

University of Mississippi

eGrove

Electronic Theses and Dissertations

Graduate School

1-1-2011

Impact of a state sponsored intervention program on reading comprehension scores

Rolonda Brown
University of Mississippi

Follow this and additional works at: <https://egrove.olemiss.edu/etd>



Part of the [Education Commons](#)

Recommended Citation

Brown, Rolonda, "Impact of a state sponsored intervention program on reading comprehension scores" (2011). *Electronic Theses and Dissertations*. 1377.
<https://egrove.olemiss.edu/etd/1377>

This Dissertation is brought to you for free and open access by the Graduate School at eGrove. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of eGrove. For more information, please contact egrove@olemiss.edu.

THE IMPACT OF A STATE SPONSORED INTERVENTION
PROGRAM ON READING COMPREHENSION SCORES

A Dissertation Presented for the
Doctor of Philosophy Degree
University of Mississippi

Rolonda Brown

August 2011

Copyright © 2011 by Rolonda Brown

ALL RIGHTS RESERVED

ABSTRACT

The purpose of this quantitative study was to examine the impact of the state sponsored Ramp-Up Literacy intervention program on reading comprehension test scores as measured by Mississippi's Subject Area Test Program (SATP) and the Mississippi Curriculum Test, Second Edition (MCT 2). There were 252 participants representing three school districts over three testing years. Each school district selected program participants based on reading test scores, teacher recommendations, and grades. A paired samples-t test was the statistical analysis used to determine significance through pretest and posttest outcomes for each program year. The effect size d was also used to determine whether the change in test scores was small, moderate, or significant. All schools did experience a change in effect size each year of intervention. However, they did not all experience significance based on t-test results each year.

DEDICATION

This dissertation is dedicated to my daughter Tamia A. Word who supported and encouraged me throughout the process.

ABBREVIATIONS AND SYMBOLS

MCT II.....	Mississippi Curriculum Test
MSAT.....	Mississippi Subject Area Test

ACKNOWLEDGMENTS

I shall never cease to thank my God for the strength and fortitude required to endure a process such as this one.

I offer my sincere appreciation and thanks to my family for their faith in me. My daughter Mia patiently shared her mom with the process to complete this body of work, and I thank her. I thank my mother Mrs. Evora Trotter, who has believed that I could do anything since birth, for her tireless support. I offer thanks to my brother Cortavious Shields for making me feel like his hero, and to my sisters Natasha and Yolonda, for offering tough love when I needed it most.

My deepest gratitude is extended to my committee members. To my chair, Dr. Rosemary Oliphant-Ingham, I offer thanks for her patience, and her amazing ability to find ways to clean up even the worst drafts. I sincerely thank Dr. Larry Hanshaw for his late hours of editing, his help with statistical analysis, and his wonderful advice and encouragement. I also offer thanks to two other helpful members of my committee, Dr. Thea Hayes-Black and Dr. Kathryn Mckee.

I want to thank my friends and colleagues who prayed for and encouraged me when I thought I could not continue: Pastor Eyvonne Smith, Dr. Stacy Jones, Mrs. Tamika Bartee, Dr. Toni Bellon, Ms. Johnnie Wilson, Ms. Tracy Wilson, and the greatest motivator of all, Mrs. Barbara Jean Whitaker-Wheatley.

TABLE OF CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iii
ABBREVIATIONS.....	iv
ACKNOWLEDGMENTS.....	v
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
INTRODUCTION.....	1
LITERATURE REVIEW.....	7
METHODOLOGY.....	27
ANALYSIS OF DATA.....	32
SUMMARY.....	75
REFERENCES.....	80
VITA.....	82

LIST OF TABLES

SCHOOL A YEAR ONE.....	34
SCHOOL A YEAR TWO.....	36
SCHOOL A YEAR THREE.....	38
SCHOOL B YEAR ONE.....	41
SCHOOL B YEAR TWO.....	43
SCHOOL B YEAR THREE.....	45
SCHOOL C YEAR ONE.....	47
SCHOOL C YEAR TWO.....	49
SCHOOL C YEAR THREE.....	51
EFFECT SIZE D COMPARISONS.....	71

LIST OF FIGURES

SCHOOL A T-TEST ONE.....	54
SCHOOL A T-TEST TWO.....	55
SCHOOL A T-TEST THREE.....	58
SCHOOL B T-TEST ONE.....	59
SCHOOL B T-TEST TWO.....	62
SCHOOL B T-TEST THREE.....	64
SCHOOL C T-TEST ONE.....	65
SCHOOL C T-TEST TWO.....	68
SCHOOL C T-TEST THREE.....	71

Introduction

Background of the Study

Civil rights advocates, education lobbyists, governors' groups, and many more are urging high schools to remedy literacy achievement gaps (Johnston, 2006). In a recent report to the nation's governors, only three out of ten U.S. eighth graders were proficient readers and almost 40 percent of high school students lacked adequate reading and writing skills (Johnston). McConachie (2006) called this dilemma both challenging and difficult because the correct methods for solving this issue are not the ones that are being put into place. According to McConachie most high school teachers are being pressured to teach more subject area content. McConachie also posited that greater content requirements due to standardize testing provide little space to teach literacy strategies, which is what many of today's secondary students require. Researchers and teachers claim that there are very good approaches to adolescent literacy available, but many school districts are experiencing teacher shortages and financial problems that deter implementing alternatives (McConachie). School districts must work as never before to solve these measures because they only serve to further delay a literacy solution for adolescents (McConachie).

Jacobs (2002) placed a major part of the delay in a literacy solution on teachers. He contended that if high school content teachers could pay better attention to the fact that students must learn to read even in high school, then they would be better equipped to help out. The focus of content teachers, says Jacobs, is teaching English, biology, history, or whatever their

area happens to be. Jacobs further contends that when many high school teachers are asked to include reading and writing strategies in their lessons, they are resistant and respond with things like: 'I don't have time'; 'That's not my job'; and, 'Why doesn't the reading teacher do it'. These kinds of attitudes from teachers are garnered through no fault of the struggling reader, but the prevailing national attitude toward learning to read has been that it has been accomplished in the primary grades. The reality is in stark contrast to this belief. There are more than five million high school students who cannot read well enough to understand their textbooks (Grigg, Daane, Jin, & Campbell, 2003). Jacobs does come to the rescue of teachers by stating that with new demands from administrators to achieve in state testing, some teachers see no other recourse than to stick to as much content area instruction as possible.

Teachers are not the only ones experiencing pressures in the educational arena. State and local educational administrators also are pressured to make sure that their states and districts are keeping pace with regards to reading. With the enactment of the 2002 No Child Left Behind Act, many school districts are suffering greater than ever (Scherer, 2004). The act mandates that high schools have testing measures in place for biology, English, and U.S. history, and Algebra I (NCLB-Public Law 107-110). The act further states that students must test at a level of proficiency before graduation can occur. Administrators and teachers understand that compliance with the new laws is mandatory and continued federal aid is contingent on success. This new legislation also mandates that all teachers must be highly qualified, which indicates that all teachers must have passed a rigorous testing in their content area or have a college degree in that area of study. For poor school districts who have relied primarily on emergency licensing and temporary teaching by recent college graduates, this act poses a serious dilemma. Should states fail to uphold laws put forth by No Child Left Behind then all federal funding for the schools in question could be terminated (NCLB Public Law 107-110).

Many states are implementing rigorous programs to keep up with the latest legislative demands in education. Two years ago the state of Mississippi implemented a pilot program to tackle the literacy gap in primary, middle, and high schools. As part of this new project approximately five Mississippi school districts have been awarded funding to redesign certain aspects of school routines and curriculum to test efforts at literacy improvement. With redesign, Mississippi has hired an independent literacy agency, America's Choice, to provide the literacy instruction which students so desperately need. This agency is allowed to use its developed curriculum with no interference from the state. The state and district curriculums play no part in lesson plan development, faculty development, or materials used in the course. This agency trains and evaluates teachers hired by the school districts to teach the redesign course. The agency also mandates that schools allow students two class periods or an uninterrupted 90-minute block of literacy class time to ensure the highest level of student achievement.

Students whose eighth-grade Mississippi Curriculum test scores show their reading level to be at least two grades below standard are eligible for the program. Upon entering the ninth-grade, students identified by the school district as eligible are automatically placed in the intervention program. These students do not attend the standard English I class for ninth-graders. The intervention class serves as their English I class as well as a writing election. Students receive double credits for this one class because the 90-minute block takes up two class periods. These same rules apply for the tenth grade intervention students as well.

Statement of the Problem

The purpose of this study will be to determine the effect of America's Choice Ramp Up Literacy Intervention Program on reading comprehension test scores.

Research Questions

In this study, the following research questions will be explored:

1. What are the reading comprehension scores of participants after one year of literacy intervention; after two years of intervention; and, after three years of literacy intervention?
2. What statistical differences exist between pre- and post- tests achievement scores in reading after each intervention year of America's Choice Ramp Up Literacy Program?
3. What is the impact of growth in overall scores after each year of intervention?

Research Hypotheses

Hypothesis One: There is no significant difference in mean pretest and posttest reading comprehension scores for School A.

Hypothesis Two: There is no significant difference in mean pretest and posttest reading comprehension scores for School B.

Hypothesis Three: There is no significant difference in mean pretest and posttest reading comprehension scores for School C.

Significance of the Study

More than five million dollars has been invested into the Mississippi Redesign Literacy Intervention Program (RLIP) through the means of a federal grant. This study will evaluate the effectiveness of the program's literacy component. Of the five RLIP districts, there is only one that has a level five standing, the highest academic rating a school district can receive according Mississippi testing standards. Therefore, a study of this nature should have a significant impact on how well middle to low achieving school districts can be affected by state funding.

Limitations

A major limitation for this study involves student placement in the Redesign Intervention Program (RIP). The students are selected into the program based on the outcome of their eighth grade reading comprehension test scores. Once it is determined that the student reads two or three grade level below standard then the student is forcibly put into RIP. Parents are not contacted for consent, nor are the students aware that they will be placed in a remediation program. The RIP classrooms separate the students from classmates due to the fact that those enrolled in RIP are no able to attend a regular ninth grade English class. The reading intervention becomes ninth grade English for these students. Students are sometimes visibly upset by this change and have spoken against having no choice whether or not they get to attend a traditional ninth grade English class.

Definitions

1. Academic Standard: "what a student should know and be able to do at a specified grade level" (PDE, 1999, p. 2).
2. Academic Performance: defined as grade point averages on a 4.0 scale in English, mathematics, science, and social studies.

3. Mississippi Curriculum Test: MCT II – The Mississippi Curriculum Test that is administered to students in grades three through eight in every Mississippi school district.
4. Mississippi English Subject Area Test: MESAT – The Mississippi English Subject Area Test that is administered to students in grade ten in every Mississippi school district.
5. Reading Comprehension: defined as the ability to give “collective meaning to words by accessing prior knowledge and utilizing word recognition skills”(Collins & Collins, 2002, p. 18).

Chapter II

Literature Review

Preface

Students can very easily miss opportunities in the lower grades to perfect foundational reading skills. When this occurs, schools should have measures in place to detect and remediate these students during adolescence. Adolescents who are struggling readers face enormous difficulties especially upon entering high school. Most high school curriculums are designed with college preparation as a focal point, and students are expected to read above or at grade level in order to thrive. There are oftentimes little or no modifications for the struggling high school reader (Catone & Brady, 2005). These students are also the ones who engender behavior problems, which can be direct results of a less than adequate reading ability. If a sympathetic educator does not reach out, many of these students simply drop out of high school.

Traditionally, most literacy research has been conducted on how to assist elementary students with reading acquisition skills; therefore, valuable information on how to assist older students is limited (Parris and Block, 2007). This has been a great disservice to the struggling adolescent reader who will be forced into a society that now demands college degrees for most professional work and at least a high-diploma for skilled labor jobs.

Catone and Brady (2005) report that if a student reaches the eighth grade without mastery of decoding skills, teachers tend to have a pessimistic outlook about doing what it takes to help these students achieve reading proficiency. Many teachers are bombarded with pressure from

administrators and parents to increase state testing scores, so being saddled with a student who is reading two or three grade levels below standard becomes a burden rather than a rewarding professional challenge. Without professionals in place who could diagnose the reading problem, most high school teachers are at a loss on where to begin with the struggling readers. A lack of mastery in word decoding skills has been found to exist in high school students and adult literacy participants (Catone and Brady, 2005), but with content area classes only, high school teachers may not know how to effectively utilize information such as this. Studies conducted by Alexander (1991) indicate that without further research on how to assist low-level adolescent readers “as many as one of every five students are likely to leave high school with limited literacy”(p. 330). Parris and Block (2007) maintain that there are studies that indicate how high school teachers have helped students to understand language usage and comprehension strategies, but there are few studies, the researchers note, that actually reveal how secondary teachers increase their students’ abilities to read.

The National Assessment of Educational Progress (2002) indicates that of the nation’s eighth graders only 33 percent were reading at a level of proficiency, and 36 percent of high school seniors were reading at or above a level of proficiency (U.S. Department of Education, 2003). According to the National assessment of Educational Progress, 26% of high school students cannot read daily living materials such as road signs, newspapers, and bus schedules. Also in 1993 a poll released by the National Adult Literacy Survey, reported that 22% of adults were functionally illiterate, which means that they lack the ability to use reading, speaking, writing, and computational skills in everyday life and work situations.

Why Are Readers Struggling?

One key diagnosis made concerning struggling readers is that their critical deficiency is found to be in their “poor ability to decode words or apply letter-sound correspondence rules in the absence of word-specific memories and contextual cues”(Catone & Brady, 2005, p. 55). Brady and Catone cite studies that show virtually every sample of older poor readers exhibit deficits in phoneme awareness, regardless of their IQ or social class. Furthermore, older poor readers also had a tendency to rely more on word specific associations than on decoding skills, were weak in fluency and slow in reading paragraphs with trouble pronouncing real words. Catone and Brady contend that given the pervasiveness of reading impairment, one interpretation might be that students simply are not being adequately remediated (2005).

Many theories and explanations exists that try to determine why there is a reading ability discrepancy in latter grades. One fact, clear from several studies however, is that early progress in reading does not indicate later success in reading (McQuillan 1998). An analysis of studies completed by Krashen (1997) indicates that early metalinguistic training could not be used to guarantee a sustained rate of success later. This issue of an early start and latter decline does not leave McQuillan baffled. McQuillan contends that what most students are missing in the effort to ensure reading literacy is access to available print. He further posits that the amount of reading a student actually engages in is directly related to the amount of print available to the student. McQuillan is a stanch advocate of the print rich environment. He bases most of his research theories on this idea of making sure print is available in abundance.

Parris and Block (2007) insist that the issue with secondary literacy in today’s society is a lack of adequate teacher preparation and professional development. Paris and Block contend that past research indicates elementary children of all ages profit from exposure to specific types of literacy instruction, which depends heavily on where a child may be in literacy development.

Because of these findings, the researchers conclude that it is reasonable to assume, “that distinctive types of teaching are needed at the distinct stages of literacy development for secondary students” (p. 582). In further examination Parris and Block make delineations for which instructional features possess the potential to do the greatest good for the greatest number of adolescents.

These features include that quality secondary teachers:

- (1) know what to do, when to do it, and how to implement successful instruction effortlessly and automatically.
- (2) can diagnose and teach so students overcome basic reading deficits.
- (3) collaborate with students, as often demonstrated in rich co-constructed instructional approaches.
- (4) model what they expect their students to do before students begin their work.

Information that is presently needed in secondary education is how to implement these features effectively. In their conclusion, Parris and Block (2007) urge the importance for all secondary teachers to become literacy teachers. Content-area teaching is seen by many as most effective when teachers are able to incorporate other disciplines (Gaskins, 2001).

Helping Struggling Readers

Dunston (2007) insists that the key to eliminating secondary reading deficiencies is getting high school students to overcome negative perceptions about themselves as learners. Dunston maintains that after working in Title I high schools for many years, she began to see a pattern emerging among students. This pattern consistently showed that her poorest readers were always those who had been in the Title I reading programs since elementary grades. Dunston

began to question that if these students were in fact being sufficiently remediated in reading than why were they never pulled out. With further investigation, Dunston discovered that “these students had been ridiculed by peers, experienced poor grades, and had advanced little in reading ability”(p. 328). After realizing these issues, Dunston sought help in changing her approach in teaching these students. Her next step involved conducting research to find methods that worked. Dunston was convinced from this point forward that what she had been doing would not work to help students become literate. Dunston recalls that she immediately discontinued her skill-and-drill instructional approach. Her new approach involved meeting with content area teachers of her students. Dunston used the learning-objectives of these teachers to design her reading assignments. She worked on vocabulary and incorporated basic concepts on which the content area classes were focused. Dunston was attempting what Luke and Elkins (2000) had coined as re/mediation. She sought to increase motivation in her adolescents, build lessons from their prior knowledge, and appropriate a variety of texts. The content area teachers that Dunston worked with noticed a difference in attitude and achievement in her students, but to Dunston’s dismay, none of the content area teachers opted to change strategies in their own classrooms.

Paris and Block (2007) would certainly agree with Dunston’s change in attitude and strategy. The initiative taken by Dunston is what researchers are saying must be the norm in order to see improvement in reading on the secondary level. Older students, who have experienced a history of failing grades associated with behavior problems are far more likely to dropout due to the lack of change in schools and the failure to meet their needs (Gaskins, 2005). Intervention school co-founder Irene Gaskins (2005) calls on teachers and schools to re-define how they interact with the older students, and how they label the students. Gaskins holds that the philosophy of school should strive to protect children by regarding underachievers as students with different learning styles rather than students who are disabled. According to Gaskins

students with learning disabilities tend to act out and ruin class instruction activities so that they may isolate themselves from the teacher. In his book on strategic reading, Jeffery Wilhelm (2001) points out that all behavior has meaning, and when students are hesitant about reading or simply avoid it, this is their way of crying out for help. Wilhelm further asserts that not all students who struggle with reading act out negatively however. He posits this with an example of the pretty little girl who when called upon simply smiles and says something funny to avoid answering. Consistent behavior of this type can signify a struggling reader. Wilhelm also instructs teachers to think through the ploys and schemes of would be struggling readers in an effort to identify those who may have learned the success of these ploys to avoid detection by teacher and peers.

Role of Multiculturalism

Examining student behavior is one of several keys in furthering the education of struggling secondary readers, but researchers have listed multicultural awareness as another strong weapon in this battle. Bryant (2003) has found that minorities are suffering far greater in schools, and their specific needs must be addressed. Bryant has discovered that in the early teen years 47% of African-Americans, 46% of Hispanic, and 39% of American students have scored below the basic level in reading. Bryant further reports that the NAEP (National Assessment of Education Progress) has identified inferential comprehension and writing abilities as the greatest weaknesses for the minority students. Tatum (2005), who has done extensive research on black urban males and their quest for literacy, agrees with other researchers who have labeled the educational discrepancies between black and white students in America as one of the most “stubborn and pernicious manifestations of racial inequality in our country in our country”. Tatum has identified four major barriers that stand in the way of closing the reading achievement gap between poor black adolescents males and other American students:

- 1) No clear strategy has emerged on how to attain this goal.
- 2) No clear definition of the role of literacy instruction for black males exists.
- 3) Educators disagree on how to provide effective reading instruction for struggling readers, particularly for those past the primary grades.
- 4) Educators and policymakers have focused on strategy and skill instruction while ignoring curriculum orientation, forms of pedagogy, and other factors found to be effective in increasing reading achievement for African-Americans.

Tatum insists that effective teachers must go beyond reading instruction in order to reach black students. He, a black male himself, explains that his teachers were successful in his life because they understood that texts placed before him needed to address the psychological and emotional scarring that resulted from his everyday life. Tatum acknowledges that there are few texts that have explored the connection between culture and adolescent learning, but he does cite research confirming the idea that “an instructional approach disconnected from students’ culture creates student resistance.” Tatum takes a strong position on administrative and instructional changes in this area. He posits that is fundamental at the most basic level in order to reach the black adolescent male. Tatum further posits that cultural responsive instruction will offset resistance due to cultural differences. There are three strands according to Tatum that schools must utilize in order to more effectively assist minority student literacy needs. These strands include:

- 1) Theoretical Strands, used in planning instruction- structure empowering curriculum orientations
- 2) Instructional Strands, for classroom practice- mediate literature, use a comprehensive framework for teaching reading, strengthen assessment profile
- 3) Professional-development strands, to continually strengthen teacher performance- establish professional communities, conduct teacher inquiry

It is through these strands the author insists, that must become a focus for the successful literary advancement of minority students.

Multiculturalism advocates, Diamond and Moore (1990), make assessments similar to those of Tatum in their book, *Multicultural Literacy: Mirroring the Reality of the Classroom*. Diamond and Moore posit that literacy is attained more readily by an awareness of cultural background and identity. These authors further claim that it has become imperative that schools incorporate a literacy strategy they have termed, multicultural literacy. This term is not a new idea, the authors insist, but is instead a method for literacy that researchers and educators have been grappling with for decades. Diamond and Moore define multicultural literacy as the process of linking the cultural experiences, histories, and languages that all children bring to school with the language learning and academic learning that take place in the school. The authors further posit that multicultural literacy “activates silent voices, opens closed minds, promotes academic achievement, and enables students to think and act”. Because schools consist of children from different cultures, ethnic groups, and races, Diamond and Moore point out that it is important to have literature that reflects all groups. This point is backed by research, which proves that in reading instruction students’ life experiences and cultural backgrounds influence the degree of comprehension and memory they achieve (Diamond & Moore, 1990).

However, before educators charge full speed ahead in purchasing and acquiring all kinds of multicultural literature, researchers note that any discussion involving diversity in schools must begin with an understanding of children’s family and community experiences. It is also maintained that without knowledge of where children come from and without the knowledge of their language learning experiences, school becomes a place where poor achievement and discontent fester, especially in the area of literacy (Diamond & Moore, 1990). Therefore, it is the conclusion of many educators that it behooves all teachers and administrators to study their

students and learn about their cultural background and language learning experiences within their homes and communities in order to adequately facilitate and maximize learning.

In explanation of their theories on multicultural literacy, Diamond and Moore (1990) first present the rationale for a multicultural literacy focus in today's classrooms. The rationale for a multicultural literacy focus includes: shifting school populations, changes in the workplace, and conflicting visions of what our society should be. In the discussion on shifting school populations, the authors trace America's population from the beginning of colonization until now making a note about the rise in the number of the various cultural and ethnic groups that have comprised this country. According to the research presented here, the rise in ethnic diversity is significant because this multicultural trend is not regional but stretches across the entire continental U.S. affecting neighborhoods and schools that were once mono-cultural. This shift means that teachers who once taught only one culture are now face to face with students who speak different languages, different immigration experiences, different socioeconomic status, and different degrees of acculturation. Teachers who are faced with this shift may have no experience or preparation to deal with these differences.

The authors relate changes in the workplace to the growing demand for employees who are competent and able to work with people who are different. America now has the greatest global network of businesses and employees than ever, so students who join the workforce without the ability to connect and effectively form a team with those who are different may be out of a job. The book's authors emphasize that educators must face this demand to prepare students to meet the challenges of workplace diversity through exposure to different cultures.

The rationale for multicultural literacy also includes conflicting visions of what our society should be. In this section the authors note that issues like racism and sexism still compete for the minds of our students, therefore an appreciation of difference is key to any

school's success in grooming students for the outside world. The authors believe that through a curriculum with a focus on multicultural literacy is a place to combat these issues.

Largest Struggling Reading Groups

It is no secret that the main groups faced with the highest percentages of reading deficiencies are African-American and Latino populations. Ferguson (2004) of the John F. Kennedy School of Government, maintains that in the coming decades there will be no single ethnic majority group in the United States, but African, Latino, and Asian Americans will serve as the dominant group. He further maintains that it is to the advantage of the social, political, and economical fiber of the American government to ensure the literacy of all minority groups. Strickland and Alvermann (2004) take this issue a step further and assert that literacy issues are aggravated not only by race but also socio-economic status. According to these authors literacy and family income have a close connection. Variables used to indicate socio-economic status include: household income, parents' education and occupation. These variables are weighted alone or in some combination. Families that have a low socioeconomic status (SES) are not the only worry for Strickland and Alvermann (2004), but they point out that these families often live in SES communities. SES communities affect the child as an individual and the group of children living in the specified place. The authors cite statistics and reports that show economically disadvantaged neighborhoods receiving less funding for education than their more affluent counterparts. Also, reports show that the achievement rate for students is lower in SES communities than for students who are SES but attend school in an affluent community.

Strickland and Alverman also cite linguistics as a deterrent to reading achievement. According to the authors low academic achievement has been associated with African Americans and Latino children who do not speak standard English. A dialect or non-English speaking home is not a problem in itself. The authors have found that academic problems are only exacerbated

by this linguistic difference. Also, studies do show that during the middle grades standard English encouragement does in fact work. Most educators however are reluctant to bring attention to the problems of linguistics due to the sometimes sensitive nature of such a subject. The students should not be made to feel that their language is inferior or somehow non-effective, but educators have a duty to help the students improve in their oral skills.

Many students face obstacles daily that impair or work against their ability to achieve grade level literacy, but the odds appear to be doubly stacked against minorities. The power of the educator is simply not extensive enough to eradicate all the obstacles minority students may face. The educator's job however, is to do as much as possible within his or her sphere of influence to make a difference. This is why subject content area high school teachers have much more power than they realize. Because the students are already in the classroom, a social studies teacher, biology, and other subject area teachers can find creative ways to incorporate reading skills acquisitions into the lessons that can directly target to minority students. Catone and Brady (2005) report that "students' reading needs are often served by providing training in study skills and vocabulary development aimed at improving reading comprehension with the emphasis on helping them succeed in the content area courses required for graduation" (p. 69).

Older Students' Struggles Remain Unidentified

Many times it is difficult for older students to be identified as struggling readers. Only those who have either been placed in special education or have already failed two or more grades are targeted for intervention. Also, students create ways in which to hide their deficits. In case study Doak (2006) discovered that one of her patients revealed his strategy for keeping his teachers in the dark about his reading problem. The student simply asked the teacher what each question meant and would answer test questions from the teacher's comments. Students like Doak's patients are actually common in schools.

Teachers are another reason struggling older readers can remain unidentified. According to Catone and Brady (2005) it has been reported that some teachers of older students question the efficacy of remedial approaches. The authors further note that these teachers often want older students who are struggling to read to focus on social skills, career awareness, and independent living strategies. Also, other studies indicate that some teachers appear pessimistic about the prospect of teaching skills such as decoding to students who have not mastered them by the eighth grade (Catone & Brady, 2005). The study goes on to report that “teachers questioned the pedagogical soundness of teaching isolated skills and assumed that adolescent learners would be resistant to training in decoding, surmising that older students may find instruction in basic skills demeaning and less appealing than content area subjects” (p. 69).

Researchers suggest that high school curriculum focuses almost entirely on the acquisition of content knowledge. This suggestion leaves little room for teachers to present decoding skills and context clues. Because of this, many remedial efforts by special education high school teachers are geared primarily toward a particular reading problem driven by subject matter such as decoding vocabulary from a biology textbook.

Another possibility for the lack of help for older struggling readers lies again in the hands of teachers. Many high school teachers admit to feeling inadequate to handle reading services that older struggling readers require. High school teachers lack the necessary skills to teach what these students need (Catone & Brady, 2005). A research firm gathered information how teachers respond to literacy problems in high school students. Twenty percent of regular education teachers and only 10% of special education teachers reported adequate preparation in understanding the foundations of reading instruction. Another research organization found that there were even fewer percentages of teachers that had any knowledge about things like sound components and structural analysis of words that often are the basis for systematic decoding instruction (Catone & Brady). This is through no fault of theirs however. Most college education

programs do not require a reading instruction component in order for students to obtain secondary teacher certification. Secondary teacher programs are oftentimes inundated with content area requirements and a small measure of pedagogy requirements.

However an earlier study by Catone indicated that many high school teachers would be willing to receive training in teaching decoding and reading comprehension strategies.

If teachers are willing to receive training in order to more effectively reach older struggling readers, then the problem with remediation for these students lies with the administration. One or two things could be happening with education administrators. First, they may not be aware of reading deficits in their area high schools, or the awareness may be in place but lack of funding and resources prevents their implementing new strategies. Second, if there is a small percentage of students who are failing, then community outcry against the school ineffectiveness will be nonexistent. Administrators on local, state, and national levels can often be forced into action regardless of available funding when the community steps in and makes vocal assertions about needful change.

Older Struggling Readers Can Grow

Catone and Brady (2005) question in their article if school districts are actually wasting valuable time and resources in their efforts to remediate older struggling readers, but there answer was a strong and definitive, no. There is a strong emerging body of evidence that suggests, the authors point out, that there are effective ways of getting high school struggling readers to grow. This effort must begin with some form of student empowerment. Many adolescent students who struggle with reading have been doing so for a very long time. Also, many of them have had very little success in the classroom across the board not simply in reading. Although some of them fail to connect the possibility that it is their lack of reading skills that could be slowing them down, they see themselves oftentimes as unable to learn,

stupid, or hopeless. Research also suggests that many of the older struggling readers are from low socio-economic backgrounds, which more often than not means single parent homes, little to no emotional support, unstable home environments, and uneducated parents. All of these factors play a role in how the older struggling reader is influenced and views himself or herself. Tatum (2001) suggests that curriculums must learn about the students home life and begin remediation from that vantage point. He also points out that the students must feel that doing well in school matters and if past failures are all they have, then the teachers must advocate the value of reading because the student does not have an internal positive value for it.

A five-year study of English programs, conducted by Langer (2000), found significant differences between effective and ineffective literacy programs. The report revealed that out of the 44 successful classroom programs only six maintained consistent instructional practices:

1. Teach students using a variety of activities, including independent lessons, exercises, and drills; lessons involving reading and writing about new concepts and information; and lessons in which students apply new learning in class discussions.
2. Prepare students for tests by emphasizing the knowledge on which they'll be assessed, and integrate test preparation into daily lessons instead of giving students separate drills.
3. Incorporate students' real-life experiences both in and out of school into daily lessons.
4. Give students critical reading and writing strategies they need to succeed on daily lessons and homework assignments.
5. Provide time for students to read broadly on topics of interest, explore texts from many points of view, and conduct their own research.
6. Foster collaborative learning by placing students in well-chosen groups.

Prompt students to raise questions, discuss ideas, and “bump minds” with one another.

After this study however, the report mentions that playing catch in middle school and high school is not the most effective way to change literacy problems. The authors stress the importance intense reading intervention programs at the primary level as the most viable solution to America's literacy crisis.

Savage's (2001) study proposes that the best possible way to remediate reading problems is to address higher order cognitive problems. Savage also presents evidence on two invention approaches that had lasting impact on reading difficulties. He suggests that listening comprehension is one of the main deficits for struggling readers. Savage proposes that the two invention approaches that mainly promote listening, memorization, and daily reading aloud are the best possible measures adolescent struggling readers can take. This method is called the simple reading view. Savage and other researchers have done extensive experiments on the effectiveness of listening comprehension strategies and decoding strategies for the high school classroom.

Hock (2003) assumes that the first step in literacy intervention for the older reader is to ascertain their places on the reading continuum. Hock outlines the five basic levels for the readers in general including: below basic, basic, proficient, and advanced. According to the Hock(2003) students can be best be described in one of those five levels. An example of measures for each level include:

8th grade students below basic level can identify two explicitly state facts from an article and use text to recognize the definition of a specific term. Students at the Basic Level can recognize the central idea in an article, identify a story's theme, and provide specific text references to support a generalization. Students at the Proficient Level can use metaphor to interpret character and understand the directions for completing a document form. Those at the Advanced Level can explain thematic differences between poems and compare different descriptions to integrate character (p. 36).

Hock (2003) insists that these different levels in the continuum emphasize the importance of schools implementing literacy instruction that spans grades 9 through 12. Hock adds that literacy is so vital that after-school intervention should also be an option in schools.

The author also says that with NCLB school districts should now explore every option to find intervention strategies that work. Hock advocates the use of the five tiered intervention approach. This approach includes five basic strategies for adolescent success.

Hock's five tiers include:

1. Ensuring mastery of critical content in all subject-area classes
2. Weaving learning strategies within rigorous general education classes.
3. Supporting mastery of learning strategies for targeted students.
4. Developing Intensive Instructional options for students who lack foundational skills.
5. Developing Intensive Clinical options for language Intervention (p.38).

Hock also warns that most adolescent readers will require help beyond these five tiers. He recommends before and after school tutoring programs that stress specific skills. This author insists that the adolescent struggling reader is not beyond the reach of caring, motivated educators.

Other promising interventions Hock promotes include: Reciprocal Teaching and FAME. Reciprocal Teaching was developed by Brown and Palincsar and has been shown to be effective in improving reading comprehension with middle school students. This intervention requires content-area teachers to teach four specific reading strategies: generating questions while reading, predicting what will happen next, summarizing what's been read, and clarifying difficult material. With this approach teachers must engage students in extended dialogue and discussion to make these strategies effective.

FAME was developed by Curtis and Longo. The development took place at the Boys Town Reading Center with older struggling readers in mind. This intervention is designed to work with small-groups and direct-instruction. Students are placed in a sixteen week program and taught mainly through modeling and teacher-guided student practice. The authors claim that students gain over two grade levels after at least 36 weeks of instruction.

The Strategic Instruction Model (SIM) also gained nation-wide attention as an outstanding literacy intervention program. This model focuses on providing intensive teacher feedback. This is a research-based reading program. Students are taught in small, pullout groups. Instruction last for about three to six weeks depending on what the student requires for mastery.

Hock (2003) further points out that literacy problems are not isolated incidents, but affect every state and territory in America. This is a problem that demands intensive awareness strategies for parents, communities, and educators. Because thousands of high schools students arrive each year to schools without adequate skills to compete, Hock (2003) recommends the following guidelines to assist state and local official in better preparing students:

1. Identify current practices being successfully used to improve literacy skills in high schools throughout the country.
2. Establish demonstration sites to showcase the programs and practices that produce significant outcomes for adolescents with literacy problems.
3. Support professional development programs and practices that produce significant outcomes for adolescents with literacy problems.
4. Change initial teacher preparation programs to include increased attention to literacy instruction (p. 39).

Many states are implementing strategies that combine techniques much those outlined by Hock. The state of Mississippi for instance has made a significant move in the area of remediation for the older reader.

America's Choice-RampUp Literacy

The state of Mississippi has implemented a program that addresses older struggling reader issues. This program currently in pilot form has been implemented in five school districts across the state. Through this program, Mississippi has hired an independent literacy agency, America's Choice, to provide literacy instruction. The state and district curriculums have no role in the strategies used by America's Choice. Under America's Choice students entering the ninth grade who are reading at least two grades below proficiency are placed in a special reading intervention class. The class is 90 minutes long and meets every day. The class size is limited to no more than twenty students. If students do well in the first year, they will then proceed to a second year of the program. If they do not perform well the first year, then students are returned to regular classes.

The first and second high school years of literacy treatment are strictly regimented. The students are taught expected procedures and routines through daily lessons during the first few weeks of each program year. There are many strategies and routines that must be observed daily such as independent student reading time, teacher read-alouds, open discussion, and reading strategy application. Small group work sessions are also a part of the normal work day routine.

Students are also saturated with fundamental reading strategies. The students are asked to apply the reading strategies after they read aloud. Everything from Jim Trelease's read-aloud strategies to Nancy Atwell's writing strategies are incorporated to identify literacy deficits in each student. Teachers are encouraged to keep daily records of reading patterns and analysis to measure improvement and/or weaknesses in student reading.

Near the end of the second redesign year (about 10th grade), high students across Mississippi are tested on reading comprehension, grammar usage, and mechanics through the Mississippi English Subject Area Test. It is without a doubt each school district's hope that here is where the redesign quality and success will be proven. The students will not have had a reading comprehension test since the eighth grade.

Explanation of Theoretical Basis

The America's Choice curriculum is actually based on the shared reading literacy theory. This theory has its foundation in Vygotsky's two-sided theories of instruction. The shared reading theory promotes teaching in ways that are informed by transaction. To explain further, this theory is one that says a relevant transaction must occur between the student and the text in order for learning to take place. This theory also promotes a teacher and student collaboration effort in the classroom. This means that the teacher and students work together to pull out textual meanings and in exploring thematic issues. This theory further promotes that literary meanings result from conversation (transaction) of reader and author (sometimes teacher) through the medium of text. This approach is common in workshops where the students are reluctant readers. This theory is the result of research by Rabionowitz , Smith, Rosenblatt, and Wilhelm (Wilhelm, 2006).

Chapter III

Methodology

Research Design

This study will utilize the quasi-experimental design to investigate the effectiveness of America's Choice Ramp Up Literacy Program on reading achievement. Creswell (2003) suggested quasi-experimental designs when the investigator will use experimental groups without random assignment of the groups' participants. Experimental groups will be used for this study. Random assignment of participants in the experimental group will not be possible, due to the fact that this group will be intact before the investigation begins. The experimental group will consist of students who will receive literacy intervention through America's Choice.

This study will also include the administration of pre and posttests to both groups, which according to Creswell is the classical tradition of the experimental designs. The pretests and posttests will serve as the dependent variable. The experimental groups will serve as the independent variable.

Hypotheses

Hypothesis One: There is no significant difference in mean pretest and posttest scores for School A.

Hypothesis Two: There is no significant difference in mean pretest and posttest scores for School B.

Hypothesis Three: There is no significant difference in mean pretest and posttest scores for School C.

Population, Sample, and Subjects

The intended population for this study was Mississippi high school students who are struggling readers. There was no exact number or estimate found to indicate exactly how many of Mississippi's school children are struggling readers, but the state dropout rate was a staggering 17 percent in 2006, and there were five school districts out of 152 that had not received state academic accreditation (Mississippi Department of Education).

With the inception of a program like America's Choice, it can be inferred that the state has taken notice of the struggling reader population.

The sample for this study was selected during Spring 2009. The sample data came from three pilot school districts in Mississippi. In the event that all four districts fail to comply with curriculum and other guidelines set forth by RLIP then some of them may not be used in the study.

This study includes three groups of participants. Group one's participants included all students who participated in the literacy intervention for at least one at year in School A. Group two included students who participated in the literacy intervention for at least one year in School B. Group three included students who have participated in the literacy intervention program for at least one year in School C. The subjects were male and female between the ages of 15 and 19. From information already reported by the State, most of the subjects in all groups will be African-American with only 10 percent Caucasian and less than 3% Asian and Hispanic.

Data was collected in three intervals. The first interval of data collection consisted of student scores from the eighth grade MCT II reading comprehension section. Students in the

experimental groups of the study took the MCT II. How well students performed on this test determined whether or not they were placed in the Ramp Up Literacy Program.

The second interval of data collection consisted of scores from the tenth grade English Subject Area Test (reading comprehension section only). The English Subject Area Test is a criterion referenced test that must be taken after a student completes a second high school year of English. A comparison was made regarding how well subjects performed on the eighth grade tests, taken before intervention; and, how well they performed on the English Subject Area tests, taken after intervention. Interventions took place in the ninth grade.

Instrumentation

Two criterion referenced tests were used as measuring instruments. The first was the Mississippi Curriculum Test II (MCT 2). Only the reading comprehension section of this test was used. This test is taken during several grade years in Mississippi, but only the eighth grade results will be used in this study. These results will be used as the pre-treatment scores. The second test was the Mississippi English Subject Area Test (ESAT). Only the reading comprehension section of this test was used.

According to the state of Mississippi parent test brochure and the state's webpage on redesign, these tests are both reliable and valid (MS State Dept. of Education). The numbers for reliability are available, and will be recorded before data collection begins. Scores from these tests are private until the state releases their observation only time period. MCT II and ESAT scores will then be printed in area newspapers for public information.

Procedures

First, IRB approval and dissertation committee approval was obtained. Second, approval from school districts was obtained. Scores from the state tests were in the public domain at the

time that this study was conducted, but permission from the district had to be obtained in order to identify which scores belonged to redesign students. The Mississippi State Department of Education was contacted to obtain all scores.

Statistical Tests and Data Analysis

A paired-samples t test was the statistical test for hypothesis one. In this hypothesis, the dependent variable was the test scores. The independent variable was the intervention given to groups who participated in the program in years one, two, and three. According to Gall, Gall, & Borg (2007) the paired samples t- test is useful when the researcher is not able to match all variables that two groups may have in common. Gall, Gall, & Borg (2007) further explained that with the paired samples t test, the researcher is able to focus on the variable that is the main concern of the investigation.

The paired- samples t test was the statistical test for hypotheses two and three as well. The dependent variable was the test scores, which will be indicated by the letter y. The independent variable was the intervention given to groups for each of the program years, one, two, and three. These hypotheses covered three program years for Schools B and C. The program years began with the 2004- 2005 school term for pretests and 2006-2007 school term for posttests.

Summary

In this chapter, the researcher presented the methodology for the intervention study. The problem statement was restated, and a description was given of the groups that were selected. Also, the method of selection and the proposed method for analysis were presented.

The results of the study are provided in chapter IV. A greater dept of demographic data for participants is listed in Chapter IV. Data analyses were explained and displayed in tables to clarify information from the study.

Chapter IV

Analyses of Data

Introduction

The purpose of this study was to examine the effectiveness of the Ramp Up Literacy acceleration program on 8th grade students' reading comprehension scale scores from three school districts as measured by Mississippi's Subject Area Test Program (SATP) and the Mississippi Curriculum Test, Second Edition (MCT 2). This chapter commences with descriptions of the participants including grade level, pre- and posttest reading comprehension scores, and selection process. Next, an analysis of data related to hypotheses was discussed with respect to paired t-testing. The paired t-test was conducted to examine whether or not students performed differently in reading comprehension after treatment. The researcher compared means of pre- and posttests scores among students within their own school districts. The independent variables were the student groups receiving the intervention, and the dependent variables were the posttest reading comprehension scores.

Participants

The sampling for this quasi-experimental study consisted of a total of 252 students representing three high schools over three school terms across Mississippi. All students who were selected for treatment through the Ramp Up Literacy program were determined by their school districts to be reading two or more years below grade level. These students were selected during their first year of high school for the Ramp Up Literacy program based on eighth reading comprehension scores as measured by the MCT 2 and their previous academic records. Students selected for the program had scores ranging from one to two on a scale with four as the highest possible score. A score of one represented below basic reading skills, and a score of two

represented basic reading skills. A score of three represented proficient reading skills, and a score of four represented advanced reading skills.

Students received treatment or remediation through the Ramp Up Literacy program in their first year of high school. During their second year of high school, they were tested through Mississippi's Subject Area Test Program. The reading comprehension scores of the English Subject Area Test were used as posttest scores for this study. The MCT reading scores were used as pretest scores for this study.

Tables 1, 2, and 3 represent the first school in the study, School A. Table 1 shows School A's pretest and posttest scores for the first program year of Ramp Up Literacy. School A began its program with 30 students. Five students were selected with pretest scores of one and the remaining 24 with pretest scores of two. Five out of the 30 students scored one level higher on the posttest. One student scored one level lower on the posttest.

School A

Table 1

8th Grade Reading Score

10th Grade Reading Score

04-05 (= 30)

06-07 (N=30)

Selection

Post-Selection

1

1

1

1

1

1

1

2

1

2

2

1

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2
2
2
2
2
2

2
2
2
3
3
3

Mean = 1.8333

Mean = 1.9667

Table 2 shows School A's pretest scores from the 2005-2006 school term of the Ramp Up Literacy program and posttest scores that resulted for these students during the 2007-2008 school term. This was School A's second year using the program. Forty-one students were selected for treatment during that school term.

School A

Table 2

8th Grade Reading Score

10th Grade Reading Score

05-06 (N= 41)

07-08 (N=41)

Selection

Post-Intervention

1

1

1

2

1

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

Table 3 shows School A's pretest scores from the 2006-2007 school term of the Ramp Up Literacy program and posttest scores that resulted for these students during the 2008-2009 school term. This was School A's third year using the program. Forty students were selected for treatment during that school term.

School A

Table 3

8th Grade Reading Score

10th Grade Reading Score

06-07 (N= 40)

08-09(N=40)

Selection

Post-Intervention

1

1

1

1

1

2

1

2

1

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

Table 4 illustrates the first year of School B's program. Pretest scores resulted in the 2004-2005 school term. Posttest scores resulted the 2006-2007 school term, the second year of high for these students. Ramp Up Literacy treatment took place in 2005-2006 school term, the intervening year between the pretest and posttest years. School B enrolled 20 students in its first year Ramp Up Literacy program.

School B

Table 4

8th Grade Reading Score	10th Grade Reading Score
04-05 (N= 20)	06-07 (N=20)
<u>Pre-Intervention</u>	<u>Post-Intervention</u>
1	1
1	1
1	1
1	1
1	1
1	2
1	2
1	2
1	2
2	1
2	2
2	2
2	2
2	2
2	2
2	2

2

2

2

2

2

2

2

3

Mean = 1.5500

Mean = 1.7500

Table 5 illustrates the second year of School B's program which indicates pretest scores in the 2005-2006 school term. Posttest scores resulted the 2008-2009 school term, the second year of high school for these students. School B selected 25 students in this second year Ramp Up Literacy program.

School B

Table 5

8th Grade Reading Score

10th Grade Reading Score

05-06 (N= 25)

07-08(N=25)

Selection

Post-Intervention

1

1

1

1

1

1

1

1

1

1

1

2

1

2

1

2

2

1

2

1

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

3

2

3

2

3

2

3

Mean = 1.6800

Mean= 1.8800

Table 6 illustrates the third year of School B's program which indicates pretest scores in the 2005-2006 school term. Posttest scores resulted the 2008-2009 school term, the second year of high school for these students. School B selected 20 students in this second year Ramp Up Literacy program.

School B

Table 6

8th Grade Reading Score

10th Grade Reading Score

06-07 (N= 20)

08-09 (N=20)

Selection

Post-Intervention

1	1
1	1
1	1
1	2
1	2
1	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	3

2

3

2

3

Mean= 1.700

Mean= 2.000

Table 7 illustrates the first year of School C's program which mean pretest scores were included 2004-2005 school term, and posttest scores resulted during the second year of high for these students. The 2006-2007 school term was the posttest year. School B enrolled 20 students in its first year Ramp Up Literacy program.

School C

Table 7

8th Grade Reading Score

10th Grade Reading Score

04-05 (N= 27)

06-07 (N=27)

Selection

Post-Intervention

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

2

1

2

1

2

2

1

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2
2
2
2
2
2
2
2
2
2

2
2
2
2
2
2
2
3
3

Mean = 1.6296

Mean = 1.7778

Table 8 illustrates the second year of School C's program which indicates pretest scores in the 2005-2006 school term. Posttest scores resulted the 2008-2009 school term, the second year of high school for these students. School C selected 20 students in this second year Ramp Up Literacy program.

School C

Table 8

8th Grade Reading Score

10th Grade Reading Score

05-06 (N= 26)

07-08 (N=26)

Selection

Post-Intervention

1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	2
1	2
1	2
2	1
2	1
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2
2	2

2
2
2
2
2
2

2
2
2
3
3
3

Mean= 1.6087

Mean= 1.7391

Table 9 illustrates the third year of School C's program which indicates pretest scores in the 2005-2006 school term. Posttest scores resulted the 2008-2009 school term, the second year of high school for these students. School C selected 23 students for the Ramp Up Literacy program.

School C

Table 9

8th Grade Reading Score	10th Grade Reading Score
06-07 (N= 23)	08-09 (N=23)
<u>Selection</u>	<u>Post-Intervention</u>
1	1
1	1
1	1
1	1
1	1
1	1
1	2
1	2
1	2
2	1
2	1
2	1
2	2
2	2
2	2
2	2
2	2
2	2
2	2

2
2
2
2
2

2
2
3
3
3

Mean= 1.6087

Mean= 1.7391

Data Analysis

Paired-Samples t Test

The first step in the data analysis was to administer a paired-samples t test for Hypothesis 1, which stated that there was no significant difference between pretest and posttest reading comprehension scores for School A. A paired-samples t test was conducted to indicate whether there were any significant difference between pretests and posttests reading comprehension scores for students who attended the Ramp Up Literacy intervention program in three Mississippi high schools. Paired-samples t tests were conducted for each school during each of the three school terms the program was utilized. There were three paired-samples t tests for School A, three for School B, and three for School C during each of the first three years the Ramp Up Literacy Intervention was utilized.

School A

In the first program year for School A, which was 2004-2005 for pretests and 2006-2007 for posttests, the paired-samples t test two-tailed significant factor was $(p=.103) > .05$. The pretest mean was $(M = 1.8333, S.D. = .37905)$ while the posttest mean was found to be slightly higher at $(M = 1.9667, S.D. = .49013)$, $t(29) = -1.682$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.13333 \div .43417 = -.30709$ or $.31$. This indicated a small effect size, since d values of $.2$, $.5$, and $.8$ traditionally represent small, medium, and large effect sizes respectively (Salkind, Green, and Akey, 2000, p. 145).

Based on the statistical results there was no significant difference in SAT posttests reading comprehension scores taken after treatment and the MCT II pretests reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for year 1 results at School A.

Chart 1 – Paired Samples Test

School A - Year 1

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.1333	.43417	-1.682

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	29	.103

For the second year of Ramp Up Literacy at School A, which was 2005-2006 for pretests and 2007-2008 for posttests, the paired-samples t test two-tailed significant factor was ($p = .002$) $< .05$. The pretest mean was ($M = 1.9268$, $S.D. = .26365$) while the posttest mean was found to be higher at ($M = 2.1463$, $S.D. = .42196$), $t(40) = -3.354$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.21951 \div .41906 = .52$. This indicated a moderate effect size d for the literacy treatment in the second year at School A.

Based on the statistical results there was significant difference ($p < .05$) in SAPT posttests reading comprehension scores taken after treatment and the MCT 2 pretests reading comprehension scores taken before treatment. The researcher rejects the null hypothesis for year 2 results at School A.

Chart 2 – Paired Samples Test

School A - Year 2

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.21951	.41906	-3.354

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	40	.002

For the third year of Ramp Up Literacy at School A, which was 2006-2007 for pretests and 2008-2009 for posttests, the paired-samples t test two-tailed significant factor was ($p = .000$) $< .05$. The pretest mean was ($M = 1.8750$, $S.D. = .33493$) while the posttest mean was found to be higher at ($M = 2.2000$, $S.D. = .51640$), $t(39) = -4.333$. The mean difference between pretests scores and posttest scores was equal to the mean for the pretests scores minus the mean for the posttest scores, which was $-.32500$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.32500 \div .47434 = -.68516$ or $.69$. This indicates a moderate effect size.

Based on the statistical results there was significant difference ($p < .05$) in SAPT posttests reading comprehension scores taken after treatment and the MCT 2 pretests reading comprehension scores taken before treatment. The researcher rejects the null hypothesis for year three literacy results at School A.

Chart 3 – Paired Samples Test

School A – Year 3

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.32500	.47434	-4.333

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	39	.000

School B

In the first program year for School B, which was 2004-2005 for pretests and 2006-2007 for posttests, the paired-samples t test two-tailed significant factor was ($p=.104$) $> .05$. The pretest mean was ($M = 1.5500$, $S.D. = .51042$) while the posttest mean was found to be higher at ($M = 1.7500$, $S.D. = .55012$), $t(19) = -1.710$, $p = .104$. The standardized effect size index, d , was computed by the equation $d=M \div SD$, or $d = -.20000 \div .52315 = -.38229$, or $d = .38$.

Based on the above statistical results, there was no significant difference in SAPT posttests reading comprehension scores taken after treatment and the MCT 2 pretest reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for year 1, School B.

Chart 4 – Paired Samples Test

School B – Year 1

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.2000	.52315	-1.710

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	19	.104

For the second year of Ramp Up Literacy at School B, which was 2005-2006 for pretests and 2007-2008 for posttests, the paired-samples t test two-tailed significant factor was $(p = .096) > .05$. The pretest mean was $(M = 1.6800, S.D. = .47610)$ while the posttest mean was found to be higher at $(M = 1.8800, S.D. = .66583)$, $t(24) = -1.732$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.2000 \div .57735 = -.34641$. This indicated a small effect size.

Based on the above statistical results, there was no significant difference $(p > .05)$ in English SAPT posttests reading comprehension scores taken after treatment and the MCT 2 pretest reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for School B, year 2.

Chart 5 – Paired Samples Test

School B – Year 2

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.2000	.57735	-1.732

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	24	.096

For the third year of Ramp Up Literacy at School B, which was 2006-2007 for pretests and 2008-2009 for posttests, the paired-samples t test two-tailed significant factor was $(p = .010) < .05$. The pretest mean was $(M = 1.700, S.D. = .47016)$ while the posttest mean was found to be slightly higher at $(M = 2.0000, S.D. = .56195)$, $t(19) = -2.854$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.3000 \div .47016 = -.63808$, or $-.64$. This indicated a moderate to large effect size.

Based on the above statistical results, there was a significant difference ($p < .05$) in SAPT posttest reading comprehension scores taken after treatment and the MCT 2 pretest reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for School B, year 3.

Chart 6 – Paired Samples Test

School B – Year 3

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.3000	.47016	-2.854

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	19	.010

School C

In the first program year for School C, which was 2004-2005 for pretests and 2006-2007 for posttests, the paired-samples t test two-tailed significant factor was ($p = .103$) $> .05$. The pretest mean was ($M = 1.6296$, $S.D. = .49210$) while the posttest mean was found to be higher at ($M = 1.7778$, $S.D. = .57735$), $t(26) = -1.688$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.14815 \div .45605 = -.32485$. This indicated a small effect size.

Based on the above statistical results, there was no significant difference in SAPT posttest reading comprehension scores taken after treatment and the MCT 2 pretest reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for School C, year 1.

Chart 7 – Paired Samples Test

School C – Year 1

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.14815	.45605	-1.688

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	26	.103

For the second year of Ramp Up Literacy at School C, which was 2005-2006 for pretests and 2007-2008 for posttests, the paired-samples t test two-tailed significant factor was $(p = .161) > .05$. The pretest mean was $(M = 1.6151, S.D. = .49614)$ while the posttest mean was found to be slightly higher at $(M = 1.7692, S.D. = .65163)$, $t(24) = -1.445$. The mean difference between pretests scores and posttest scores was equal to the mean for the pretests scores minus the mean for the posttest scores, which was $-.16000$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.16000 \div .55377 = -.28893$. This indicated a small effect size.

Based on the above statistical results, there was no significant difference ($p > .05$) in English SAPT posttest reading comprehension scores taken after treatment and the MCT 2 pretest reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for School C, year 2.

Chart 8 – Paired Samples Test

School C – Year 2

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.15385	.54349	-1.443

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	25	.161

For the third year of Ramp Up Literacy at School C, which was 2006-2007 for pretests and 2008-2009 for posttests, the paired-samples t test two-tailed significant factor was $(p = .161) > .05$. The pretest mean was $(M = 1.6087, S.D. = .4990)$ while the posttest mean was found to be slightly higher at $(M = 1.7391, S.D. = .68870)$, $t(22) = -1.000$. The standardized effect size index, d , was computed by the equation $d = M \div SD$, or $d = -.24000 \div .59722 = .21$. This indicated a small effect size.

Based on the above statistical results, there was no significant difference $(p > .05)$ in SAPT posttests reading comprehension scores taken after treatment and the MCT II pretests reading comprehension scores taken before treatment. The researcher failed to reject the null hypothesis for School C, year 3.

Chart 9 – Paired Samples Test

School C – Year 3

Paired Differences			
	Mean	Std. Deviation	t
Pair 1 PreTest – Posttest	-.13043	.62554	-1.000

Paired Differences		
	df	Sig. (2-tailed)
Pair 1 PreTest – Posttest	22	.328

Table 10

T-Tests Results

Ramp Up Literacy Schools	First Program Year	Second Program Year	Third Program Year	Effective Rate N/3
School A	Score results not significant	Significant score results	Significant score results	2/3
School B	Score results not significant	Score results not significant	Significant score results	1/3
School C	Score results not significant	Score results not significant	Score results not significant	0/3

An examination of the table above shows that none of the schools experienced significant increases in posttest scores during the first program year. School A experienced two significant years of posttest score increases, program years two and three. School B experienced one significant year of posttest score increase, program year three. School C experienced no significant posttest score increases. However, School C did experience a degree of change in scores each year.

Table 11

Effect Size Results for Ramp Up Literacy Program Years 1 – 3.

(d) = Effect Size (Program Impact)

Ramp Up Literacy Schools	Year 1	Year 2	Year 3
School A	Small = .31	Moderate = .52	Moderate = .69
School B	Small = .38	Small = .35	Moderate = .64
School C	Small = .32	Small = .28	Small = .21

The above table indicates the impact of the Ramp Up Literacy Program in terms of the effect size statistic, *d*. Readers should recall that the effect size is the magnitude of the “overlap” between two groups. As the magnitude gets larger, the two groups get more dissimilar (Salkind, 2008). Hence, in some years, the effect size or program impact ranged from small to moderate (i.e., it impacted students’ reading comprehension differently, over a three year period.), regardless of whether the mean differences were significant or not.

Summary

To conclude, chapter IV commenced by restating the purpose of this quasi-experimental study. Next, a description of participants and school and selections were given, including tables depicting pretest and posttest scores, and program years. Third, an analysis of data for the paired samples t-test was explained and depicted in graphs. Data was computed via SPSS.

For H_{01} the paired samples t-test was conducted to indicate whether there was any significant difference between pre and posttest scores for School A. The Paired Samples t-test indicated that there was no significant difference in mean test scores the first program year for School A. The p value for the first year was greater than .05 ($p = .103$). Therefore, the researcher failed to reject the hypothesis for the first year. The Paired Samples t-test did indicate, however, that there was significant difference between scores during the second and third years of the Ramp-Up Literacy program in School A. In the second year the p value was less than .05 ($p = .002$). In the third year again the p value was less than .05 ($p = .000$). In the second and third years, the researcher rejected the null hypothesis.

For H_{02} the paired samples t-test was conducted to indicate whether there was any significant difference between pre and posttest scores for School B. The t-test indicated that there was no significant difference in mean test scores the first and second program years for School B. The p value for the first year was greater than .05 ($p = .104$). The p value was also greater than .05 the second year ($p = .096$). The t-test did indicate however that there was significant difference between scores during the third year of the Ramp-Up Literacy program in School B. In the third year the p value was less than .05 ($p = .010$). Therefore, the researcher failed to reject the hypothesis for the first and second years. In the third year, the researcher rejected the null hypothesis.

For H_{03} the paired samples t-test was conducted to indicate whether there was any significant difference between pre and posttest scores for School C. The t-test indicated that there

was no significant difference in mean test scores the first, second, or third program years for School C. The p value for the first year was greater than .05 ($p = .103$). In the second program year, School C, p value = .161. The Paired Samples t-test indicated that there was also no significant difference between scores during the third year of the Ramp-Up Literacy program for School C. In the third year, the p value was greater than .05 ($p = .328$). Therefore, the researcher failed to reject the hypothesis for the first and second years. In the third year, the researcher again failed to reject the null hypothesis for School C.

Chapter V will offer conclusions on the results of this quasi-experimental study. Recommendations and implications for future studies similar in nature to this one will also be available in Chapter V.

CHAPTER V

Conclusion, Inferences, Recommendations, and Implications for Further Research

Introduction

This chapter commences with a summary of the study. A description of the participants and schools involved is presented. Also, conclusions based on the data analysis in Chapter IV are presented as well as inferences regarding the statistical results. Lastly, theoretical foundations, recommendations and implications for future studies of Ramp Up Literacy programs are included in this chapter.

Summary of Study

The purpose of this quantitative study was to examine the effectiveness of the America's Choice Ramp Up Literacy intervention program on reading composite scale scores, as measured by the Mississippi MCT II and Mississippi Subject Area Test Program. The researcher was interested in the effect this program had on three Mississippi high schools during the first three years of implementation. Pretests were taken one school-term prior to treatment during the eighth grade year. The next year or first year of high school students were engaged in a 90 minute reading and language intensive program, America's Choice Ramp Up Literacy. This program was designed to increase literacy for students who were reading one or two levels below their grade. After a year of treatment, the students were tested again, but took the Mississippi Subject Area Test Program in English. It is the reading comprehension section of this English test that was used as a posttest for this study.

There was a total of 252 participants representing three schools and three years in the study. School A was the largest of the three schools. During the first program year for School

A, there were 30 participants selected. In School A's second program year, there were 41 participants selected, and in year three there were 40 selected participants. In the first program year for School B, there were 20 participants selected. In the second program year School B selected 25 participants and in year three, there were 20 participants selected. In the first program year for School C, there were 27 selected participants, and years two and three had the same number of participants which was 25.

For H_{01} a paired samples t-test was conducted to indicate whether there was significant difference between pre and post test reading comprehension scores for students who were treated through the Ramp Up Literacy Program in School A. There was no significant difference in scores for School A's first year of program utilization. Therefore, the researcher failed to reject the null hypothesis for year one. In the second program year at School A, there was significant difference in scores with a statistical value at .002 ($p < .05$). In year three, again there was significant difference in pre and post test reading scores with a statistical value of .000 ($p < .05$). Therefore, the researcher failed to reject H_{01} for years two and year three in School A.

For H_{02} a paired samples t-test was conducted as well to indicate whether there was significant difference between reading comprehension pretest and posttest scores for School B. In the first and second program years for School B, the researcher found that there was no significant difference in reading comprehension pre and post test scores. Therefore, the researcher failed to reject H_{02} for the first and second program years at School B. The statistical value for the first year was .104 ($p > .05$). The p value for the second year was .096 ($p > .05$).

In the third program year for School B, there was significant difference in mean pretest and posttest reading comprehension scores. There was a statistical value of .010. ($p < .05$). The researcher therefore rejected the null hypothesis for program year three at School B.

A paired samples t-test was again conducted for Hypothesis 3 to indicate whether there was any significant difference in mean pretest and posttest reading comprehension scores for

School C. There was no significant difference in scores for any of the three program years at School C. The researcher therefore failed to reject Hypothesis 3. In the first year the statistical p value was .103 ($p > .05$). In year two the p value was again higher than .05 ($p = .161$). In Year 3, the p value = .328.

Theoretical Foundation

The Ramp Up Literacy curriculum is actually based on the shared reading literacy theory. This theory has its foundation in Vygotsky's two-sided theories of instruction. The shared reading theory promotes teaching in ways that are informed by transaction. To explain further, this theory is one that says a relevant transaction must occur between the student and the text in order for learning to take place. This theory also promotes a teacher and student collaboration effort in the classroom. This means that the teacher and students work together to pull out textual meanings and in exploring thematic issues. This theory further promotes that literary meanings result from conversation (transaction) of reader and author (sometimes teacher) through the medium of text. This approach is common in workshops where the students are reluctant readers. This theory is the result of research by Rabionowitz , Smith, Rosenblatt, and Wilhelm (Wilhelm, 2006).

In justification of this study, the researcher discovered ideas similar to this research have been counted as noteworthy. Researcher Michael Hock (2003) assumes that the first step in literacy intervention for the older reader is to ascertain their places on the reading continuum. Hock outlines the five basic levels for the readers in general including: below basic, basic, proficient, and advanced. According to the Hock (2003) students can best be described in one of those five levels. These five levels were also used to describe the scoring system for the three schools involved in the Ramp Up Literacy intervention program.

Implications of Study

The research results of this study reveal a number of important findings about the effectiveness of the Ramp-Up Literacy Intervention Program on three Mississippi school districts. The researcher used the standardized effect size index d to measure the rate of change in student test scores. According to Salkind, Green, and Akey (2000) the effect size d indicates the impact of rate of growth in scores. Traditionally d values of .2, .5, and .8 represent small, medium, and large effect sizes respectively. The researcher also used t test to indicate if there was a significant difference in pre and post test scores. The t test is a much broader test and provides an analysis of all scores as an entire unit whereas the effect size d considers the amount of growth in individual scores.

In School A the first year showed only a small effect size index, which means that there was growth in student achievement during this first year, but that the growth was small. The much broader t test was also used to calculate significant difference, but this test showed no significant difference in scores. Based on the t test however, there is not enough of a difference in overall scores for year one to show that the intervention had any effect on School A. Use of the t test alone would not have provided the researcher any idea that some growth did exist. It is also important to point that the effect size does not measure the growth as significant but only as small, moderate, or large. In the second year of the literacy program School A experienced moderate growth in scores as measured by the effect size. This gives a clear indication that whether it was due to the intervention or not, learning was taking place at a higher level in the year at this school. School A's third year of the program again indicated a moderate growth rate in literacy skills from one test to the next.

In School B the first and second program years were marked by small rates of growth from pretest to posttest, but small growth remains an indication that something positive was taking place in the area of student learning. The third year for School B indicated a moderate to

high level of student learning. The effect size index was .63 in that year. This further indicates a tremendous leap in progress from year two to year three. The rate of growth the second year was only .35, and in the third year this number nearly doubled. A more in-depth study would be necessary to ascertain what the deciding factors were for growth as significant as this.

School C was the only school of the three schools represented in the study that showed no significant year in score difference as measured by t tests. This does not mean that the intervention program was a failure in School C. No significant difference in scores simply means that most students did not score higher on the post tests. When considering the effect size d measurements, School C did experience success albeit in small measures. In the first and second program years the index d did indicate small rates of growth. In the third program year however, there was a moderate rate of score growth for School C. The third year growth rate nearly doubled in comparison to the second year.

Without an in-depth qualitative study to further this research, it is difficult to ascertain direct links between program actions and student achievement. It also remains unclear without further study whether performance outcomes are a direct result of the intervention program or not.

Conclusion of the Study

The three schools examined in this study all experienced increase in some measure in scores. However, only School A in years two and three as well as School B in year three experienced a significant difference in mean test scores. School C experienced no significant difference in scores. Hence, for about one third of the time, a significant difference in reading achievement was produced across the three schools using the Ramp Up Literacy program. However, the “effect size” of the intervention (Table 11) indicated that the program had a small-to-moderate impact on the reading comprehension of all participants over each of the three years

of the MS Ramp Up Literacy Program. The researcher recommends more study and analysis to more accurately determine how much impact the Ramp Up Literacy program has on literacy improvement.

List of References

- Allen, K., Ingulsrud, J. (2005). Reading manga: patterns of personal literacies among adolescent. *Language & Education: An international Journal*, 19, 265-280.
- Atkinson, T., Wilhite, K., Frey L., (2002). Reading instruction for the struggling reader: implications for teachers of students with learning disabilities. *Preventing School Failure*, 46, 158-163.
- Black, S., (2005). Reaching the older reader. *American School Board Journal*, 192, 50-70.
- Carbonaro, W., Gamoran, A. (2002). The production of achievement inequality in high school English. *American Educational Research Journal*, 39, 801-827.
- Catone, W., Brady, S. (2005). The Inadequacy of Individual Educational Program Goals for High School Students with Word-level Reading Difficulties. *Annals of Dyslexia*, 55, 53-73.
- Conley, M., Hindman, K. (2004). No child left behind: what it means for U.S. adolescents and what can we do about it. *Journal of Adolescent & Adult Literacy*, 48, 42-50.
- Creswell, John W. (2003). *Research Design*. Sage: California.
- Diamond, B.J., Moore, M.A. (1990). *Multicultural Literacy: Mirroring the reality of the classroom*. Longman: New York.
- Doak, Cecilia (2006). Treatment of patients with literacy issues. *American Family Physician*, 74, 1628-1629.
- Dunston, P. J. (2007). Instructional practices, struggling readers, and a university-based reading clinic. *Journal of Adolescent and Adult Literacy*, 50, 328-336.
- Flowers, L. (2007). Recommendations for research to improve reading achievement for African American students. *Reading Research*, 42, 424-428.
- Gall M., Gall, Joyce, Borg, Walter (2007). *Educational Research: An Introduction*. Pearson. New Jersey.

- Gaskins, I. W., (2001). There's more to a reading problem than poor reading. *Journal of Learning Disabilities*, 17, 467-475.
- Henriquez, A. (2005). The evolution of adolescence an adolescent literacy program: a foundation's journey. *Reading Research Quarterly*, 40, 376-380.
- Hock, Michael F. & Deshler, Donald D. (2003). "No Child" Leaves behind teen reading proficiency. *Education Digest*, 69, 27-35.
- Knickerbocker, J., Rycik, J. (2006). Reexamining literacy study in middle grades: a critical response framework. *American Secondary Education*, 34, 43-56.
- Mahar, D. (2001). Positioning in a middle school culture: gender, race, social class, and power. *Journal of Adolescent and Adult Literacy*, 45, 200-210.
- Parris, S., Block, C. (2007). The expertise of adolescent literacy teachers. *Journal of Adolescent and Adult Literacy*, 50, 582-596.
- Salkind, Green, Akey (2000). *Using SPSS for Windows*. Prentice Hall, New Jersey.
- Santa, C. (2006). A vision for adolescent literacy: ours or theirs. *Journal of Adolescent & Adult Literacy*, 49, 466-476.
- Savage, R. (2001). The 'simple view' of reading: some evidence and possible implications. *Educational psychology in Practice*, 17, 17-33.
- Tatum, Alfred W. (2001). *Teaching reading to black adolescent males: closing the achievement gap*. Stenhouse, ME.
- Williams, B. (2007). Why Johnnie can never, ever read: the perpetual literacy crisis and student identity. *Journal of Adolescent and Adult Literacy*, 51, 178-182.

VITA

Education

Mississippi Department of Education Secondary Intervention Training Jackson, MS	July 2007
National Council of Teachers of Asia Asian Studies Teachers' Seminar University of Mississippi	May 2003 - November 2003
University of Mississippi M.A., Education Reading and Language Arts	August 1998 – August 2000
University of Mississippi B.A., Journalism (Minors) English, Political Science	August 1993 – May 1998

Teaching Experience

Adjunct Instructor Northwest MS Community College Senatobia, MS	January 2010 – August 2011
Long-Term Substitute Teacher Grade 8 English Oxford Middle School Oxford, MS	April 2009 – May 2009
Long-Term Substitute Teacher Grade 7 English Oxford Middle School Oxford, MS	January 2008 – March 2008

Oxford High School, Oxford, MS
Courses Taught:
English, Grades 9 and 10
World History, Grades 10 – 12
Reading and Writing Development, Grade 10

January 2002 – May 2007

Oxford Learning Center, Oxford, MS
Courses Taught:
English, Grades 7- 12
Social Studies, Grades 7 – 12
Math, Grades 7 – 8

August 2000- May 2002

University of Mississippi
Graduate Research and Teaching
School of Education
Department of Family and Consumer Science
Department of Curriculum and Instruction

August 1998 – May 2000