid.

Benefits of this bountiful technology impacts school administrators, as well. As standardized testing scores have become the source of accountability and funding in many cases, less wait time between testing and receipt of scores is desirable. Online access to student scores for administrators eliminates wait time, and software applications allow scores to be disaggregated in a variety of ways. In addition, computer-based norms

reporting is available. Students take the traditional paper and pencil test, and then teachers have the option of entering raw scores into the software to receive scores. Harcourt and Pearson are two such companies that provide online management systems. Renaissance Learning, home of the Accelerated Reader program, also provides an online system called Renaissance Place that assists in organization and tracking of student development. School based computer scanning allows schools to process answer sheets at their own sites using a test scanner connected to a person computer. Not only can schools receive scores more promptly, but the tests can be taken on the computer, as well. In the field of reading, computer based assessment software is available for installation and administration on school computers.

STAR Reading, a diagnostic tool often used to complement the Accelerated Reader program, is a popular example of such a test. Computer Adaptive Testing (CAT) makes this program unique because it shortens the time needed to take a test, and questions are individually tailored to the student taking the test. The Scholastic Reading Inventory and Riverside Publishing's Basic Early Assessment of Reading are two other examples of normed tests available for the computer.

Furthermore, other reading tests can be made available through the Internet, such as the Stanford Diagnostic Reading Test. Observational record keeping, now computer-based, provides a record keeping system for student learning. Checklists available on these programs can be compared to developmental benchmarks typically expected of students at each grade in individual, class, and school reports. Websites now provide assessment and multimedia resources, as well (Balajthy, 2007).

Help with reading is crucial for secondary students because it is key to classroom success in every subject as well as satisfactory performance on standardized tests. As Accelerated Reader is one program that claims to help students in this area, this study will focus on how its implementation affects TAKS reading comprehension scores.

Accelerated Reader Program

Developed by Advantage Learning Systems and Judith and Terrance Paul in 1986, the Accelerated Reader Program is a computer based reading management program available for k-12, although most sites that use AR are elementary and middle schools. Accelerated Reader was the first major recreational reading management system to gain popularity across the United States (Balajthy, 2007). Now marketed by the Renaissance Learning company, it is used in over 60,000 schools across the country. The program consists of a basic three-step formula: Students check out a book from a list of prescribed fiction or nonfiction titles that suit their assessed reading level, students read the book, and students take a quiz on the book to demonstrate mastery of content (Brown, 2001). The multiple-choice format of quizzes, usually consisting of ten to twenty questions, is used to gauge literal comprehension of the texts and re-assess student reading level. The tests are not designed, however, to help students explore story ideas or apply lessons to personal experiences (Education Commission of the States, 1999). The quizzes provide immediate feedback for both student and teacher in the form of a test score.

Students use their test scores to earn points, and then may use the points for extrinsic awards. Reading comprehension is a multi-faceted process whereby the reader is influenced by his or her background, the text, and the purpose for reading the text. (Johnson & Howard, 2003). Selecting material for comprehension instruction and

practice requires attention to appropriateness and difficulty (Durkin, 1976). Both of these factors are addressed by the Accelerated Reader program. Students choose a book based on their pre-determined reading level, assigned by the STAR test. The STAR test is taken by students before participating in the AR program. STAR is a multiple choice assessment provided by Renaissance Learning to be used with AR and, based on student responses, determines the appropriate reading level for each student who participates in the program. Although appropriateness and difficulty, therefore, are addressed by the AR program, the difference is that it is a reading management program, not a program that teaches reading comprehension.

Readability levels of books are based on the Flesch-Kincaid reading index, and schools are required to buy CD-ROMs that include assessments of those titles to be made available to students.

Three kits are available for purchase for schools. The Starter kit, with reading practice disks for up to 200 quizzes, costs $399. The Economy Kit, which contains test disk sets for up to 1,000 quizzes, costs $1499. The Super Kit, which has test disk kits for up to 1,000 quizzes and also includes software for a computer-adaptive testing program, costs $2,999. Training sessions and guide books are also available (Renaissance Learning, 2007).

STAR Testing

Before participating in the Accelerated Reader program, students are assessed by the STAR (Standardized Test for Assessment of Reading) test. Sold by Renaissance Learning in addition to the AR kit, the STAR Reading test is a two stage test that measures reading levels. By answering multiple choice questions, a student's reading

range is determined. AR books in the school library are labeled with a reading level. It is this reading range that students look for when they want to check out a book and then take the corresponding quiz.

The questions on the STAR Reading test vary and include items that:

- Ask the student to determine the definition of a vocabulary word based on the context of the sentence or passage.

- Ask the student to interpret the meaning of the sentence in order to choose the correct word that would complete the sentence.

Sample STAR Reading items can be found in the Appendices.

The questions a student will receive on the STAR test is determined by students' responses. If the student has a correct response, the difficulty level is increased. On the other hand, if the student answers a question incorrectly, the difficulty level is decreased. In addition to determining a student's AR reading level, the STAR Reading test is used as a diagnostic tool available for grades k-12 to help teachers determine what reading skills their students need help with, to measure individual and class growth, and to forecast standardized test results. Tests usually take less than 10 minutes to complete and can be re-administered as needed numerous times throughout the school year (Renaissance Learning, 2007).

The student's reading range is based on the Zone of Proximal Development. This term, coined by psychologist Vygotsky, is defined as the gap between what a child has already mastered and what a child can achieve with guidance (Learn NC, 2007). More specifically, Renaissance Learning considers the zone of proximal development the range of books in which a child can be challenged while reading yet still be successful on the

AR test (Top Secret, 2002). Other data found on each STAR Reading student diagnostic

report includes (based on the test), the student's grade equivalent score, the national

percentile rank and range under which the student's reading scores fall, and tips to help

the student reach optimal reading potential and continued reading growth. A sample

diagnostic report can be found in the Appendices.

Accelerated Reader Implementation

The most varied aspect of the Accelerated Reader program is its implementation.

The program allows competition between students, teams, classes, or schools at the

national or international level. The software also generates a series of reports on each

individual student showing tests taken and points accumulated. Incentives used within

this program include translation of reading points to homework or class grades, personal

items for individual students, and a pizza party for the class with the most overall points

for the year (Guth & Heaney, 1998).

Teacher implementation, however, is as widespread as it is diverse in terms of

classroom and campus application (Groce & Groce, 2005). Many high schools require a

certain number of points to be obtained per grading term and may allot a percentage of a

student's grade based on their Accelerated Reader testing performance. Other schools use

the program's quizzes solely as an assessment tool for books the class has read as a

group. Aside from English teachers and librarians, however, most schools do not involve

other teachers in the program. It is critical that all teachers be involved and supportive of

a school literacy program if they expect to succeed (Guth & Heaney, 1998).

Some schools proudly claim, "AR *is* my reading program." Parents and students

talk only about AR test scores and trinkets, not of literature circles or engaging extension

activities. Libraries have been divided into AR and regular circulation sections, and students are denied access to materials that are not on their designated levels. Instead of allocating money to classroom libraries and staff development, funds are being used for purchase of the AR and STAR CD-ROMs (Biggers, 2001).

Research on Accelerated Reader

Reading programs like Basal readers, Reading Recovery, Voyager, Distar, and Saxon Phonics compete with well marketed computer software reading management programs like Accelerated Reader on a daily basis. These programs, unlike Accelerated Reader, are meant to be complete reading programs. However, when it comes to reading programs for high school students, Accelerated Reader has become more of a reading program than it was ever meant to be. Accelerated Reading is designed to be used as supplemental instruction and does not take place of a main reading program. The multiple choice format of quizzes is useful in gauging literal comprehension of texts and assessing students' reading level, but has no mechanism for helping students explore story ideas or apply the story's lessons to their personal experiences (Education Commission of the States, 1999).

Accelerated Reader claims to create lifelong readers and motivation for students (Renaissance Learning, 2007). Whether or not this is true in all cases, is questionable. Does it actually encourage high school students to read more books? There hasn't been a great deal of peer-reviewed or refereed research on Accelerated Reader (Trelease, 2004). Studies indicate that as children become adolescents, their interest in reading as a leisure activity may decline as other free time options, like listening to music, watching television or videos, playing sports, and playing computer or video games, compete for

their attention. As students get older, their interests in reading are changed. As a result, the effectiveness of the Accelerated Reader program begins to decline after third grade (Nippold, Duthie, & Larson, 2005). With an increase in content area reading and dense text in higher grades, students' enjoyment of reading diminishes with age. Insufficient time spent on reading is problematic for students whose language and literacy skills are weak (Nippold, Duthie, and Larsen, 2005). Other methods are needed to encourage students to read.

Very little, if any, research regarding the Accelerated Reader program has been done using high school readers as the sample population. However, schools continue to use the program for high school students. A study by Topping and Paul (Topping & Paul, 1999) explored the relationship between computer assisted student self assessment of reading comprehension using Accelerated Reader as a measure of reading practice and high and low performers on state reading tests. The data suggested that reading ability was positively related to the amount of in-school reading time allotted. More reading time was found in private schools than public schools, and the amount of time allotted for reading declined after fifth and sixth grades. Any program that provides reading time is bound to encourage reading and therefore impact fluency and reading ability. However, reading time without additional reading strategies does not improve technique or comprehension. According to a study by Topping and Fisher (2003), more important than increased reading time in the classroom is the ability of teachers to closely monitor and manage the quality and quantity of individualized reading of all their pupils for optimum effectiveness (Topping & Fisher, 2003).

Another favorable instructional characteristic that aids in reading comprehension is ensuring students have established a purpose for reading (Durkin, 1976). Examples of this include pre-reading activities, linking to prior knowledge, and relating text to students to engage students in the reading. Accelerated Reader also aims to establish a purpose for reading. Depending on how the program is implemented in the schools, this purpose could be a class or exam grade, or could be prizes available after points are accumulated. AR's purpose was to create lifelong readers. Yet, it has been implemented as a requirement, and not as a tool to increase student motivation for reading, as it was originally intended. If teachers use Accelerated Reader as feedback on progress of kids, that is very useful. It is not, however, a stand alone program (Chenoweth, 2001).

Although there have been reports that reading management programs increase voluntary independent reading, programs like Accelerated Reader do little to increase comprehension or enhance reading instruction, according to Brown (2001). In Brown's study, students were assigned two different book titles for independent reading. Using thinking maps, students analyzed the information in books then used these to generate questions for a mock AR test. The premise for the study was that using integration and organizational activities to recall and comprehend textual information were more effective than the use of the Accelerated Reader program. Students were able to use higher level thinking, rather than simple recall of facts (Brown, 2001). In a separate study, Pavonetti, Brimmer, and Cipielewski (2000) investigated whether seventh graders who were exposed to Accelerated Reader during elementary school tend to do more reading of books than those without exposure. The study found no long term motivational

effects on reading based on the Accelerated Reader program (Pavonetti, Brimmer, & Cipielewski, 2000).

Because Accelerated Reader is a supplemental program meant to be used in conjunction with other reading approaches, it is impossible to determine from the research how much academic gain is due to the program and how much is a result of other strategies (Education Commission of the States, 1999). Quantitative data based on Accelerated Reader testing indicates that, in one school, while 28 of 1058 students read well enough to be considered outstanding readers, sixty percent of the student body read few or no books, and eighteen percent of students read no books at all (Battraw, 2002). No supplemental reading program will be effective if students do not participate. The presence of an AR program, without actual daily usage by students, is not helpful in improving reading comprehension and vocabulary (Johnson & Howard, 2003).

Most research regarding the Accelerated Reader program has been done using sample populations of elementary and middle school students. Very few studies exist that evaluate the success of the AR program in high schools. Those that exist have attempted to prove that the AR program definitely has its benefits; it is successful in motivating students to read more, for example, primarily because of the ability for them to choose books that interest them most. It is important to note that much of the existing data regarding the effectiveness of the Accelerated Reading program is based on studies that the Renaissance Learning company sponsored, making any such results a conflict of interest and possibly unreliable. Research shows that large amounts of appropriate literature instills a love of reading in students. Students who read many books within their zone of proximal development—books that are neither too hard nor too easy—succeed as

readers and success creates the intrinsic motivation to read more (Institute for Academic Excellence, 1998). However, students should not only be reading for enjoyment. They should learn to read for understanding of both the text and themselves (Guth & Heaney, 1998). This is something that the Accelerated Reader Program does not offer.

On its website, Renaissance Learning provides research yielding positive results supporting the effectiveness of AR on reading comprehension. Upon closer examination, these studies were found to be inadequate in supporting AR's claims. Although there have been reports that the program increases volunteer reading, it does little to increase comprehension or enhance reading instruction (Brown, 2001). In 2007, the What Works Clearinghouse gave the green light to the Accelerated Reader program, finding that it was a tool that met high standards of scientifically based research. One study met the What Works Clearinghouse evidence standards. The study included 910 students from grades K to 3 attending 11 schools in a southern school district in the United States. According to the Clearinghouse, Accelerated Reader was found to have potentially positive effects on comprehension and general reading achievement (What Works Clearinghouse, 2007).

Of the limited studies available, very few studies attempt to provide a control group. The lack of these studies is a serious gap because research firmly establishes that providing access to books and time for recreational reading is effective. AR differs from pure recreational reading only because it adds tests and rewards. If there is no evidence providing clear support for the use of these factors, there is no evidence in support of AR (Krashen, 2003).

Since the multiple-choice AR quizzes usually recall factual information only and are not designed to allow students to apply knowledge of what they read, comprehension

improvement is impeded (Brown, 2001). In a study by Facemire (2000), the effect of the Accelerated Reader program on reading comprehension scores was investigated for third grade students in a socio-economically disadvantaged area in West Virginia. Two classes participated in the study. One class was encouraged to read and test on books in the Accelerated Reader program, and the other was not. The STAR test was used as a pretest and posttest for both classes of students. Data did not show a significant difference in reading comprehension scores of third grade students that could be attributed to the Accelerated Reader program (Facemire, 2000). AR restricts students to demonstrating their comprehension solely by a computer generated multiple choice test, and does not allow for written responses, extension activities, or repeated interaction with the text (Biggers, 2001). In another study, after a year of using Accelerated Reader, no significant increase in reading achievement was evident in fifth grade students when compared to students who did not participate in the program (Melton, Smothers, Anderson, Replogle, & Thomas, Spring 2004).

In addition to comprehension, some educators argue that problems with the Accelerated Reader program also include the fact that reading, in and of itself, is devalued with the use of the Accelerated Reader program. By granting rewards for reading more and supposedly better books, educators unconsciously state that reading cannot stand alone as an enjoyable pursuit, and thereby lessen the possibility that students will read voluntarily. Also, since students have a pre-determined selection of books to choose from, they fail to learn the joy of picking books on their own to read. Interest in reading material impacts comprehension, and student interest is not taken into account when reading levels are determined. When students have high interest in a topic, they are

able to read more difficult text than an assessment would otherwise determine. Conversely, students with little interest in a topic will demonstrate low comprehension of material (Biggers, 2001). Finally, the mandatory quizzes that are so essential to the Accelerated Reader program mean that testing, rather than independent needs, drives the reading (Carter, 1996). Are students reading because they want to, or because it is required?

Students cannot improve reading solely through multiple choice tests. Accelerated Reader forces students to be independent readers and to retain factual information, rather than focus on comprehension. Instead, other factors must be present if students are to become better readers. Oral language opportunities, for example, must be built into the student's learning environment. Students need opportunities to use both the receptive and productive modes to enhance language usage. Educators should remember that students need language ability to reason, to think, and to understand. In addition to language, social dynamics are important considerations in designing positive conditions for literacy. A literacy program design is not as simple as applying one formula. Instead, creating a collaborative literacy program is best (Guth & Heaney, 1998). Accelerated Reader does not teach reading, nor does it teach comprehension. Instead, it only tests comprehension. Perhaps the most problematic aspect of AR and other programs like it is that they are presented as a way to differentiate instruction for students. However, AR is not an instructional program—there is no literacy instruction to differentiate in AR. The teacher's role does not include providing direct instruction in reading strategies as would be done in balanced reading programs (Biggers, 2001).

Over 60,000 schools currently use Accelerated Reader. Yet, if it is truly effective, why is its purchase not approved by federal funds? New rules require federal money to be spent only on programs that have been proven with independent research to be effective. Accelerated Reader does not qualify. The National Reading Panel reviewed the (lack of quality) research on the program, and concluded that AR did not meet their standards for funding (Chenoweth, 2001).

Another problem with the program that must be discussed is the discouragement the quizzes can cause some readers. The quizzes are questionable as a measure of whether or not a student is reading on the correct level. In one study, a student could not remember a detail such as what was written on a bunny's collar. The student failed the quiz and became discouraged with the program, thinking of himself as a bad reader. Discouraging reading rather than encouraging reading undermines the whole point of the Accelerated Reader program (Chenoweth, 2001).

Increased independent reading like that encouraged by Accelerated Reader lends itself to increased reading comprehension. Research consistently shows that increased recreational reading profoundly increases reading ability and literacy development and general. There are no studies, however, that test the hypothesis that testing children on their reading has a positive effect (Krashen, 2002). The objective of this study is to determine whether schools that implement the AR program have higher ninth grade reading comprehension scores than schools that do not.

Summary

Reading ability has academic, economic, societal, political, and personal value. Heavy emphasis is placed on teaching children to read as soon as they enter school. As

students progress through school, increasing levels of reading comprehension are typically required for academic success in other subject areas. Students who are unable to read adequately are increasingly handicapped as they move through elementary school. Compared to students who are making at least normal progress in reading achievement, those who cannot read adequately are more apt to meet academic failures and to repeat grades. If they get into high school, they are more likely to drop out before graduation (Harris & Sipay, 1990).

Accelerated Reader aims to establish a purpose for reading. Depending on how the program is implemented in schools, this purpose could be a class or exam grade, or could be prizes available after points are accumulated. Although AR's purpose was to create lifelong readers, it is not implemented in its true fashion. If teachers use Accelerated Reader as feedback on progress of kids, that is very useful. It is not, however, a stand alone program (Chenoweth, 2001).

Rather than placing so much emphasis on Accelerated Reader scores, teachers could allow students to engage in authentic assessments such as portfolios, survey children to determine what motivates them to read, allow students more choice in reading selections, and include various forms of assessment in the grading process (Groce & Groce, 2005).

It is important that teachers recognize their strengths and weaknesses in teaching reading and that they not simply follow a program because it exists and limits their need for providing reading instruction. The culprit may not be the programs per se, but that teachers follow them submissively, unreflectively, and unresponsively, whether or not readers benefit (Margolis & McCabe, 2006).

Comprehension monitoring, cooperative learning, using graphic and semantic organizers, and integrating ideas and generalizing from text are more useful pedagogical tools than the reliance on one supplemental computer-based reading program for all a student's reading needs (Johnson & Howard, 2003).

The bottom line is that although Accelerated Reader may provide students with options of books and may motivate them to read, the reasons for their interest are not beneficial, and their comprehension will not increase as a result. Unlike packaged reading programs, which are often replaced, principles travel with teachers (Margolis & McCabe, 2006). Motivational and research-based principles can be used to motivate struggling readers, and to produce engaged students who master content and skills, rather than exacerbating or ignoring the real problem at hand.

Teaching reading is tough, particularly for teachers who have not been trained in reading instruction. When mandated instruction frustrates struggling readers, eroding self-efficacy and motivation, teaching becomes even tougher. Simultaneously, the odds of improving students' reading skills drops sharply (Margolis & McCabe, 2006).

By applying principles of motivation and strengthening classroom function and insight, skilled teachers can increase the odds of helping struggling readers (Margolis & McCabe, 2006). Furthermore, training teachers in reading instruction and evaluating currently implemented reading programs may raise a red flag that signals the reasons behind the presently alarming literacy deficit rates.

CHAPTER THREE

Methodology

Introduction

This study investigated the impact of the AR program on ninth grade Reading

TAKS pass rates, as well as the variance in reading programs for purposefully selected

ninth grade populations. This chapter will discuss the methodology for the study, as

outlined in chapter 1.

Research Questions

The research questions for this study were:

- Are there differences in Reading TAKS pass rates for schools that use the

  Accelerated Reader program for ninth grade as compared to those who do not?

  - How is the Accelerated Reader program implemented in schools that use

    the program?

  - Is there a relationship between AR and ninth grade Reading TAKS pass

    rates?

- How is reading taught at the secondary level in schools selected for the study?

  - What strategies are used within the English classroom to improve reading

    skills and comprehension for ninth graders?

  - Do other content area teachers focus on any reading strategies to assist

    ninth graders in their reading skills?

  - Is there a variance among reading programs for ninth graders?

o   Is there a relationship between reading programs and ninth grade Reading
    TAKS pass rates?

o   What is the role of AR in the overall reading program in schools that use
    AR?

Participants

For this study, ninth grade populations were purposefully selected from ten

Central Texas schools. High schools were selected from districts in Central Texas as

found on the TEA website and internet searches, primarily due to the convenience of this

sample. The ninth grade population for each high school was then found on the Standard

Enrollment Reports listed on the TEA web page. After schools were contacted to find out

if AR was implemented, it was noted that schools with larger ninth grade populations did

not implement the Accelerated Reader program. For this reason, the decision was made

to limit this study to schools with ninth grade populations of 175 or less. More research

was done from the archived data available on the TEA website to identify each ninth

grade population's size, demographics, and socioeconomic status makeup. Finally, a

search was made to find out whether each school was located in an urban (population of

50,000 or more) or rural (population of less than 50,000) area (National Agricultural

Library, 2005). Each school chosen for the study was a rural school.

From the information found in this search, five schools with the AR program were

matched as closely as possible with five schools that did not use the AR program, based

on similarities of demographics, size, and socioeconomic status. Socioeconomic status

was determined by locating the percent of the school's population that was eligible for

free and reduced lunches, which was available on the TEA website. Ninth grade Reading

TAKS pass rates from 2007 were retrieved from the TEA website for all ten schools, and pass rates were compared between the selected AR schools and their matched non-AR schools. A Wilcoxon Rank Sum test was done to demonstrate the comparison in pass rates.

Schools purposefully selected to be included in the study were coded as follows:

School #1 that implemented AR is labeled as Y1.

School #2 that implemented AR is labeled Y2.

School #3 that implemented AR is labeled Y3.

School #4 that implemented AR is labeled Y4.

School #5 that implemented AR is labeled Y5.

School #1 that did not implement AR is labeled N1.

School #2 that did not implement AR is labeled N2.

School #3 that did not implement AR is labeled N3.

School #4 that did not implement AR is labeled N4.

School #5 that did not implement AR is labeled N5.

The ninth grade population for each school purposely chosen for the study can be found below in Table 1. For each pairing of schools, one school implemented the AR program, and one did not. Schools were not only matched based on their similarities in population size, but on their demographics and socioeconomic status, as well. Table 3 demonstrates demographics for each ninth grade population chosen for the study.

Table 1

Populations of Chosen Schools

School code	9th grade pop.
Y1	45
Y2	55
Y3	42
Y4	93
Y5	155
N1	175
N2	39
N3	46
N4	98
N5	115

Note: From "TEA Standard Reports," 2007, from
http://www.tea.state.tx.us/adhocrpt/Standard_Reports.html.

Table 2

School Socioeconomic Status

School	Percent of district receiving free and reduced lunch
Y1	58%
Y2	17%
Y3	45%
Y4	31%
Y5	19%
N1	22%
N2	49%
N3	51%
N4	67%
N5	41%

Note: From "TEA Standard Reports," 2007, from
http://www.tea.state.tx.us/adhocrpt/Standard_Reports.html.

The percentage of ninth grade students eligible for free and reduced lunch for

each school was not available, so the percentage of students eligible for free and reduced

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lunch within the district was used instead. This information represents the population's

socioeconomic status and can be found in Table 2.

Table 3

Ethnicity of Ninth Graders used in Study

School	% African American	% Hispanic	% Native American	% Asian	% White
Y1	2.2	8.9	0	0	89
Y2	1.8	7.3	0	0	89
Y3	4.8	19	0	0	74
Y4	0	20	0	0	80
Y5	1.3	7.7	.6	.6	90
N1	.6	9.7	1.1	0	89
N2	2.5	15	0	0	82
N3	4.3	37	0	0	59
N4	1	47	0	0	52
N5	.9	22	0	0	77

Note: From "TEA Standard Report," 2007, from
http://www.tea.state.tx.us/adhocrpt/Standard_Reports.htm.

Specifically, schools were matched as illustrated in Table 4 below:

Table 4

Pairing of schools for comparison of pass rates

Y1 compared with N2
Y2 compared with N3
Y3 compared with N4
Y4 compared with N5
Y5 compared with N1

Compromises were made in pairing schools, due to differences in ninth grade

populations, the number of ninth grade students eligible for free and reduced lunch, and

the number of students of each ethnicity. However, each school that used AR was paired as closely as possible to a school that did not, using the numbers of ninth graders, eligibility for free and reduced lunch, and ethnicity information.

Texas Assessment of Knowledge and Skills

TAKS went into effect in the 2002-2003 school year. The TAKS test is designed to measure the extent to which a student has learned and is able to apply the knowledge and skills at each tested grade level. The TAKS measures the statewide curriculum in reading for grades 3-9, in writing for grades 4 and 7, in English Language Arts at grades 10 and 11, in mathematics for grades 3-11, in science in grades 5, 10, and 11, and social studies at grades 8, 10, and 11. Satisfactory performance on the TAKS at grade 11 is required to earn a high school diploma (TEA, 2007). Testing takes place statewide every January through March (TEA, 2007). Pearson Educational Measurement contracts with TEA to provide scoring of TAKS tests. All schools administer the TAKS on dates predetermined by TEA. A timeline for past and current testing in Texas can be found in the Appendices.

Every TAKS test is directly aligned to the TEKS (Texas Essential Knowledge and Skills), which comprises the state curriculum for teachers of every subject area at every grade level. The TEKS are the state objectives specific to grade levels and subjects taught. These objectives are derived directly from subject area professional organizations, like NCTE and NCTM, then teachers and administrators on the state level determined how these objectives would be met for Texas.

Teachers, test development specialists, and TEA staff members worked together to develop the TEKS and the TAKS tests. Committees made up of assessment and curriculum content-area specialists from TEA reviewed prototype TAKS items in the fall of 2000 in preparation for external educator review committees. Field tests were conducted in April and May of 2002, and TAKS is now the official testing mechanism for the state of Texas. Written responses for the TAKS reading test are scored holistically by TEA-approved readers who must fulfill the following criteria: have a Bachelor's degree in Education, English, or a related field, and preferably teaching experience (Technical Digest, 2004-2005). More information regarding TAKS development and scoring can be found in Chapter 2.

There are three ninth grade reading TAKS objectives which students are expected to achieve before the TAKS is taken.

- Objective 1: The student will demonstrate a basic understanding of culturally diverse written texts.

- Objective 2: The student will demonstrate an understanding of the effects of literary elements and techniques in culturally diverse written texts.

- Objective 3: The student will demonstrate the ability to analyze and critically evaluate culturally diverse written texts and visual representations (TEA, 2007).

Objectives 1,2, and 3 are assessed through multiple choice items and short answer questions. The number of items per objective on the 9th grade Reading TAKS is found in Table 5 below.

For Objective 1, students must show they have a basic understanding of the reading selections on the test. Students find the main idea, look for details, figure out

word meanings, and summarize passages. For Objective 2, students must be able to

recognize literary devices and their purposes to guide their understanding of the passage.

Such devices would include plot, theme, conflict, character development and setting.

Table 5

Breakdown of TAKS items

TAKS Objectives	Number of Items
Objective 1: Basic Understanding	9 multiple- choice items
Objective 2: Literary Elements	12 multiple-choice items, 1 open-ended item
Objective 3: Analysis and Critical Evaluation	12 multiple-choice items, 2 open-ended items
Total Number of Items	33 multiple choice items 3 open-ended reading items

Note: From "TAKS Information Booklet," 2007, from
http://www.tea.state.tx.us/student.assessment/taks/booklets/reading/g9.pdf

For Objective 3, students must have the ability to draw conclusions using the text,

make connections, and recognize techniques the author has used to develop the text

(TEA, 2007). Both Objective 2 and Objective 3 include open-ended, or short answer,

questions. For these questions, students are required to write a brief response based on

literary or expository selections. Items may be based on an individual selection or both

selections. Students have five lines to respond if the item is based on one selection, and

eight lines for both selections. Responses must generate clear, reasonable ideas about

various aspects about the text presented and include support of these ideas with relevant evidence from the text. Student responses are based on content, not writing conventions. Possible scores for the open ended items include 0 (insufficient), 1 (partially sufficient), 2 (sufficient), or 3 (exemplary). Students are allowed the use of a dictionary or thesaurus throughout the test (TEA, 2004).

The TAKS is administered every spring. Once the tests are scored, students receive a Confidential Student Report (CSR), detailing the results of the exam. Students receive an overall score for the test. In addition to their score, a report of the student's strengths and weaknesses are noted for each objective. Scores are reported by number of tested items, and number or correct items. A sample score sheet can be found in the Appendix. It is important to note that the passing score for the TAKS has not been determined until all students have taken the exam (TEA, 2007).

Procedures for Determining if a School Implemented AR

Schools, or districts when no school contact information was provided, were contacted by the researcher by phone or email to learn if the Accelerated Reader program was implemented for their ninth grade students. A sample email response can be found in the Appendices. Because some of the contacts took place toward the end of the school year and during the summer, principals or curriculum directors, depending on which information was provided on the school district's webpage, were contacted by email or telephone, or both. Either the administrator who had been contacted replied to the message, or the message was forwarded and responded to by another employee, based on their expertise in the reading program components or Accelerated Reader participation. Campus representatives ranged from principals, English teachers, English department

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heads, librarians, and Curriculum Directors. These interviews took place in May and June of 2007.

The central Texas high schools that had been contacted were then sorted by whether or not the Accelerated Reader program was implemented. Furthermore, sizes for these ninth grade populations were found on the TEA website using data from the 2006-2007 school year. Finding that very few schools with large ninth grade populations participated in the AR program, the researcher chose to use schools with ninth grade populations of 175 or less for this study. Of the schools with a population of 175 or less, the TEA website was again used to determine the socioeconomic status (free and reduced lunch eligibility) and demographics of each school. From all of the schools that met the criteria of a ninth grade population with 175 or less, ten schools were chosen. Based on initial interview information, five schools that used the Accelerated Reader program were chosen, and five were not. Schools that used the AR program were closely matched based on population, socioeconomic status, and demographics using information from the TEA website and school or district websites with schools that did not to strengthen the comparisons.

TAKS Data Collection and Analysis

All TAKS data is accessible by the public and available on the TEA website. Specifically, the number of ninth grade students who met the standard on the Reading TAKS from 2007 was used for this study. Ninth grade TAKS reading score information for spring 2007 was gathered from the TEA website for the chosen schools. After the scoring information for all ten schools was collected, a Wilcoxon Rank Sum Test was done to compare the number of ninth graders that met the TAKS standard on the ninth

grade Reading TAKS between the schools using the AR program and those that did not.

In addition, specific information regarding the makeup of the TAKS test items, the

expected skills being assessed, and the interpretation of TAKS scores was available here,

as well.

Procedures for Collecting Information about Campus Reading Programs

Second interviews were conducted with campus representatives for the ten

selected schools regarding the components of their ninth grade reading program and

whether or not they used AR. Most of the same representatives that had been contacted

previously were interviewed. However, in one case the representative was no longer

employed by the school district, and in two other cases, another name was provided of

someone who could provide more information. Questions were asked to learn the details

of AR implementation in the schools that employed the program, as well as to learn the

reading program components of all schools used in this study. Interviews took place by

phone or email, and a sample email interview response can be found in the Appendices.

Because schools differed in how AR was implemented and because each school

had unique reading program components, a researcher who replicated this study with

different schools may not receive the same results. Interviews were formatted so that all

only specific questions regarding AR implementation and reading programs in the

selected schools were asked.

The interview questions consisted of two sections: AR Implementation and

Reading Program. For schools that implemented the Accelerated Reader program,

questions were asked about the number of students who participated, the rewards for

participation, whether the program was a requirement or for recreational reading, and how long the program has been implemented at the school. For schools that did not implement the Accelerated Reader program, the campus representative was asked why this program was not used for their ninth grade students.

The second portion of the interview questions concerned the school's reading program. Questions specifically pertained to ninth graders, although many interviewees chose to provide an overview of the reading program for the entire school. All interviewees answered questions regarding the reading program, whether their school participated in the Accelerated Reader program or not. For this section, questions were asked about how reading skills were taught, what programs were available for additional help, and who was available to assist struggling readers. These specific questions were asked to gain insight into what reading assistance was available to students so that variance between reading programs could be compared and to determine the relationship between reading program components of the purposefully selected schools and their corresponding ninth grade Reading TAKS pass rates.

Interviews were conducted in a combination of phone and email formats to campus representatives from the selected schools to learn about the school's reading program and how the Accelerated Reader program was implemented (if used) at that school. Below is a list of the interview questions.

Interview Questions About the Ninth Grade Reading Program

> 1. What are the components of your reading program for ninth grade students?

> 2. What is done within the English classroom to improve reading skills and comprehension for ninth grade students?

3. Is there any summer reading required for students before they enter the ninth grade?

4. Are there incentives for students to read more than the required assignments for class?

5. Are students tracked for their reading/English classes according to their ability levels? If so, explain. (low level readers, average level readers, higher level readers)

6. Are there any programs in place to assist struggling readers? For advanced or above grade readers? If so, what are they?

7. Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills?

8. Does your campus have a designated reading teacher? Master Reading Teacher? Reading Specialist?

9. Do you have any other information that you think I should know about your campus reading program?

Interview Questions About Accelerated Reader Implementation

1. Is the Accelerated Reader program implemented for ninth grade students in your school?

2. Is participation required?

3. What percentage of ninth graders participate in the program?

4. What incentives are given for participation?

5. How is the program used/implemented?

6. How long has the school participated in the program?

7. Does your school plan to continue use of the program for ninth graders?

Questions for Schools Not Using Accelerated Reader

       1.   Why do they not use it?

Interviews were conducted in July 2007. Some representatives preferred email communication, while others were easier to contact by phone. Only one of the ten campus representatives did not complete the interview. Several attempts at contact were made, but no response was provided. However, the researcher decided to leave this school in the study because of its nonparticipation in AR and because of its similarities in demographics and population size with a school that did participate in AR. The interview questions are listed above. Interviewees whose schools used the Accelerated Reader program received both the questions regarding AR and those regarding the ninth grade reading program. Those schools who did not implement the AR program only received the questions regarding the reading program and an additional question about why their school did not use the AR program for their ninth grade students. There was no deviation in questions, nor were any questions added during the course of the interviews. All phone interviews took fifteen minutes or less to conduct. When interviews took place by phone, the researcher took notes to record answers to the questions. When interviews took place by email, campus representatives were sent interview questions, and responses were returned to the researcher by email.

Researcher Bias

As a student, the researcher attended a high school in Georgia that used the AR program. At that point, AR was not required and was being used to supplement instruction and motivate students to read. Years later, as an English teacher at the same high school, the rules for implementation had drastically changed, making the acquisition

of AR points a large portion of students' required English course grade. The researcher saw the attitudes of students regarding the program, experienced the frustrations of inadequate AR quizzes, and witnessed the very limited number of students who used the AR program for recreational reading. The researcher did, therefore, have her own opinion regarding the program. However, since the data being used was archived, and interviews were reported accurately, there was no opportunity for researcher bias to affect the results of the study.

Furthermore, there was no room for participant bias, as students were not contacted or observed. Only their school's ninth grade Reading TAKS pass rates, and they were not aware of the study at all. Interview information did not have an impact on the comparison between TAKS scores and AR schools, but instead gave the researcher more data to explain possible reasons for the results that were found.

CHAPTER FOUR

Results

This chapter will report the data collected as discussed in chapter 3. This chapter will be organized by individual research questions.

The research questions for this study were:

- Are there differences in Reading TAKS pass rates for schools that use the Accelerated Reader program for ninth grade as compared to those who do not?

  o How is the Accelerated Reader program implemented in schools that use the program?

  o Is there a relationship between AR and TAKS scores?

- How is reading taught at the secondary level in schools selected for the study?

  o What strategies are used within the English classroom to improve reading skills and comprehension for ninth graders?

  o Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills?

  o Is there a variance among reading programs for ninth graders?

  o Is there a relationship between reading programs and TAKS scores?

  o What is the role of AR in the overall reading program in schools that use AR?

Identification of Schools for Study

For this study, Central Texas schools were found on the TEA website. Region 12 and 13 schools were then chosen from this site, due to the convenience of this sample.

The total populations of ninth graders for each school in these two regions were located on the TEA website from the PEIMS (Public Education Information Management System) data collected by TEA. The researcher then obtained phone numbers or email addresses for each school from the school or district website, depending on what was available. Contacts ranged from principals, curriculum directors, English teachers, English teacher department heads, and librarians. These school representatives were then contacted by phone, email, or both and asked if the Accelerated Reader program was implemented at that school for ninth graders.

A total of 51 schools were contacted were then sorted into two categories: those that used the AR program, and those that did not. The researcher noticed that schools with ninth grade populations of more than 175 usually did not implement the Accelerated Reader program. To compare schools that used the AR program and schools that did not use the program, the researcher decided to use only schools in the study with ninth grade populations of 175 or less. This would provide schools with the AR program and schools not using the AR program whose TAKS pass rates could be compared. Once schools with a ninth grade population larger than 175 were eliminated, the TEA website was again used to obtain information on each school's socioeconomic status and demographic information. The researcher decided to represent the school's socioeconomic status based on the number of students eligible for free and reduced lunch. The researcher obtained information regarding the district's free and reduced lunch eligibility on the TEA website but did not find the individual schools' eligibility available. Therefore, the researcher decided to use the district's free and reduced lunch eligibility to represent the school's socioeconomic status. Of the original 51 schools surveyed about the use of AR, ten

schools were chosen, five with the AR program and five without. The five schools that

implemented the AR program were coded as Y1, Y2, Y3, Y4, and Y5, and the five

schools that did not use AR were coded as N1, N2, N3, N4, N5. Schools that used the AR

program were matched with schools that did not use AR based on ninth grade population,

socioeconomic status of the district, and demographics. The chart of matched schools is

found in Table 4.

Table 4

Pairing of Schools for Comparison of Scores

Y1 compared with N2
Y2 compared with N3
Y3 compared with N4
Y4 compared with N5
Y5 compared with N1

*Research Question 1: Are there differences in Reading TAKS pass rates
for schools that use the Accelerated Reader program for ninth grade as compared to
those who do not?*

TAKS Score Collection

To answer Research Question 1 for this study, the TEA website was accessed to

identify ninth grade Reading TAKS passing rates for each of the ten schools chosen..

This information was accessible to the public.

Because individual scores for students were not available, the researcher used the

number of students who met the passing standard for the test. To meet the passing

standard on the 2007 Grade 9 Reading TAKS test, students had to earn 28 out of 42 raw

score points. The raw score points were determined by adding the 33 multiple choice

points to the points earned from the 3 open ended questions. Since students could receive

a total of 9 raw score points for the open-ended questions and 33 total points for the multiple choice items, they could have a total of 42 raw score points on the test (TEA, 2007). Ninth grade Reading TAKS passing rates for each of the ten schools used in the study can be found in Table 6.

Table 6

Passing Rate for Chosen Schools

School	Number of Students Who Took Ninth Grade TAKS Reading Test	Number of Students who met Passing Standard	Percent of Students who met Passing Standard
Y1	42	39	93
Y2	53	53	100
Y3	34	33	97
Y4	85	79	93
Y5	120	113	94
N1	153	147	96
N2	32	30	94
N3	44	41	93
N4	84	78	93
N5	89	81	91

Note: From "TEA Standard Reports," from
http://www.tea.state.tx.us/adhocrpt/Standard_Reports.htm.

Column one lists the ten schools in the study. Column two lists the number of ninth grade students from each school that took the 2007 ninth grade Reading TAKS test. Column three lists the actual number of students who, of the total students who took the test listed in column two, met the passing standard for the ninth grade Reading TAKS test. Column four shows the percentage of students who met the passing standard for each school.

Table 7

Significance in Paired Schools Pass Rates

AR School	% Pass Rate	Non-AR Paired School	% Pass	Difference	P Value
Y1	93	N2	94	1	0.5000
Y2	100	N3	93	-7	0.5000
Y3	97	N4	93	-4	0.5000
Y4	93	N5	91	-2	0.5000
Y5	94	N1	96	2	0.5000

Table 7 displays the percentage of students that met the passing standard of the ninth grade Reading TAKS for each pair of schools. The Difference column represents the difference in TAKS pass rates for schools that use AR and schools that do not. A Wilcoxon Rank Sum test was run for each pair of schools. To perform the Wilcoxon Signed Rank test, the researcher created a column called "Difference" between AR and Non-AR. This was the data to be analyzed. Each pair had a p value of 0.5000. Because the alpha was .05, and each pair had a higher p value than this number, there is no significant difference in pass rates for each of the five schools using AR when compared to the school not using AR. Based on data in Table 7 and on the results from the Wilcoxon, there was no significant difference between the percentage of students who met the passing standard on the ninth grade Reading TAKS test in schools using AR (Y1, Y2, Y3, Y4, Y5) and schools that did not (N1, N2, N3, N4, N5).

*Research Question 1a: How is the Accelerated Reader program
implemented in schools that use the program?*

Second Interview Procedures

To address Research Question 1a for this study, second interviews were conducted with campus representatives from each of the ten purposefully selected

schools. Where the AR program was implemented, questions were asked regarding AR

implementation, and in schools where the AR program was not implemented,

representative were asked why the program was not used. Most of the same

representatives that were contacted during the first interview were also contacted for the

second interview. Interviews were conducted by email and telephone. If the interview

took place by email, the researcher sent a copy of all interview questions to the

representatives and received answers in return. If the interview took place by phone, the

researcher asked each of the questions and took notes on the responses given. Upon

completion of all interviews, the researcher typed and printed a copy of all interviews and

kept them with her research for the study. Interview questions are listed below for this

portion of the interview.

Summary of Responses to Interview Questions about AR Implementation

The interview questions asked regarding AR implementation were as follows:

A. Is the Accelerated Reader program implemented for ninth grade students in your school?

B. Is student participation in AR required?

C. What percentage of ninth graders participate in the program?

D. What incentives are given for participation?

E. How is the program used/implemented?

F. How long has the program been used?

G. Does your school plan to continue use of the program for ninth graders?

H. Why does your school not use the AR program?

Five schools in the study answered yes to question A, while five answered no. All five schools purposefully selected for this study that implemented the AR program for their ninth grade students required participation by all students in the AR program and answered question B with a "Yes." To question C, schools Y2, Y3, Y4, and Y5 answered that "All" or "100%" of ninth grade students participated in the program, since participation was required. School Y1 estimated 85% or 2/3 of the students actually participated in the program, although AR participation was required. When asked Question D, each of the five schools answered differently. Their responses are listed below.

a. School Y2 answered "extra credit" was given for students who read more than the required amount.

b. Schools Y1, Y3, Y4, and Y5 answered that "grades" were the incentive for AR participation. School Y4 requires 10 AR points per semester, and the AR points were used to determine 15% of a students' six weeks grade. School Y1 elaborated that AR quiz grades are used as part of the English or Reading class. School Y5 simply answered that "grades" were the incentive, but specifics were not given.

c. The campus representative for School Y3 explained the incentives for AR participation in her school as follows: "Once you reach your goal and have all your points for your grade, you then may read anything of your choosing. It does not have to be from the selected reading list. Special Education students and kids at risk may choose their book because our goal is for them to read and be a part of the program. AR can also boost

your grade if you get all of your points, so there is a desire to make good grades and this is one of the ways." This school also required AR participation as 15% of the student's English grade, and the representative further explained that they felt "If the student chooses not to read and take tests, most likely they will not pass."

All five schools used grades as an incentive for AR participation, whether through extra credit or through a percentage of the students' English course grade. Question E asked how the AR program is implemented. To this question, each school responded differently. Their answers were as follows:

a. School Y2 answered that the program's implementation "Depended on class, points and level, and length if they are struggling readers."

b. Schools Y1 and Y4 repeated that the program was used to determine class grades.

c. School Y3 explained that, "AR is used for the entire district. We start AR so young that kids are really used to the program by the time they get to 9th grade." This representative felt the "downfall is that kids are tired of AR by the time they get to ninth grade, but that the positive side of AR was that the TAKS scores were very good and their students are usually ahead of others as they enter college." This school uses an AR test average as a test grade each six weeks. "Students are required to fill out a 4x6 note card with specific information that must be turned in prior to taking an AR test. No two students are allowed to read the same AR book within a six weeks period. Independent reading is 15% of the student's grade per 6

weeks. Students may read ahead, and their points may carry over to the next grading period."

    d.   School Y5 used a combination of reading logs, individual goals for struggling readers, extra rewards for students who met their AR reading goals, and 20% of a student's grade being tied to AR as the high school's AR implementation procedure.

All five schools used student participation in the AR program to determine course grades.

Question F asked about the amount of time the AR program has been used on the campus for ninth graders. There was a consensus among the responses for this question. Specifically, Schools Y1, Y2, Y3, and Y4 have used the program for ten years or more. School Y5 has used the program for over fifteen years. Question G asked whether or not the school planned to continue AR use. All five schools responded that they would continue use of the AR program. School Y5 added that they may choose to "revamp" how the program is currently being used.

Schools that did not use the AR program were asked Question H, which questioned the school's reason for not using AR. School N1 responded that they did not know why the program is not used. School N4 explained that STAR testing component of AR was used, but only as a testing device. They further explained that their school did not agree with the leveling of books in the AR program, and that also their school did not have funding for incentives. School N5 explained that the AR program had never been used in their district on the high school level, and that the middle school was disgruntled

with its use because it was not a reading program, and AR did not use higher thinking questions. School N2 did not reply.

Research Question 1b: Is there a relationship between AR and TAKS scores?

To answer Research Question 1b, TAKS passing rates were compared to AR use. Pass rates from all five schools that used AR were combined and compared to pass rates of all five schools that did not use AR. Assistance was received from the Baylor Statistics department in determining appropriate statistical instruments for comparing these rates. Because the sample size of the study was small, a Wilcoxon Rank Sum test was recommended. This statistical test was administered using JMP. The purpose of this statistical test was to learn if there was a significant difference in the mean of students passing the ninth grade Reading TAKS test of schools using the AR program and schools that did not.

Results of Wilcoxon Rank Sum Test

A Wilcoxon Rank Sum Test is generally used in nonparametric statistics to compare the locations of two populations, to determine if one population has shifted with respect to another. The method employed is a sum of ranks comparison (Wilcoxon Rank Sum Test, 2008). The Wilcoxon test was run using the number of students who passed the TAKS test from schools using AR and those that did not use the AR program. The test was run in the JMP program, version 6, with assistance from two Baylor Statistics Graduate students. Since the p value (.0625) for the assigned rank is greater than the expected .05, there was no evidence to suggest that population medians of the two

variables differ, as shown in Table 8. In other words, the pass rates of schools using AR

were not significantly different from pass rates of schools not using AR.

Table 8

Wilcoxon Rank Sum Results Histogram
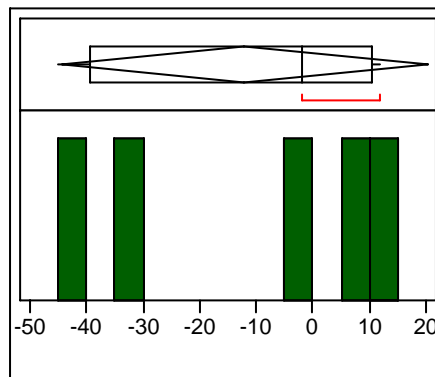
Table 8 shows a histogram fitted to the tabulated data. In this case, what is seen in

Table 8 is the "Difference" column. Table 8 is called a box lot and is used to represent

the sample quantiles: 25%, the median, and the 75% quantile.

Table 9

Mean, Difference, and Standard Deviation Results from Wilcoxon Test

Mean	-12
Std Dev	25.932605
Std Err Mean	11.597414
N	5
Hypothesized Value	0
Actual Estimate	-12
Df	4
Std Dev	25.9326

With the Wilcoxon Rank Sum Test, the researcher was testing for the equal means

of Ho with a difference of zero (means→Ho: difference of zero). As shown in Table 9,

the researcher left the hypothesized mean in the JMP program as 0. Df is an acronym for

degrees of freedom and is equal to the difference between the sample size and the number

one (Df=N-1=4).

Table 10

Probability that AR Makes a Difference in Pass Rates on the Reading TAKS

Designated Result	T Test	Signed-Rank
Test Statistic	-1.0347	-2.5000
Prob > |t|	0.3593	0.6250
Prob > t	0.8204	0.6875
Prob < t	0.1796	0.3125

In Table 10, the p value is based off of the alternative hypothesis. The researcher

was testing to determine if the student's TAKS pass rates of students using the AR

program were superior to the students' TAKS scores not using the AR program. Hence,

the researcher would focus on Prob.t. The p value=0.6875, which is greater than the

significance level of alpha=.05. Therefore, there was no evidence of greater performance

between students using the AR program and students not using the AR program.

Table 11

Wilcoxon Representation of Students' T Distribution
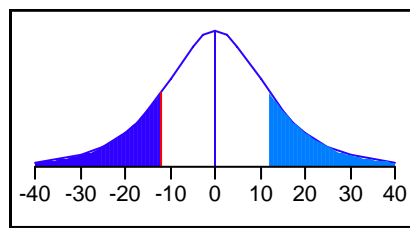
Table 11 represents the students' t distribution. The shaded areas are referred to as the critical regions. Since the signed rank test statistic (-2.50) fell outside of those two critical regions, the researcher concluded that the Null hypothesis was correct. In other words, there were no differences between both population medians. Again, this Table agrees with the determination that there is no significant difference in pass rate between ninth grade students on the Reading TAKS test using AR and those not using AR.

Research Question 2: How is reading taught at the secondary level in schools selected for the study?

Interviews Regarding Ninth Grade Reading Programs

Research Question 2 asked how reading was taught on the secondary level in the ten schools chosen for the study. To address this, more interview questions were asked of each of the ten schools used. In addition to asking about AR implementation, the second interviews with campus representatives included questions about each school's ninth grade reading program. Interview questions are listed as follows for this portion of the interview.

A. Is there any summer reading required for students before they enter ninth grade?

B. Are there incentives for students to read more than the required assignments for class?

C. Are students tracked for their reading/English classes according to their ability levels? Explain.

D. Are there any programs in place to assist struggling readers? For advanced or above grade readers?

E. Does your campus have a designated Reading Teacher? Master Reading Teacher? Reading Specialist?

F. Is there any other information that I should know in relation to the campus reading program?

G. What strategies are used within the English classroom to improve reading skills and comprehension for ninth graders?

H. Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills?

I. What are the components of your reading program for ninth grade students?

These questions were asked to gain insight into what reading assistance was available to students so that variance between school reading programs could be compared and to learn if there was a relationship between reading program components of the purposefully selected schools and their corresponding TAKS pass rate. All schools were asked these questions, whether the AR program was implemented at their school or not. In one case, the representative for School N2 who was contacted initially no longer worked for the school district, so other contact attempts were made. However, no responses regarding reading program questions were ever received by any representative from this school. So, only nine responses to interview questions will be reported below.

Summary of Interview Responses about Ninth Grade Reading Programs

Responses to Interview Question A, which concerned summer reading, varied slightly and are summarized below.

a. Schools Y2, Y4, Y5, N3, N4, and N5 of the nine schools responding answered no, that summer reading was not required.

b. Schools Y1 and N1 responded that summer reading was required for students who were entering pre-AP courses, but no further information on the type of reading required was provided.

c. School Y3 responded that, "Students are required to read two novels over the summer and have to complete some type of writing assignment, like comparing and contrasting characters from each novel."

In summary, only one of the schools chosen for the study required students entering the ninth grade to complete summer reading. The exception was students entering pre-AP courses, and very little information was provided regarding their reading requirement.

Interview Question B asked about incentives implemented to increase reading motivation for students. Responses to this question varied somewhat, but were almost evenly distributed between those that did provide incentives and those that did not. Responses were as follows:

a. Schools Y1, N1, N3, N4, and N5 responded that there were no additional incentives provided to encourage students to read.

b. Four schools responded that incentives were available. These incentives varied, however.

c. School Y5 provided drawings on a regular basis for various prizes and also provided a library scholarship for a top reader.

d. School Y2 awarded students with extra credit for reading more than the required amount.

e. School Y4 provided both a school incentive and individual teacher incentives. At this school, teacher incentives vary based on individual teacher preference. Also, students are given a six week goal to meet, and students who meet every six week reading goal go on a school trip at the end of the year.

g. School Y3 responded with, "Yes, once they have their points for each six week period they can stop reading for points. They can then choose their own book or story that is not on the AR list to read, which then becomes pleasure reading."

In summary, campuses that gave incentives for earning either required or additional AR points provided these rewards on an individual, classroom, and school wide level. These incentives offered varied by school.

Question C asked schools about tracking of English students in ninth grade. Responses are summarized below.

a. Schools Y2, Y5, and N4 either tracked their ninth grade students by as Pre-AP and "regular" or grouped students by diploma choice.

b. Schools Y1, Y3, Y4, N1, N3, and N5 did not track students in English classes. Four of these six specifically stated that their students are "mixed" unless they are in AP or pre-AP, and this usually does not occur until after ninth grade.

In summary, the only tracking for English classes that occurred for ninth graders at any of the ten schools was for students attending pre-AP or AP English courses or high school diploma choice.

To address Question D, several responses indicated that no additional help was provided for ninth grade struggling readers. For those schools that did provide assistance, their responses are outlined below.

a. Schools Y1, N1, and N4 did not have any programs to assist struggling or advanced readers in the ninth grade.

b. School Y5 provided reading specialists and individualizes reading instruction.

c. Schools Y2, Y3, and N3 used content mastery programs. School Y2 also used special education instruction to assist struggling readers. School N3 supplemented content mastery with books on tape.

d. Schools Y4 and N5 implemented a Grand Central Station lab to assist struggling readers. Both schools using this program ensure that there is constant communication between teachers and parents and among teachers to discuss students' progress. School N5 automatically pulled students who are failing a class out of an elective and places them in this program for additional help.

e. For advanced readers, the only programs offered were Gifted and Talented or Advanced Placement among the five schools that addressed these students.

In summary, the schools that did address struggling ninth grade readers provided pull out programs in the form of Grand Central Station or content mastery programs. Most schools, however, did not employ a Master Reading Teacher or Reading Specialist. Gifted and Talented and Advanced Placement courses were options for advanced readers.

At the high school level, most campuses involved in this study did not provide additional Reading Teachers to assist struggling readers. Question E asked if Reading Teachers, whether Master Reading Teachers or Reading Specialists, were on campus for the ninth grade students. There was some variance to answers, however. Responses are listed below.

a. Schools Y2, Y4, N1, N3, and N4 did not provide a Reading Teacher, Master Reading Teacher, or Reading Specialist for their ninth grade students.

b. School Y5 employed two Reading Specialists and two Master Reading Teachers to assist students with reading.

c. The librarian at schools Y1 and Y3 was either a Reading Specialist or Master Reading Teacher, but is not involved in the classroom. Her role in both cases is to have input into the curriculum and provide teaching materials and resources to assist teachers with their reading instruction.

In summary, only one school employed a Reading Specialist or Master Reading teacher that actually assisted with classroom reading instruction. When asked in Question F for additional information on the school's ninth grade reading program, the following responses were given.

a. Schools Y1, Y2, Y4, Y5, N1, and N3 did not provide additional information regarding their campus reading program.

b. School N4 felt that much more time should be spent on reading instruction.

c. School N5 explained that "the biggest challenge is that most teachers think of reading instruction as only being K-3, or that something is wrong with the kid and not them. Teachers think if the child can't read by the time they get to them, it's not their program to teach. Teachers are not taught how to deal with reading or teaching reading."

d. In reference to the AR program, school Y3 explained that most students, "didn't take AR seriously, but now that it is 15% of the students' grade, kids learn to test well over reading, and I think it is because they are more focused and know they have to do it."

The school contacts who volunteered additional information on their reading program insisted that students didn't take AR seriously, teachers didn't think they should be responsible for teaching reading, or that more time should be spent on reading instruction overall.

Interview Questions G, H, and I are both research questions and interview questions. Responses to these interview questions will be reported by research question.

Research Question 2a: What strategies are used within the English classroom to improve reading skills and comprehension for ninth graders?

Interview Question about Reading Strategies

Continuing the interviews regarding secondary reading programs for the ten schools chosen for this study, campus representatives were asked Research Question 2a (Interview Question G). This question asked, "What strategies are used within the English classroom to improve reading skills and comprehension for ninth graders?" Responses can be found in the following section.

Summary of Responses on Ninth Grade Reading Strategies

There was a wide range of responses for Research Question 2a. Answers are listed below for each of the nine schools who responded.

a. Schools Y3 and N4 replied that continued practice and note taking were the only strategies used to improve reading skills in the English classroom.

b. School Y1 responded that they used a variety of assessments and activities designed to improve reading and comprehension.

c. School N1 responded that teachers were allowed to, "fork through the literature and use what is important."

d. School N5 uses a KIRS wall scanner that allows text to be scanned and read aloud.

e. School Y5 focused the lessons on main idea and assisting with comprehension, includes reading and class discussion in instructional time, and provided TAKS preparation daily.

f. School N3 also incorporated class reading and discussion time in the lesson, but supplemented it with post-it note strategies and asked students to write down words they did not know.

g. School Y4 used the AR program to provide basic knowledge and comprehension instruction, but then implemented analysis and higher level thinking strategies in the English classroom.

h. School Y2 incorporated a lot of grammar, literary elements, TAKS preparation, and class discussion into daily lessons to improve reading skills.

In summary, all schools incorporated a variety of classroom teaching strategies to increase reading skills within the English classroom.

Research Question 2b: Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills?

Interview Question about Content Area Reading

Research Question 2b (Interview Question H) asked, "Do other content area teachers focus on any reading strategies to assist ninth graders with their reading skills?" Responses are summarized below.

Summary of Responses about Content Area Reading

Most of the schools in the study focused on content area reading skills, although the amount of focus varied. Responses are listed below.

a. Six schools addressed reading skills in content area classrooms. School N4 responded that the content area teachers address reading strategies. Although the strategies were "not very structured, they are addressed through lesson plans." School N5 responded that, "there is a push for vocabulary development across the curriculum and understanding how that impacts reading." School Y5 responded that they recently implemented a new initiative and would be providing staff development regarding increased reading emphasis in content area classrooms. School N3 responded that only the social studies classroom emphasized reading skills. Finally, schools Y3 and Y4 answered that reading for comprehension and analytical ability were stressed in all classrooms.

b. Schools Y1, Y2, and N1 responded that their content area teachers did not focus on reading strategies.

In summary, three of ten schools did not address reading skills in content area classrooms. The six schools that did focus on reading strategies in content classrooms, emphasised either vocabulary development or reading comprehension.

Research Question 2c: Is there a variance among reading programs for ninth graders?

Analysis of Reading Program Data

Research Question 2c asked, "Is there a variance among reading programs for ninth graders?" To address this question, Interview Question I was asked: "What are the components of your reading program for ninth grade students?" Some campus representatives needed an explanation of what the researcher meant by "reading program" before being able to provide an answer. The researcher defined "reading program" as any strategy or program that is used to teach or enhance reading skills for students. Responses for this question are listed, below.

Results of Reading Program Data

Most schools responded that they did not have a "reading program," and instead referred to the English classroom itself as the ninth grade reading program.

a. Schools Y1, Y2, Y4, Y5, N3, N4, and N5 replied that their only program was the English classroom instruction, and emphasized that writing, reading, speaking, and language were all integrated in the classroom. Teachers are able to make selections on what is integrated or discussed.

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For school Y4, classroom instruction is supplemented by 47 minutes allotted for reading and study skills, for grades 9-12. AR reading is incorporated into this reading time.

b. School N1 replied that the reading class was for anyone, in any grade, who had failed TAKS the previous year.

c. School Y3 categorized the AR program as their school's reading program.

It is important to note again that, although these are the responses to the specific interview question regarding the ninth grade reading program, a reading program actually consists of anything that is used to assist readers. Therefore, all answers to all above questions would be considered aspects of each campus's ninth grade reading program.

Research Question 2d: Is there a relationship between reading programs and TAKS pass rates?

Interview and TAKS Data Collection

Research Question 2d asks, "Is there a relationship between reading programs and TAKS pass rates?" To answer this question, interviews were conducted with campus representatives for all ten schools participating in the study regarding components of their ninth grade reading program through a combination of emails and phone calls. Interview questions and their responses can be found previously in this chapter. In addition, the number of students who took the ninth grade Reading TAKS for each school in the study and the number of students who met the passing standard for each school were obtained from the TEA website.

Summary of Reading Program and TAKS Pass Rate Information

A comparison of students who met the standard for ninth grade TAKS Reading

can be found in Table 6. Table 6 is repeated here for the convenience of the reader.

Details regarding the reading program for these schools are summarized in Table 12

below.

Table 6

Passing Rate for Chosen Schools

School	Number of Students Who Took Ninth Grade TAKS Reading Test	Number of Students who met Passing Standard	Percent of Students who met Passing Standard
Y1	42	39	93
Y2	53	53	100
Y3	34	33	97
Y4	85	79	93
Y5	120	113	94
N1	153	147	96
N2	32	30	94
N3	44	41	93
N4	84	78	93
N5	89	81	91

Note: From "TEA Standard Reports," 2007, from
http://www.tea.state.tx.us/adhocrpt/Standard_Reports.htm.

If the school incorporated a pull out program for struggling readers, this is

indicated in the column labeled "Pull out." For the purposes of Table 12, the use of Grand

Central Station or a content mastery program will be considered a pull out program. If a

school relied on instruction in traditional English classrooms, provided content area

reading strategies, employed reading teachers, or alloted extra reading time during the school day, this information is indicated in the designated column. Because individual student scores were not available, it is difficult to determine to what extent each reading program component is or is not significant to the school's ninth grade reading achievement.

Table 12

Reading Components and Passing Percentages

School	% Met	Pull out	English	Content	Reading Teachers	Extra Reading
Y1	93		X		X	
Y2	100	X	X			
Y3	97	X	X	X	X	
Y4	93	X	X	X		X
Y5	94		X	X	X	
N1	96	X	X			
N2	94					
N3	93	X	X	X		
N4	93		X	X		
N5	91	X	X	X		

Note: From "TEA Standard Reports," 2007, from
http://www.tea.state.tx.us/adhocrpt/Standard_REports.htm.

Reading program information for School N2 was not included on the chart because this is the school whose representative did not respond to requests for an interview. Schools Y2, Y3, Y4, N1, N3, and N5 provided some kind of pullout or additional reading class for struggling ninth grade readers. All schools interviewed rely at least partly on the English classroom to teach reading strategies to ninth grade students. Schools Y3, Y4, Y5, N3, N4, and N5 addressed reading strategies in content area classrooms. Schools Y1, Y3, and Y5 provided certified Reading Specialists or Master Reading Teachers on their campus. For schools Y1 and Y3, this employee was the

librarian. Only one of the nine schools, school Y4, incorporated additional reading time for all students as part of the daily schedule.

Research Question 2e: What is the role of AR in the overall reading program in schools that use AR?

Interview Questions Regarding AR

Research Question 2e asked, "What is the role of AR in the overall reading program in schools that use AR?" The results below are based on previous interview question responses.

Summary of Interview Responses from AR Schools

School Y3 explained that the AR program *was* the reading program for ninth graders. However, four of five schools participating in the Accelerated Reader program used the program to supplement English classroom instruction. In some cases, AR was only one of several strategies or programs used to develop reading skills for ninth grade students. All five schools participating in the AR program required participation by students. Therefore, the AR program was a part of the overall ninth grade reading program. Implementation of the AR program varied, but because AR was required and three of five schools in the study that used the program included AR participation in students' grades, it would be considered an important part of the school's reading program.

Summary

Although the sample size for this study was only ten schools, there were few similarities both in AR implementation and ninth grade reading programs among these

ten schools. However, the percentage of students who met the TAKS passing standard among these ten schools was very similar. Consequently, it is difficult to determine how much each form of reading instruction impacts TAKS scores. Also, since individual test scores or test mean scores were not available to the researcher, it was not possible to make assumptions about the impact that any form of reading instruction had on TAKS reading pass rates or the role that the reading program may play in raising students' reading achievement for any given school. Finally, although only half of the schools in this study used the AR program, and even though there was a wide range of AR implementation, the results of the Wilcoxon Rank Sum test indicated that there was no statistically significant difference in the pass rates of schools using the AR program for ninth grade students and those that do not use the AR program.

CHAPTER FIVE

Discussion

Declines in reading progress have demonstrable social, economic, cultural, and civic implications. As Americans, especially young Americans, read less, they read less well. Because they read less well, they have lower levels of academic achievement. The habit of daily reading overwhelmingly correlates with better reading skills and higher academic achievement. On the other hand, poor reading skills correlate with lower levels of financial and job success (National Endowment for the Arts, 2007).

With the advent of more reading programs and federal initiatives like No Child Left Behind and Reading First, the importance of literacy skills is a daily focus in today's classrooms. However, elementary classrooms focus on reading more than any other grade level. Middle and upper grades teachers focus less on teaching reading skills and more on expectations that students already have these skills before entering their classes. As less attention is paid to teaching reading at these junctures in a student's academic career, students reduce their reading time and their reading interest.

Accelerated Reader is a reading management program that was intended to address this problem by motivating students to become lifelong readers. Implementation of the program varies by district and sometimes even by school. Because the program also claims to increase reading comprehension and test scores (Renaissance Learning, 2007), this study compared ninth grade Reading TAKS pass rates for schools that used the Accelerated Reader program and those that did not, while also researching the ninth grade reading programs of each of the ten Central Texas schools chosen for the study.

Significance of the Study

Accelerated Reader is not meant to be a stand alone reading program (Chenoweth, 2001). Instead, AR is a reading management program (Krashen & Rogers, 2003). AR was designed as a program with the goal of increasing student motivation for recreational reading and to be used to supplement classroom reading instruction.

However, reading teachers, pull out programs, and additional reading instruction for struggling readers often end with middle school (Guth & Heaney, 1998). Many teachers on the secondary level assume that students should already be skilled readers by the time they enter high school, and therefore do not focus on teaching reading skills. Because reading classes and intervention programs often do not exist for secondary readers, Accelerated Reader has become the answer for some secondary schools. AR was meant to be a supplemental program, yet it often has no reading instruction to supplement. As a result, AR is not being implemented as it was originally intended. Instead, it is being used in some cases as the entire school reading program. In other cases, participation is required and students' AR quiz grades are a large determining factor of their course grades.

Very little research has been conducted regarding the effectiveness of AR with high school students. For this reason, and because of an increased emphasis in raising test scores, it was important to investigate the effectiveness of AR on ninth grade student achievement. Because schools are now accountable for students' reading ability more than ever with the increase in state and district testing, most of which requires reading comprehension ability, it was important to compare pass rates of one such test of schools using the AR program to those of schools not using the AR program. Specifically, this

study compared the pass rates of 2007 ninth grade Reading TAKS tests for schools using AR and schools that did not.

Findings

Central Texas schools were located on the TEA website and then narrowed down to schools in Regions 12 and 13. Of the schools in this area, over 51 schools were contacted to learn if the school used the AR program. Ninth grade student population, demographics, and socioeconomic status information was found for each of the 51 schools from these two Regions found on the TEA website. Ten schools were chosen from the 51 for several reasons. Most schools with ninth grade populations of 175 or more did not use the AR program. Therefore, the selection of schools was narrowed down to schools with ninth grade populations of 175 or less. Of these remaining schools, five were chosen that used the AR program and five were chosen that did not. Schools with the AR program were paired with schools that did not use the AR program, based on similarities in demographics, ninth grade population, and socioeconomic status.

Campus representatives, including principals, curriculum directors, English teachers, English teacher department heads, and librarians, were contacted for interviews. Schools with the AR program were asked questions about AR implementation. Schools not using the program were asked why the AR program was not implemented. All ten schools were asked about the overall ninth grade reading program.

Of the ten schools chosen for this study, five schools implemented the Accelerated Reader program. All five schools required students to participate in the program, while one school explained that probably only 85% of students at the school actually participated in the AR program. Every school using AR in this study used the

program to determine student's English class grades in some fashion. One school gave extra credit to students as incentives for reading more than the required amount, while others provided prize drawings or field trips as incentives for achieving the required number of AR points. However, all schools that used the AR program did not provide additional incentives besides grades for participating in the program. Four schools had used the program for ten years or more, and one had used the AR program for fifteen years or more.

A Wilcoxon Rank Sum Test was run between paired schools to compare ninth grade Reading TAKS pass rates for schools using AR and those that did not. No significant difference existed between the pass rates of schools using AR and those not using the program.

Interviews with campus representatives regarding ninth grade reading programs are summarized as follows. One school did not respond to any interview questions about their school's ninth grade reading program.

None of the nine schools responding to the interviews required summer reading, unless students were entering an Advanced Placement classroom as a ninth grader. Students were not tracked in English classrooms for any of the nine schools unless they were participating in a pre-AP or AP English class. However, these classes usually did not take place in the ninth grade. Three of the nine schools did not provide assistance for ninth grade struggling readers. Three schools used content mastery programs and two used Grand Central station as a means to assist struggling ninth grade readers.

Only five of the nine schools addressed above average readers. These readers were provided with Gifted and Talented or pre-AP classes. Six of the nine schools did not

employ a Master Reading Teacher or Reading Specialist. One school did, and the other two schools employed a librarian that was certified in one of these two areas. One school felt that more time should be spent on reading instruction, and one school explained that teachers did not think it was their job to teach reading to ninth graders. All nine schools relied on their English classrooms in some capacity to provide the reading strategies needed to improve reading comprehension.

Six of nine schools addressed reading strategies in content area classrooms. One school labeled the AR program as their school's reading program. One school provided a reading class for students who had failed TAKS the previous year.

In summary, there were a number of similarities in the way schools implemented the AR program. The forms in which additional reading instruction were provided to ninth grade students, however, varied somewhat.

Recommendations for Further Research

1) Most research studies regarding the Accelerated Reader program involve elementary or middle school students. Very few studies have been done with sample high school populations. Because high schools still use this program across the country, it is important that more research be done to determine its impact on reading achievement for these students.

2) After investigating the use of the AR program in Central Texas schools, the researcher learned that very few schools in the chosen areas of Regions 12 and 13 use the program on the ninth grade level. Therefore, the sample size of this

study was small. It is recommended that further research on AR in ninth grade use a larger sample population, perhaps statewide. A larger scope of data would provide more statistical information on the impact of the AR program. Also, this would provide more information regarding the variation between ninth grade reading programs in the state of Texas.

3) Examining middle school or eighth grade reading programs may be helpful in providing more insight into understanding ninth grade Reading TAKS scores since a student's reading and skill ability is cumulative.

4) Nationwide Accelerated Reader studies should be established. However, differences in state reading tests must be considered when researching this information.

5) Determining what reading strategies English teachers use consistently and which strategies they should use to influence reading ability would be an important focus for further research.

Elementary Reading Programs Compared to Secondary Reading Programs

The goals of an elementary teacher when providing reading instruction to students are somewhat different than those of a secondary teacher. Students in kindergarten, first, second, and third grade classrooms are expected to learn phonics, the alphabet, word recognition, spelling, phonemic awareness, and concepts of print. The fundamentals in each of these areas are tested and emphasized in elementary grades, and elementary teachers recognize that this is a huge part of their job as a primary grade teacher. Elementary teachers complete courses in college specifically targeting reading

instruction. Reading teachers and pull out programs are mostly predominant for students in elementary schools, and students are expected to know how to read at a very young age. Teachers are trained on strategies to encourage reading in their classrooms, and programs are funded to encourage school districts to reach higher reading achievement in their schools.

On the secondary level, however, teachers are more content area specific. Teachers focus on the content area in which they are certified to teach. And, as found in this study, many teachers do not feel it is their job to teach reading on the secondary level. More often than not, secondary teachers have not been trained in reading instruction.

Teachers, however, are not the only ones less motivated to focus on reading skills in the secondary classroom. Students are less motivated, as well. In fact, after third grade, students' interest in reading declines as other recreational activities and interests fill their time (Nippold, Duthie, & Larsen, 2005). One reason for this shift is the difficult text that students encounter, both in the English classroom and in content areas. Students in secondary grades are often not provided with additional reading instruction if they struggle with their reading skills. Funds and personnel for reading intervention are primarily used for elementary grades, leaving little support for students in the upper grades (Guth & Heaney, 1998).

As students make this shift from early grades to upper grades, so does instruction shift from teaching phonics to reading strategies. Students are expected to have mastered reading skills taught in elementary grades and are now expected to master reading comprehension, predictions, inferences, analysis and organization of thinking. Students

who are behind are often left behind. Without an emphasis on reading instruction on all grade levels, students will not become successful readers. Because fewer pullout programs, intervention programs, and reading teachers are available to students in middle and high school, learning to read in early grades is a necessity.

Recommendations for Secondary Reading Programs

This study indicates that although many schools rely on the Accelerated Reader program to increase reading skills, its implementation does not make a difference in the pass rates for the ninth grade Reading TAKS test.

Based on Table 12 in chapter 4, the passing rate of students in each of the ten schools used in this study on the ninth grade Reading TAKS varied only slightly. The percentage of students who met the passing standard for the Reading TAKS ranged from 91 to 100. However, there is no common thread among schools with a higher percentage of students who met the passing standard. The one commonality among all nine schools that responded to reading program interview questions was that they all expected English classroom instruction to drive reading achievement. The strategies used within these classrooms, however, varied. One of the ten schools in the study had a 100% pass rate for the ninth grade Reading TAKS. Nine of the ten schools, however, can still raise their pass rates. Additional reading time, implementation of pull out programs, and emphasis on content area reading instruction may help schools reach that goal.

Summary

Children are taught to read so that they can understand what is in the text. Thus, most of what matters in reading instruction matters because ultimately it affects whether

the student develops into a reader who can comprehend what is in text (Pressley, 2000). Not only is comprehension imperative in an English classroom, but it is a necessity that transcends the walls of a classroom into everyday life. While a debate continues over what programs and strategies are most effective in teaching reading skills, the importance of reading is not debatable.

The development of comprehension skills is a long term developmental process, which depends on rich world, language, and text experiences from early in life; learning how to decode; becoming fluent in decoding, in part, through the development of an extensive repertoire of sight words; learning the meanings of vocabulary words commonly encountered in texts; and learning how to abstract meaning from text using the comprehension processes used by skilled readers (Pressley, 2000). While research indicates that each of these aspects is key in reading instruction, there is no uniform way in which they are taught.

Accelerated Reader aims to establish a purpose for reading and to increase reading comprehension. However, the program does not significantly improve Reading TAKS scores. Training teachers in reading instruction, evaluating currently implemented reading programs, and using effective pedagogical tools are more likely to increase reading achievement.

APPENDICES

APPENDIX A

Sample Reading TAKS Questions

The Kindness of Strangers

by Susan Schindehette and J. Todd Foster

Two couples had never met—until each husband donated one of his kidneys to save the other man's wife

1   At first the encounter was as awkward as a double blind date. One man blushed a tomato-red color; a woman shifted in her chair and rubbed her hands together. But their discomfort was understandable. When David and Cristina Hunt faced Jennifer and Will Stoelting across a conference table at the Inova Transplant Center in Fairfax, Va., in June, the stakes were life and death.

2   Both women were suffering from kidney disease and knew that, unless they could find a transplant in the near future, they could die. But if the meeting went well, the four would gather again in a little more than a month, this time at Inova Fairfax Hospital. There doctors would remove one healthy kidney from each of the two husbands, then implant those kidneys into their ideally matched recipients. David Hunt's would go to Jennifer Stoelting and Will Stoelting's to Cristina Hunt. A perfect trade—and one of only a handful of so-called paired exchanges performed so far in which there is a double stranger-to-stranger donation.

3   Despite the initial jitters, that first meeting was a huge relief to Cristina, 31, and Jennifer, 27, both of whom had been on dialysis for years. "I just thought, 'Yea, I'm getting a kidney,'" recalls Jennifer, though, as David put it, "They could have been Hitler and Eva Braun[1] as long as they had a kidney to give us." Indeed, just five weeks later, on July 18, in four simultaneous surgeries that spanned nearly eight hours, a 23-person medical team removed David's kidney and implanted it in Jennifer just as Will's was being given to Cristina. Even in the best circumstances "a living, unrelated kidney doesn't match perfectly, but luckily for us, all four procedures went off without a hitch," says Dr. Johann Jonsson, 48, director of kidney-transplant services at Inova, who operated on David. "These husbands gave these wives at least 10 additional years to live."

4   Of the 13,372 kidneys transplanted last year, more than 8,000 came from cadavers. Unfortunately for the 52,498 Americans now on waiting lists, cadaver kidneys remain functional for only about nine years, while ones from living donors can last twice that. Of course, if no relative yields a match, finding a suitable—and willing—donor presents a formidable obstacle. Paired exchanges are a new and promising alternative because they offer

[1] Adolf Hitler's girlfriend

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4 cont.
donors an incentive. In the case of the Hunts and Stoeltings it was a straight exchange. But in some cases a parent may also bump his or her own child to the top of a waiting list by serving as an anonymous organ donor. "Until fairly recently it was kind of unheard of to donate to a stranger," says Toni Webb, spokeswoman for the Washington Regional Transplant Consortium, one of the few organizations around the country that coordinate local paired transplants. "I think we're going to see a lot more of these exchanges."

5
For Cristina Hunt, the development came none too soon. Born in New York City to a bookkeeper whose husband left the family when Cristina was a baby, she met David, now a 31-year-old career Marine captain, in 1990 while the two were on separate vacations in Tijuana. They married three months later. Within a year the couple's first son, Christopher, was born. But in 1995, while pregnant with Jordan, now 6, Cristina was diagnosed with a form of nephritis, a chronic inflammation of the kidneys. In late 1998 she was put on dialysis, and in the years since she has spent nine hours every night hooked up to a machine to cleanse her blood.

6
Over time Cristina, a homemaker, developed several severe infections, and this year she nearly died twice, once from septic shock and another time from massive blood loss. Her doctors said a transplant seemed her best option. In January the Hunts were told that husband David would be an acceptable match. But in March, the day before the transplant was due to take place, both were devastated to learn that recent transfusions had caused Cristina to

develop antibodies to David's blood, and he was no longer a possible donor.

7
Meanwhile in Manassas, Va., not far from the Hunts' Stafford, Va., home, Jennifer and Will Stoelting were experiencing much the same anguish. As a girl growing up in Pennsylvania, Jennifer, whose family has a history of kidney disease, developed high blood pressure and a succession of serious bladder infections, which later caused her kidneys to fail. While a senior at Manassas Park High School in 1993, she met Will, now 27, who works for an insurance company. The two, who have no children, wed in 1996. Throughout their marriage Will stood by Jen during her trips every other day to a dialysis clinic. Four years ago Jen, a medical receptionist, put her name on the national waiting list maintained by the Richmond, Va.-based United Network for Organ Sharing (UNOS). "But you never know if they're going to call you," says Will. "It could be 10 years."

8
The fateful notice came much sooner. Both Jennifer and Cristina were undergoing treatment at Inova, and nurses Masomeh Dhaliwal and Pat DiSanto, the hospital's transplant coordinators, realized that their respective blood types might mean a possible match. In May the Stoeltings received a phone message from DiSanto, who in measured tones announced that she might have found a match from a man whose wife also needed a transplant. "Jen freaked out," recalls Will. "But I knew it wasn't a sure thing." Happily, tissue typing, CT scanning and further tests revealed that both

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husbands were ideal donors, and the two couples met with doctors at a June briefing. "The doctors said, 'Okay, the date is July 18.' It was quick," recalls Will. Cristina remembers that news as "nerve-racking, like a prearranged marriage."

9   Just 12 hours after the surgeries, all four patients were recovering beautifully. Jennifer's mother, Dolores Adams, 50, visited David Hunt in his hospital room and thanked him for saving her daughter's life. "I gave him a kiss and said, 'You don't know what this means to me,'" she recalls. "He said, 'I'm glad to do it, ma'am, but I didn't know it would hurt this bad.'"

10   Despite their painful operations, both men were out of the hospital in three days and are now back at work. According to doctors, their remaining kidneys will simply grow larger to accommodate the added workload. As for their wives, the first three months after transplant are most critical, but both are back at home and expected to recover fully. Cristina, now free of her dialysis catheter, can look forward to swimming with her sons for the first time when she is fully healed. And Jennifer? She reports that she is simply "doing great."

11   In the weeks following their surgeries the couples have remained in touch and predict that the remarkable bond between them will last throughout their lives. In fact, Will's stepfather, Stuart Martin, 62, sees this as something more than a medical marvel. "These husbands gave their hearts to their wives when they were married," says Martin. "And they gave their kidneys to continue that love."

9 Read the following dictionary entry.

hitch \'hich\ n 1. a sudden movement or pull
2. a device that connects two things 3. an
unforeseen difficulty or obstacle 4. any of
various knots used to secure a line
temporarily

Which definition best matches the meaning of
the word *hitch* as it is used in paragraph 3 of
the article?

A Definition 1

B Definition 2

C* Definition 3

D Definition 4

Objective 1

10 According to the article, what happens after
someone donates a kidney for transplant?

A The donor's other organs take over the
functions of the removed kidney.

B The donor experiences chronic pain that
must be controlled by medication.

C The donor must undergo occasional
dialysis.

D* The donor's remaining kidney grows
larger to do the added work.

Objective 1

11 Which of the following quotations from the
article best expresses a theme of the selection?

A *Despite their painful operations, both men
were out of the hospital in three days and
are now back at work.*

B *Throughout their marriage Will stood by
Jen during her trips every other day to a
dialysis clinic.*

C *Both women were suffering from kidney
disease and knew that, unless they could
find a transplant in the near future, they
could die.*

D* *"These husbands gave their hearts to their
wives when they were married," says
Martin. "And they gave their kidneys to
continue that love."*

Objective 2

*In items such as this, students need not search the text
to locate the specific lines quoted in the answer
choices. Instead, students need to recognize which
piece of textual evidence answers the question.*

12 In paragraph 1, the authors use a simile to —

A describe how blind dates can be
embarrassing

B* emphasize the nervousness the four
people felt

C show how important organ donations are

D explain why the two couples were meeting

Objective 2

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13 In paragraph 4, the authors present statistics and other background information in order to —

A persuade the reader to become a kidney donor

B* emphasize that the couples' experience was unusual

C stress that transplants from cadavers are the most effective

D point out why some people need kidney transplants

This item requires students to understand why an author includes certain pieces of information.

14 The article suggests that family members of those needing transplants —

A* can help by offering to become donors themselves

B often end up needing kidney transplants themselves

C can never be matching donors for transplants

D have difficulties when they stay on dialysis too long

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Crossover Items

15 In both selections, the theme is best expressed through the —

A* actions of people

B characters' thoughts

C dialogue

D setting

Objective 2

16 In both selections, the women —

A lack family support

B* have problems they can't solve alone

C depend on their husbands for help

D need strangers to help them out

Objective 3

17 The purpose of the photograph on the book jacket is most likely to —

A show a way that people can be kind to others

B convince readers to help little children

C* appeal to the readers' emotions

D compare the sizes of adult and infant hands

Objective 3

In viewing and representing items, students are asked to deconstruct media to determine the message being conveyed.

18 Which of these elements of the book jacket supports the author's credibility?

A *Random Acts: Stories of Everyday Kindness*

B "... this delightful collection of heartwarming tales."

C Rose Magellen, Weekly Book Review

D* *Cicada Medal for Young Adult Nonfiction*

Objective 3

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OPEN-ENDED ITEMS

19   In "The Night Before Thanksgiving," what is one conflict faced by Mrs. Robb? Support your answer with evidence from the selection.

Objective 2

20   Do you think the husbands in "The Kindness of Strangers" are brave? Explain your answer and support it with evidence from the selection.

Objective 3

Open-ended items such as this have no one correct answer. Students must, however, explain the answer they choose and support it with relevant, strongly connected textual evidence.

21   How is the idea that good deeds are rewarded important in both "The Night Before Thanksgiving" and "The Kindness of Strangers"? Support your answer with evidence from **both** selections.

Objective 3

This item is an example of an open-ended crossover item. In responding to open-ended items that range across two selections, students must offer an idea or analysis based on both selections and provide relevant, strongly connected textual evidence from both selections.

APPENDIX B

Sample Email Response Regarding AR Use

RE: research project

🕐 You replied on 6/21/2007 8:30 AM.

To: Williamson, Amy
Cc:

no, we don't use it at the secondary level. Best wishes with your studies.

From: Williamson, Amy [mailto:Amy_Williamson@baylor.edu]
Sent: Wed 6/20/2007 10:50 AM
To:
Subject: research project

I am gathering some information for a possible research project at Baylor, where I am a doctoral student. Could you please tell me, is the Accelerated Reader program implemented for your ninth grade students? If so, how is it implemented? Any information you could provide me with would be helpful.

Thanks!

Amy Williamson

APPENDIX C

Sample Email Response of Reading Program Interview Questions

Amy,

I'm sorry it's taken a while for me to get these back to you. I am the librarian at the middle school/high school campus and also a Reading Specialist and consultant on junior high reading curriculum. I have answered the questions on AR and the questions concerning the Reading program have been answered by the 9th grade English teacher, · There are a couple of questions that I've added my additional comments in parentheses. My answers are in red and Mrs. Monthie's are in blue. I hope this is helpful to you in writing your dissertation.

, Librarian
****

Interview Questions- Reading Program

1. What are the components of your reading program for ninth grade students? The year is designed with a variety of novel studies, short story studies, and dramatic studies.

2. What is done within the English classroom to improve reading skills and comprehension for ninth grade students? I use a variety of assessments and activities designed to improve reading and comprehension.

3. Is there any summer reading required for students before they enter the ninth grade? Summer reading is only for students going into the PreAP English I class.

4. Are there incentives for students to read more than the required assignments for class? No (The library provides prizes for students to purchase with their accumulated AR points. The more points they have, the better the prize).

5. Are students tracked for their reading/English classes according to their ability levels? If so, explain. (low level readers, average level readers, higher level readers) No

6. Are there any programs in place to assist struggling readers? For advanced or above grade readers? If so, what are they? No (Students are STAR tested each six weeks and assigned a ZPD range. This range is used in guiding students to books that will help them grow as a reader. However, this is not closely monitored at the high school level.)

7. Do other content area teachers focus on any reading strategies to assist ninth graders in their reading skills? No

8. Does your campus have a designated reading teacher? Master Reading Teacher? Reading Specialist? No (The librarian is a Reading Specialist and has input into the junior high reading curriculum. Also, she provides teaching materials & resources to assist the English teachers in their novel & literature lessons.)

9. Do you have any other information that you think I should know about your campus reading program?

Interview Questions- Accelerated Reader

1. Is the Accelerated Reader program implemented for ninth grade students in your school? Yes. Somewhat. I utilize AR quizzes as assessments for novel studies. (According to our curriculum

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guidelines, all 9th graders are supposed to have a goal each six weeks and read independently to reach that goal. In reality, this is not always implemented.)

2. Is participation required? Yes

3. What percentage of ninth graders participate in the program? I would estimate 85%. 2/3

4. What incentives are given for participation? Grades for AR quizzes are used in English or reading class/AR prizes

5. How is the program used/implemented? Students may test over books read in class or on their own to accumulate points. Also, their test average and the percentage of their goal attained are used as class grades.

6. How long has the school participated in the program? For ten years or more.

7. Does your school plan to continue use of the program for ninth graders? Yes.

APPENDIX D

Sample STAR Diagnostic Report

STAR Reading™
Diagnostic Report
Friday, 31 March 2006 9:15 AM
Test Date: 29 March 2006 8:31:02 AM

Star Reading will provide teachers with estimated reading ages and National Curriculum levels* in reading.

Dawes Secondary School
Briggs, Dylan
Year: 8

Teacher: Johnson, G.
Class: English 8

ID: BRIGD

The diagnostic information presented below is a generalised skills assessment based on the student's performance on a STAR Reading test.

SS	ZPD	Est. Reading Age*	Est. NCL – English**
856	4.4-7.7		

These scores indicate that Dylan probably reads many different types of literature for pleasure. Dylan can select books to meet his needs. He is able to read critically and uses reading skills to solve problems in different subjects.

At this level, Dylan needs to read widely in order to prepare for the reading challenges of high school. Dylan also must continue to develop strategies for understanding nonfiction books in different content areas.

For optimal reading growth, Dylan needs to:
- Learn and employ study skill strategies to access and organize reading materials
- Acquire a working vocabulary of literary terms
- Practise evaluating and making judgements about texts
- Access information from various sections and computerized indexes of the media center

Diagnostic Report

Developed by professional reading specialists, this report helps you guide each student by suggesting prescriptive actions to encourage and promote optimal reading growth.

This pupil's Zone of Proximal Development (ZPD) for independent reading is book level 4.4-7.7. If Accelerated Reader™ reading management software is being used in your classroom or school, Dylan should be encouraged to select books with book levels in the ZPD. These books will provide optimal reading challenge without frustration. The ZPD, however, is approximate. Success at any book level also depends on the pupil's interest and prior knowledge of a book's content.

The following techniques will also help ensure the pupil's continued growth in reading:

- Guide reading practice so that Dylan averages at least 85 per cent on Accelerated Reader Reading Practice Quizzes.
- Once Dylan is able to maintain an 85 per cent average, encourage him to raise his average to 90% or higher. High averages are associated with the greatest reading gain.
- Use the Accelerated Reader Diagnostic Report and Pupil Record Report for more detailed information about the pupil's reading practice.
- Teach Dylan how to select books throughout his ZPD.
- Help Dylan establish a minimum book level, minimum percentage correct, and point goals for each marking period.

Use the ZPD (Zone of Proximal Development) to help the student select books of an appropriate level in order to maximise growth.

^ NCL – National Curriculum Level
* Correlation study in progress

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APPENDIX E

Sample STAR Quiz Items

Long distance runners try to run at a pace which will tire the other runners. To do this, they need plenty of stamina, built up by years of training. They must also know the exact moment to use their speed to break away from and thus upset or confuse the other runners. An _____ with less natural speed than rivals may speed up the pace at any time. Most often, they will do this in the middle of the race.

1. authority

2. inventor

3. errand

4. athlete

Milk and cream come from cows raised on _____ farms.

1. cocoa

2. frozen

3. grocery

4. dairy

APPENDIX F

Timeline for Texas Testing

Timeline of Testing in TEXAS

1979 TABS (Texas Assessment of Basic Skills) Test:
The legislature passed a bill requiring basic skills competencies in math, reading, and writing for grades 3, 5 and 9. Because there was no state-mandated curriculum at that time, the learning objectives for the TABS were created by committees of Texas educators. In 1983, the Texas Legislature began requiring retesting. Although TABS was not a "diploma-denial test," 9th grade students who did not pass the test were required to retake the exam each year thereafter while in school. Because results were reported, the TABS test was the beginning of "high stakes" accountability for school districts.

1984 TEAMS (Texas Educational Assessment of Minimum Skills) Test:
The legislature changed the wording of the Texas Education Code, requiring the assessment program to measure "minimum skills" rather than " basic skills competencies." The TEAMS test began in the 1985-86 school year, replacing the TABS. It sought to increase the rigor of the state assessment and added individual student sanctions for performance at the exit level. TEAMS tested math, reading, and writing, and was administered to students in grades 1, 3, 5, 7, 9 and 11, with the 11th grade testing being the "exit level" assessment. The class of '87 became the first class in which students were required to pass the exit level exam in order to receive a diploma.

1990 TAAS (Texas Assessment of Academic Skills) Test:
Changes in state law required the implementation of a new criterion-referenced program. The TAAS test shifted the focus from minimum skills to academic skills, which represented a more comprehensive assessment of the state-mandated curriculum, the Essential Elements. TAAS assessed higher-order thinking skills and problem-solving in math, reading and writing for grades 3, 5, 7, 9, and 11 exit level. The board considered the following factors when establishing the levels of satisfactory performance. First, the TAAS assessed a broader range of the Essential Elements than TEAMS did. Second, in comparison to TEAMS, the TAAS test items were more difficult. Third, the TAAS served multiple purposes by providing scores and consequences at the student level, the school level, and the district level. Due to these factors, the board set a one-year interim standard for satisfactory performance.

1992-1993 TAAS transitioned from a fall to a spring testing program, and in 1993- 1994 assessment was expanded to include grades 3-8 in reading and math. The writing test was moved to grades 4 and 8, and the exit level test was moved from grade 11 to grade 10.

1993 The legislature enacts the creation of a new statewide-integrated accountability system that includes the rating of campuses and districts. The inclusion of TAAS in the accountability system, the public release of performance results, and the exit-level requirement for graduation makes TAAS the most "high stakes" assessment in Texas history.

1994 The board voted to align the passing standards at grades 3-8, with the standard being established at the exit level. This new standard, the Texas Learning Index (TLI), allowed comparisons of achievement across grades while maintaining the same passing standards for exit level students. The TLI helped districts to determine whether each student was making the yearly progress necessary to meet minimum expectations on the exit level reading and math test in 10th grade.
1995 Science and social studies were added to the eighth grade TAAS test.

1999 TAKS (Texas Assessment of Knowledge and Skills) Test:
Development of the Texas Assessment of Knowledge and Skills (TAKS) test begins.
The legislature passed bills ending social promotion and creating a more rigorous testing program (Texas Education Code, Chapter 39 and 28 respectively). As mandated by the 76th Texas Legislature, the Texas Education Agency begins to develop a new assessment program, the Texas Assessment of Knowledge and Skills (TAKS), to be aligned with the state-mandated curriculum, the Texas Essential Knowledge and Skills.

Under the new law, students in grades 3 (reading), 5 and 8 (reading and math) will be required to demonstrate proficiency on a state assessment test, and achieve passing grades in order to advance to the next grade level. At the 11th grade (reading, writing, math, science and social studies) students must pass the TAKS test, in addition to receiving the required number of credits, in order to receive their high school diploma. The Texas Education Code (TEC) charges the State Board of Education with establishing the passing standards (performance standards) on the new TAKS test.

2002 Spring of 2002 is the last administration of the TAAS test. Exit level students who fail any subject area test will continue to retest.

TAKS is field-tested across the state of Texas and will become the new statewide assessment program to be administered beginning in the 2003 school year.

February-May 2002 Statewide field testing for grades 3-11 is conducted in order to collect student performance data on test items.

November 2002 The State Board of Education is expected to set passing standards for the new TAKS test.

Spring 2003 is the first live administration of the TAKS test which will generate scores that count for students.

APPENDIX G

Sample TAKS Score Sheet

Explanation of Results

A These are the objectives tested in each subject area.

B The first column shows the number of questions your child answered correctly for each objective. The second column shows the total number of questions tested for each objective.

C The shaded squares show the number of questions your child answered correctly for each objective. The unshaded squares show the number of questions your child did not answer correctly. Together these squares equal the total number of test questions for each objective.

D The first number in the lightly shaded box shows the total number of questions your child answered correctly for all objectives tested in that subject. The second number shows the total number of questions on the test for that subject.

E This box is where you will find your child's score on each subject area test. The second column in this box shows when your child took the test. The third column shows your child's scale score. A scale score is a statistic used to show your child's performance on a test. The TAKS scale score lets you compare your child's score with the performance standards Met Standard and Commended Performance. The scale score indicates how far above or below these standards your child's achievement is. TAKS scale scores cannot be compared across subject areas or grade levels. The fourth column shows whether your child met the state's passing standard. The last column shows whether your child achieved commended performance.

F This scale shows the range of performance possible on each test. The arrow shows where your child's score (the number written in the arrow) is on the scale. The score needed to meet the passing standard and the score needed to achieve commended performance are also marked.

G The number after the words "Lexile Measure" is based on your child's scale score and provides you with additional information about how well he or she reads. To learn more about Lexiles, go to www.Lexile.com or ask your child's school for a copy of *Information on Lexiles for Parents.*

H The number after the words "Quantile Measure" is based on your child's scale score and provides you with additional information about his or her mathematical ability. To learn more about Quantiles, go to www.Quantiles.com or ask your child's school for a copy of *Information on Quantiles for Parents.*

Texas Assessment of Knowledge and Skills
Confidential Student Report

Grade 9

Name: DAVID CAMPOS
Date of Birth: 04/28/92
Student ID (PEIMS): 190093057

SAMPLE

Report Date: MAY 2007
Date of Testing: SPRING 2007

District: 999-001 EXAMPLE ISD
Campus: 001 EXAMPLE H S

Local Student ID: 9930533077
Class Group: BARBARA HART

ITEMS — Correct / Tested

1. Basic Understanding 9 9
2. Literary Elements and Techniques 11 12
   Short Answer Rating (Literary Selection) . . . . . *Partially Sufficient (1 out of a possible 3)* 1 3
3. Analysis and Evaluation 11 12
   Short Answer Rating (Expository Selection) . . . *Exemplary (3 out of a possible 3)* 3 3
   Short Answer Rating (Connecting Selections) . . *Sufficient (2 out of a possible 3)* 2 3

TOTAL: 37 42

Lexile Measure: 1440L

Reading

Grade	Test Date	Scale Score	Met Standard	Commended Performance
9	SPRING 2007	2419	YES	YES

Student's Scale Score — 2419

1401 1600 1800 2000 2200 2400 2600 2800 3000 3283
Standard: Scale Score of 2100
Commended Performance: Scale Score of 2400

ITEMS — Correct / Tested

1. Functional Relationships 3 5
2. Properties and Attributes of Functions 2 5
3. Linear Functions 3 5
4. Linear Equations and Inequalities 2 5
5. Quadratic and Other Nonlinear Functions 1 4
6. Geometric Relationships and Spatial Reasoning 2 4
7. Two- and Three-Dimensional Representations 2 4
8. Measurement and Similarity 3 6
9. Percents / Proportions / Probability / Statistics 3 5
10. Mathematical Processes and Tools 5 9

TOTAL: 26 52

Quantile Measure: 810Q

Mathematics

Grade	Test Date	Scale Score	Met Standard	Commended Performance
9	SPRING 2007	2012	NO	NO

Student's Scale Score — 2012

1041 1200 1400 1600 1800 2000 2200 2400 2600 2800 2972
Standard: Scale Score of 2100
Commended Performance: Scale Score of 2400

Document # 7201-04112

For more information about the **TAKS** tests, contact your child's school.

Print # 1-00001-001

Additional Information

Important for Parents to Know

On the TAKS tests there are three categories for student performance: Commended Performance, Met Standard, and Did Not Meet Standard. These categories are explained below.

Commended Performance
If your child's report shows a "Yes" under Commended Performance, he or she performed at a level that was considerably above the state passing standard. Your child showed a thorough understanding of the knowledge and skills tested at the ninth grade.

Met Standard
If your child's report shows a "Yes" under Met Standard, he or she performed at a level that was at or somewhat above the state passing standard. Your child showed a sufficient understanding of the knowledge and skills tested at the ninth grade.

Did Not Meet Standard
If your child's report shows a "No" under Met Standard, he or she performed at a level that was below the state passing standard. Your child did not show a sufficient understanding of the knowledge and skills tested at the ninth grade.

STUDY GUIDES

If your child did not meet the standard on one or both of the grade 9 TAKS tests, the state provides a study guide for your child free of charge. This study guide will be given to your child through his or her school. The study guide is designed to help students strengthen their skills by offering instruction as well as sample questions and explanations. Each study guide also contains a set of practice questions and a key to the correct answers.

If your child did not meet the standard in one or both of the subject areas tested and did not receive a study guide, please contact your child's school.

Test objectives on back . . .

The Test Objectives — *What They Mean…*

READING

The TAKS reading test assesses how well students understand what they read. Students are required to answer multiple-choice and short answer questions based on two published reading selections and a visual representation. Students are permitted to use both a dictionary and a thesaurus throughout the test. The knowledge and skills tested are grouped into three objectives.

Objective 1
Basic Understanding

Students must be able to show that they have a basic understanding of the reading selections included on the test. Figuring out the meaning of unknown words, finding important details and main ideas, and recognizing accurate summaries are all part of developing a basic understanding.

Objective 2
Literary Elements and Techniques

Students must be able to show that they understand the literary elements that are found in all stories. These elements include plot, conflict, character development, setting, and theme. Students must also understand how an author combines these elements to create an effective story. In addition, students must be able to recognize the literary devices or tools an author uses to guide the reader's understanding of a story's characters, events, theme, and overall meaning. At the ninth grade level, students should know literary devices, such as flashback, foreshadowing, and symbolism.

Objective 3
Analysis and Critical Evaluation

Students must be able to show that they can develop a deep understanding of the reading selections and visual representation included on the test. They must be able to draw reasonable conclusions, use the text to support their conclusions, make meaningful connections between important ideas and themes, and understand the techniques an author has used to develop a text.

MATHEMATICS

The TAKS mathematics test assesses how well students understand mathematics, including algebra and geometry, and how well they can apply this understanding to the real world. The knowledge and skills tested are grouped into ten objectives.

Objective 1
Foundations for Functional Relationships

Students must be able to show their understanding of functions represented by pairs of numbers, where the value of one number depends on the value of the other number. Students must also be able to draw conclusions from functional relationships.

Objective 2
Properties and Attributes of Functions

Students must be able to show their understanding of the similarities and differences between linear and quadratic functions. Students must also be able to solve algebraic equations.

Objective 3
Linear Functions

Students must be able to show their understanding that a linear function is an equation that can be represented by a line on a graph. Students must also know how the slope (rate of change) affects that line.

Objective 4
Linear Equations and Inequalities

Students must be able to show their understanding of the way to organize problems into equations and inequalities in order to find solutions to problems. Students must also know when using two related equations is the best way to find a solution.

Objective 5
Quadratic and Other Nonlinear Functions

Students must be able to show their understanding of a quadratic function as it looks on a graph. They must also understand how the shape of the parabola on the graph changes as the equation changes. Students must know how to simplify algebraic expressions by correctly using exponents.

Objective 6
Geometric Relationships and Spatial Reasoning

Students must be able to show their understanding of how to locate ordered pairs of rational numbers on a coordinate plane. Students must also be able to use transformations, such as reflections, translations, and dilations, to identify similar geometric shapes.

Objective 7
Two- and Three-Dimensional Representations of Geometric Relationships and Shapes

Students must be able to show their understanding of how geometric concepts and properties can be used to solve everyday problems. Students must also understand how solid, three-dimensional figures look from different perspectives.

Objective 8
Concepts and Uses of Measurement and Similarity

Students must be able to show their understanding of how to find the surface area and volume of solid figures. They must also be able to find missing measurements in similar shapes by using proportions. Students must be able to determine the effect on perimeter, area, and volume when any measurement is changed. (For example, if the sides of a square are doubled, the area is four times the original area.)

Objective 9
Percents, Proportional Relationships, Probability, and Statistics

Students must be able to show their understanding of percents, probability, measures of central tendency, graphs, and misuses of graphical information.

Objective 10
Mathematical Processes and Tools

Students must be able to show their understanding of problem-solving strategies and tools, such as calculators, formulas, rulers, pictures, graphs, and tables.

Understanding the *Confidential Student Report*
A Guide for Parents

Grade 9

What is TAKS?

TAKS is the name of the testing program for students in Texas public schools. The letters stand for

T	Texas
A	Assessment of
K	Knowledge and
S	Skills

Each public school in Texas must teach the same curriculum, the Texas Essential Knowledge and Skills (also called the TEKS). The **TAKS** tests are based on this curriculum—in other words, on what students are being taught in school. Therefore, the **TAKS** tests are a good way to measure what students are learning.

Who takes TAKS?

Public school students in grades 3 through 11 take TAKS tests every spring. The chart below shows which subject-area tests are given each year.

ENGLISH TAKS

Subjects/Grades	3	4	5	6	7	8	9	10	11
Reading	◆	◆	◆	◆	◆	◆	◆		
Mathematics	◆	◆	◆	◆	◆	◆	◆	◆	◆
Writing		◆			◆				
Science			◆			◆		◆	◆
Social Studies						◆		◆	◆
English Language Arts								◆	◆

SPANISH TAKS

Subjects/Grades	3	4	5	6	7	8	9	10	11
Reading	◆	◆	◆	◆					
Mathematics	◆	◆	◆	◆					
Writing		◆							
Science			◆						

Why am I receiving this brochure?

This brochure has three purposes.

The first purpose is to give you some basic information about the **TAKS** program.

The second purpose is to explain a sample test report so that you can understand your child's actual test report. The actual test report, which has your child's name on it and shows his or her test results, has been sent to your child's school and should accompany this brochure.

The third purpose is to provide you with a short summary of each objective on the subject-area tests so that you will know what knowledge and skills that objective tested.

How did my child do on TAKS?

Every child who takes a **TAKS** test gets a report of his or her score. This report is called the Confidential Student Report, or CSR. By carefully examining your child's CSR, you will find out where your child is doing well and where your child may need to improve. For example, if your child has done well on a **TAKS** test, it is a good indicator that your child is learning what he or she needs to learn in that subject. Remember, the **TAKS** test cannot test everything that your child is learning. However, your child's score will give you a good idea about the progress he or she is making. If your child did not receive a score on a **TAKS** test and you do not understand why, please contact his or her school.

Your child received an overall score on each test, but you can get more information about your child's strengths and weaknesses by looking at his or her performance on each test objective. An objective is simply a grouping of knowledge and skills, or goals for learning.

On the following pages of this brochure, you will find a short explanation of every objective on the grade 9 **TAKS** tests. These explanations should help you better understand the meaning of your child's test results.

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