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## The effectiveness of reading programs for the intermediate remedial student

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THE EFFECTIVENESS OF READING PROGRAMS FOR THE  
INTERMEDIATE REMEDIAL STUDENT

by

Hope A. Walter

Bachelor of Science  
Kutztown University  
1996

A thesis submitted in partial fulfillment of the  
requirements for the

**Master of Science Degree in Educational Psychology  
Department of Educational Psychology  
College of Education**

**Graduate College  
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## **ABSTRACT**

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**Research on remedial reading programs has a controversial history. Although extensive research has been conducted on pull-out programs, far less research has evaluated remedial reading programs within the regular classroom. This study investigated whether using the basal or a new program, Project STARS, would produce reading gains in intermediate remedial readers. It was hypothesized that Project STARS subjects would show a greater academic gain in three areas. To evaluate this hypothesis, 46 students were assessed in August and December to determine the amount of growth for each student after instruction in either the Project STARS method or the basal text. Results indicated both groups had gain in all three measures. However, Project STARS students showed significantly ( $p < .001$ ) greater gains in reading comprehension. Although Project STARS appears to be an effective method for improving reading comprehension, further research will need to be conducted to determine any potential long term benefits.**

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## CHAPTER 1

### INTRODUCTION

One of the most essential tasks for any elementary child is to learn to read. There exists a continuing concern about the failure of some students to read to the expectations of the school (Allington & McGill-Franzen, 1989). A large portion of research in the area of reading often focuses on the difficulties that children have in learning to read and the pull-out programs designed to aid these struggling children. While many of these pull-out programs such as Early Intervention in Reading (EIR), Success for All, and tutoring have proven successful, the research also suggests that many of the other remediation techniques often prove to be largely ineffective (Wasik & Slavin, 1993; Kennedy, Birman, & Demaline, 1986). Although many remedial techniques have been studied, there has been less investigation into supplemental interventions within the classroom setting. Many of the studies that have considered reading within the regular classroom have examined the traditional basal text and its reliance on workbook pages, comprehension questions, and lack of appropriate levels of literature for the students (Samuels & Farstrup, 1992). While basal texts have been modified and improved throughout the years, there has been far less research into the benefits of the basal text for remedial students. There is also a lack of research in the area of providing supplemental reading instruction to the remedial students within a classroom setting.

While some pull-out programs have proven successful, the current educational trend (as seen in the elimination of the Reading Improvement Programs within the Clark County School District) is to work within the classroom to provide aid to underachieving students. The potential benefits of this have yet to be determined. However, a current supplemental reading program, Project STARS, has begun to be implemented in some intermediate classes throughout the Clark

County School District in effort to keep remedial reading students within their regular education classroom. Its focus is on teaching intermediate remedial reading students how to read and comprehend written material. While some research has been started on the benefits of employing Project STARS as a supplemental reading program, more research is needed to determine its benefits above and beyond the regular classroom reading instruction. In the study reported here, the benefits of the basal program for remedial intermediate students (within the regular education classroom) were investigated. The potential benefit of the reading program, Project STARS, on intermediate remedial reading students was also investigated. It was hypothesized that although the basal text would provide some reading gains to struggling intermediate readers, Project STARS, when used in conjunction with the traditional basal program would yield larger gains in reading comprehension, sight vocabulary, and spelling ability. In order to understand the necessity for this investigation, the previous research on the traditional basal program, pull-out programs, and components of the Project STARS program must be reviewed. A review of the Project STARS program has also been included to provide a greater understanding of the program that was used in this study.

## CHAPTER 2

### LITERATURE REVIEW

Children with learning disabilities, at-risk status, and/or poor reading ability are increasing in the mainstream education classroom. Many of the traditional pull-out programs designed to remediate these problems are costly, time consuming, and lack sufficient evidence of their ability to help these children. It has become increasingly important for the regular education teacher to supplement instruction to assist these failing children.

Children with reading difficulties, learning disabilities, and underachieving reading students are increasing within the regular classroom setting. "Recent figures from the U.S. Office of Special Education and Rehabilitation Services (1990) documented that since 1976, the number of children between the ages of six and twenty-one classified as learning disabled has more than doubled" (Allington & Walmsley, 1995, p. 116). In fact, more and more students, especially primary children, acquire a learning disability label (Allington & Walmsley, 1995). The impact of these figures on educators is significant. Teachers are faced with the challenge of providing reading instruction to all of their students, regardless of instructional level. For example, Austin and Morrison (1963) reported that 30 children in a fourth-grade classroom will have a reading grade equivalent range of 1.8 to 6.7. In light of the research, teachers must decide the most appropriate way to educate each child in his or her classroom and how to orchestrate that instruction.

Historically, the majority of educators believed that low achieving students should be removed from the regular classroom in order to teach them how to read. Allington and Walmsley (1995) reported on these inaccurate teacher beliefs about reading in the elementary school. These beliefs begin with the theory that not all children could achieve literacy (the ability to read)

with their peers. Educators often assume that at least one, if not several, of the students in their class, regardless of modifications, will not be able to learn to read and comprehend written material at their grade level. Allington and Walmsley (1995) also reported that children with reading difficulties need slower-paced lessons and that special education teachers and programs were the best way to help children with reading difficulties. Based on these beliefs, educators would recommend a pull-out program in order to provide reading remediation. Although some pull out programs are integrated and coordinated with the regular education classroom, the most common form of remediation involves a pull-out program that is taught by a special education teacher (Hoffman, 1986). Current research offers contrasting findings regarding pull-out programs.

Remediation programs generally fit into three categories: tutoring, small group, and whole class. Generally, tutoring is thought to be the most effective way of remediating reading problems (Aaron & Joshi, 1992). Tutoring, however, is time consuming, costly, and must involve one-on-one interaction with the remedial child (Aaron & Joshi, 1992). Although tutoring is highly beneficial, it is unlikely to occur within the regular classroom setting. Therefore, it is necessary to find alternative methods of remediation that are also effective. Although a discussion of alternative beneficial remediation programs is not provided in this article, a review of effective components within successful programs follows.

Research of competent special education teachers suggests that other effective pull-out reading programs often include: homogenous grouping of instruction of skills, instruction on the concept of print, alphabetic principle, letter sound associations, decoding skills, text elements, and comprehension strategies (Rankin-Erickson and Pressley, 2000). In addition, effective remedial programs are a result of the coordination of quality classroom instruction with the compensatory instruction (Pikulski, 1994). In other words, when the remedial program and the regular classroom program work together to meet the needs of the remedial student, the results are often more significant. Several other characteristics included in effective pull-out programs are: additional time for reading and reading related tasks, repeated readings of familiar text,

systematic instruction in word recognition, and regular assessment or evaluation of the student's progress, such as running records, reading inventories, or sight vocabulary tests. There has been considerable evidence that pull-out programs may be successful (Aaron & Joshi, 1992; Pikulski, 1994). However, there is also sufficient research criticizing pull-out programs (Allington & McGill-Franzen, 1989).

Recent findings indicate that not all pull-out/remedial programs are a beneficial alternative to aid low achieving students in the area of reading. Traditionally, children who were labeled learning disabled, special education, or at-risk were pulled out of the regular education classroom to receive additional instruction. If a child qualified as a special education student, the student would be labeled either mildly handicapped or learning disabled. The special education child would be pulled out of the regular classroom for part or all of the day and placed in a special classroom with a different curriculum from the regular education classroom. The child receiving compensatory education, or a "catch-up" program, should be receiving similar, quality instruction that they would have received in their regular education classroom. This, however, is not always the case. Often young children who are at risk of academic failure in reading are typically served in one of two intervention programs: compensatory education or special education (McGill-Franzen & Allington, 1990). Much of the available evidence suggests that many of the current compensatory programs are lacking (Hoffman, 1986). One problem with compensatory pull-out programs is that they often supplant a significant portion of the regular reading class (Hoffman, 1986). As a result, students in pull-out programs rarely receive a greater amount of reading instructional time. McGill-Franzen and Allington (1990) suggested that there is considerable overlap in both types of remediation and often both tend to have little similarity to the regular classroom curriculum. Segregation of remedial students and lack of coordination between remedial instruction and regular education instruction are cited as problems with some of the available pull-out programs (Hoffman, 1986).

One question that is now routinely asked is whether there exists evidence that specialized personnel enhance the quality of classroom instruction (Gambrell, Morrow, Newman, & Pressley,

1999). Although pull-out programs were originally intended to provide additional assistance for struggling readers, many times they did the exact opposite. Morris, Ervin, and Conrad (1996) suggested that if educators had been given adequate training in teaching reading (a crucial assumption), a learning disabilities teacher could make a positive difference. A study on disadvantaged/struggling second grade reading students found that special services did not appear to contribute to success in reading or to deviate from the regular curriculum enough to be considered an intervention (McGill-Franzen & Allington, 1990). In this study, the researchers found that instructional materials were often inappropriate in terms of difficulty level and that often the instruction was used as a substitute for regular instruction instead of as a supplement. They also found that children in specialized programs often spent more time doing seatwork and less time in active instruction than their regular education peers (McGill-Franzen & Allington, 1990).

Some claim that there is no proof that reading interventions will increase the amount of reading by poor readers or that their reading ability will improve (Shany & Biemiller, 1995). Participants in some reading programs received less reading instruction than nonparticipants (Allington & McGill-Franzen, 1990). Students in remedial instruction also spent twice as much time in non-academic activities as they spent on reading (McGill-Franzen & Allington, 1989).

On many occasions, at-risk students were excluded from classroom reading groups and received reading instruction only in the support program (McGill-Franzen & Allington, 1990). While time out of the regular classroom might be necessary for instruction, the critical question is how that time is used (Hoffman, 1986). Not only were the pull-out programs replacing regular classroom reading instruction, they were also minimizing the quantity of time spent reading. Some special education students received virtually no reading instruction (McGill-Franzen & Allington, 1990). Through research it was found that students in many special reading programs spend most of their remedial reading time doing seatwork. This often included completing dittoes of language arts materials, spelling worksheets, sight word programs, and skill related basal worksheets, such as comprehension or summary worksheets (McGill-Franzen & Allington, 1990).

Another problem with pull-out programs was the quality of the instruction that was received. The instruction offered was often less intensive, less active in teaching, and included more seat work than in the regular education classroom (McGill-Franzen & Allington, 1990). This is in concurrence with Shary and Biemiller's (1995) findings that poor readers spent much less time reading and read fewer pages than able readers in regular education. In effect, pull-out programs show wide variability in instructional tasks that have weak or nonexistent links to the regular education curriculum (McGill-Franzen & Allington, 1990). Overall, research shows that some traditional pull-out programs are costly, time consuming, and produce few results that could not be achieved in the regular classroom. In attempts to reform pull-out programs, the current trend tends to keep at-risk students in the regular classroom for most, if not all, of the day. This places the responsibility of educating the at-risk or learning disabled student back on the regular education teacher.

In summary, pull out programs continue to be a controversial topic. While some pull out programs have been found to provide lasting benefits to struggling students, others result in little to no academic growth. Pull-out programs need to be evaluated on a case by case basis to determine their instruction benefit.

Current research does suggest that children benefit from access to increased exposure to higher-quality instruction that includes: active teaching, contextual reading, instructional effectiveness, and selection of appropriate materials and tasks (Allington & McGill-Franzen, 1989). The features that appear to be essential for successful remediation in reading were focused, direct, and appropriate instruction (Samuels & Farstrup, 1992). Children with reading difficulty need larger amounts of guided reading opportunity in order to learn reading strategies (Gambrell et al., 1999). Most will need a supply of books at appropriate levels—typically levels different from the books used in the daily classroom. A summary of effective remedial practices is presented in Table 1. In other words, what is happening during instruction is more important than where it is happening (Hoffman, 1986).



The remaining sections will look at two intermediate level reading programs: the traditional approach of the basal reader and a new program entitled project STARS. They will be defined, compared, and discussed as potential programs for these struggling readers.

### Project STARS

An attempt to provide a multimethod, multileveled, challenging reading program to intermediate children who are poor readers is the mission of Project STARS. Project STARS was developed to help intermediate children (grades three to five) who are struggling with reading. Using New Zealand's Reading Recovery program as a framework, Project STARS employs similar components to provide at-risk students with the skills and strategies they need to become proficient readers (Project STARS manual, 1997). The New Zealand studies on Reading indicated that regardless of gender, economic status, or sociolinguistic group, the lowest-achieving children make accelerated progress in the Reading Recovery program (Lyons, Pinnell, & DeFord, 1993). However, the Reading Recovery program also has its share of conflicting results.

Reading Recovery is considered a preventive tutoring program that uses trained teachers to work one-on-one with the lowest 20 percent of their class (Wasik & Slavin, 1993). When the student reaches a level of performance equal to that of the middle reading group of their peers, they are removed from the program. Otherwise, the student continues to be tutored for 30 minutes a day. DeFord, Pinnell, Lyons and Young (1988) conducted a study in which students were assigned to either a Reading Recovery group or a control group. The results indicated first grade students assigned to the Reading Recovery group made greater gains in word tests, concepts of print, writing vocabulary, dictation, and text reading. The control group scored better on letter recognition. In a two year follow-up on the students, however, the effect size had diminished each year after the study for both groups, although the Reading Recovery's effect was still slightly higher (DeFord et al., 1988). In addition, they found that student grade retention rates had dropped, but by the third grade the retention results of the Reading Recovery subjects

was nearly equal to the control group subjects. The benefits of the Reading Recovery program decreased over time to the extent that the two groups were almost equal (in terms of retention rates) by the end of the third grade.

Reading Recovery has been criticized for having a policy of not serving already retained students and not providing any connection to classroom instruction (Wasik & Slavin, 1993). Traditionally, if a child had been retained in a grade previously, that student would not be eligible to participate in the Reading Recovery program. The selectiveness of students for the Reading Recovery program has lead to speculation about the validity of some of the Reading Recovery research (Wasik & Slavin, 1993). Although there are discrepancies in the long term benefits of Reading Recovery, its key components have been utilized and replicated in many other effective programs (Allington & Walmsley, 1995: Wasik & Slavin, 1993).

Project STARS has the same four major components as Reading Recovery. Instruction each day requires a thirty minute block of uninterrupted time, using those four key components. As listed in Table 2, the four components of a STARS lesson include: 1) rereading of a familiar text, 2) direct instruction on word patterns/phonics instruction, 3) guided reading, and 4) independent reading with a written assignment. STARS is intended to be used with a small group of at-risk, academically low, or learning disabled readers. Instruction should be individualized or consist of a maximum of five students in a group (Pikulski, 1994).

The first part of STARS is the rereading of familiar text. Repeated readings allow the student to build vocabulary and be familiar with context. The use of repeated readings are supplemental in that they should be used as a part of a developmental reading program, not as the only aspect of reading instruction. The purpose of repeated readings is to build fluency and enhance comprehension (Samuels, 1979). Rereadings are particularly suitable for students with special learning disabilities (Samuels, 1979). Repeated exposure to familiar words and material should help the student develop a greater sight vocabulary, build vocabulary, and become familiar with context (Shany & Biemiller, 1995). Rereadings may also increase the automaticity of the student's reading. Automaticity of word recognition increases student's reading fluency and

allows for a greater opportunity to gain meaning from the text (Strecker, Roser, & Martinez, 1998). There is a strong relationship between comprehension and fluency (Strecker et al., 1998). Poor readers read slowly, producing a single word at a time, which severely limits their overall understanding of the passage (Hasbrouck, Ihnot, & Rogers, 1999). In addition, poor readers will often ignore punctuation so that phrases and sentences become meaningless (Hasbrouck et al., 1999). As a result, reading for meaning is greatly hindered for a student when word recognition is so difficult (Stanovich, 1998). Therefore, exposure to familiar text and words is one of the benefits of the rereading activity. Samuels and Farstrup (1992) added that repeated reading has been used successfully with mentally handicapped children. Although it is a useful technique for non-automated decoders, it is not recommended for students who are already reading fluently (Samuels & Farstrup, 1992).

Repeated readings are the most universally used remedial reading technique to help poor readers improve reading skills (Samuels, 1979). Its effectiveness is two-fold. First, it allows the child to feel comfortable reading due to the familiarity of the words. Secondly, the rereading of text provides immediate, positive feedback regarding that child's progress. Repeated readings also allow words to be transformed into sight vocabulary for the child. There is considerable evidence that the use of repeated readings increases both rate and accuracy of the reading and, subsequently, leads to fewer rereadings in future sessions (Strecker, Roser, & Martinez, 1998).

As a part of the STARS approach, children are timed during rereadings in order to determine if fluency has increased. Timing students while rereading familiar text may result in increased fluency for slow readers (Chomsky, 1978). The rereading assessment of the student's progress and fluency should occur frequently. Before a timed rereading, the student will practice the familiar text several times. The goal of repeated readings is to increase the child's fluency and confidence. The student reads the passage aloud while being timed and the results are recorded. This allows the child to see the progress he/she is making in fluency. The teacher should record the student as he/she is rereading. The recordings, or running records, can be used to analyze the student's reading problems. Omissions, insertions, mispronunciations, and

self-corrections are noted by the teacher (Barr, Sadow, & Blachowicz, 1990). The student's mistakes can then be analyzed to determine a child's most prevalent reading problems. Listening to the student read may also allow the teacher to detect other problems the student is having and identify the word identification skills problematic for the child (Barr & Johnson, 1991). Teachers should provide assistance on difficult words that may hinder the child's fluency (Morris, 1986). The teacher may choose to discuss the errors with the child after the reading to assist the child in learning the mistakes he/she commonly makes. The type and number of miscues that a reader experiences or corrects provides insight into their ability to integrate context and print information (Barr, Sadow, & Blachowicz, 1990). Once the student reads the text in under a minute, the student has passed that text and begins another familiar rereading.

Many remedial reading programs include repeated readings such as Reading Recovery, Reading Naturally, Success for All, The Winston-Salem Project, and Early Intervention in Reading (EIR) (Hasbrouck et al., 1999; Pikulski, 1994). Repeated readings should be familiar text that students feel confident and comfortable reading. Frequent assessment through the use of running records can be used to show growth, find areas of weakness, and help students to feel successful through their recorded growth.

The second part of Project STARS is the word study. The word study portion is based largely on the influence of Words Their Way, a program in which students explore words and patterns within words ("Project STARS" manual). In a word study, which lasts approximately 10-12 minutes, words are looked at in isolation (Morris, 1982). Students examine orthographic or spelling patterns in the words (Morris, 1982). Students are encouraged to explore words, find similarities, and make connections with words through guided instruction. This portion of the STARS lesson is important because poor word recognition hinders higher level processing because few cognitive resources are left for comprehension after struggling to recognize words (Stanovich, 1998). There is substantial experimental evidence that suggests that unless word recognition has become automatic, it will continue to be an attention-demanding process and, subsequently, interfere with comprehension (Aaron & Joshi, 1992). By working daily on word

recognition, students should gain increased word recognition and decoding abilities, allowing the child to focus on reading for meaning.

A word study is an instructional process, not an instructional program (Morris, 1982). It allows the student to compare and contrast words and discover the orthographic properties of words. Instructional emphasis should be placed on exploration of patterns that can be detected in the sound, structure, and meaning features of words (Templeton & Morris, 1999). Word studies contain both code oriented and whole word/meaning based approaches to word identification (Stanovich, 1988). In code oriented approaches, students focus on patterns that occur within words. When students work with whole word or meaning based approaches, the words are often found within the text, discussed, and defined to assist the student in both sight vocabulary and fluency in reading. Use of both techniques results in greater levels of success for many readers (Stanovich, 1988). In addition, children who are taught to read with phonic/linguistic instruction develop greater understanding of word elements (Barr, Sadow, & Blachowicz, 1990). They also contend that word recognition is strongly related to speed of initial reading acquisition, increased comprehension abilities, and, therefore, a certain amount of training is necessary. In order for students to internalize many of the foundational spelling patterns, teacher guidance and instruction is necessary (Templeton & Morris, 1999).

When a child participates in a word study the student is either given or asked to make a set of word cards. The cards are then given to the child and he/she is asked to sort them any way the student chooses. Specific guidelines or instructions are not given to the child at this time. After the cards have been sorted by the child, the child is asked to describe how the words were sorted. On subsequent days, the student may work with the same words again, however he/she may be asked to sort the words by spelling patterns, vowel sounds, prefixes, initial consonants, and so forth.

For the word study, the teacher selects well known, one-syllable words that can be categorized in two to four categories. In addition, the child pronounces each word while sorting. It is essential that words used in the word study are at the appropriate developmental level,

regardless of the age or grade of the student (Templeton & Morris, 1999). This is done by establishing the appropriate instructional level prior to beginning the word studies (Templeton and Morris, 1999).

Four instructional levels of phonetic ability have been identified. The first level is called emergent. Here students would work on initial and ending sounds of letters and words. The second level is called the letter name or alphabetic group. These students would focus their word studies on short vowel sounds, blends, and digraphs. The third level is called within word. These students work on long vowel and other vowel patterns. The fourth level is called syllables and affixes or syllable juncture. This level relates to prefixes, suffixes, and eventually root and base words. A child in the within word level would, for example, work on long vowel patterns. For example, the teacher might choose the following words for the student to sort:

hole boat snow pole goat blow toe Joe slow joke

First, the child would sort the words in any way he or she wanted. This is referred to as an open sort. The open sort allows the child to explore the words without teacher guidance and provides the teacher an opportunity to see how the student is thinking about the words as a whole. The teacher and child would then discuss how the words were sorted and why. On a different day, the student might be asked to do a closed sort. A closed sort is generally not done until after an open sort has been completed. In a closed sort, the teacher directs the student to sort the words based on a certain pattern. With the words listed above, the child would be guided to find the patterns of the words containing a long "o" sound. The child would pronounce each word and then sort it into the appropriate group with assistance, if necessary. Eventually, the child would sort these words into the following categories: words with "oe", words with a CVCe pattern (consonant, vowel, consonant, silent e), words with "oa", and words with "ow". The child would learn through sorting activities like these, that the long "o" sound is seen in different letter patterns. Word study activities involve students in comparing, contrasting, and classifying words (Templeton & Morrison, 1999).

The third component of STARS is the guided reading of text with direct instruction on how to comprehend (Project STARS, 1997). The most critical element of the third component is the level of the reading material. It is essential that the selected text is at an appropriate instructional level for the student (Morris, Ervin, & Conrad, 1996). The instructional level is defined as being higher than the student's independent level. At the instructional level, students should be able to be able to read roughly 95% of the words in the text. A student's independent level is defined as the level at which the child can read without help (Samuels & Farstrup, 1992). Faster progress may be achieved by initially having students read large numbers of books at their instructional level (Lyons, Pinnell, and DeFord, 1993). This allows the child initial success instead of continuous failure from reading books that are entirely too difficult for the child. In other words, texts for children at-risk should be very simple so that students will be successful in reading them (Pikulski, 1994).

Once the instructional level has been determined, reading material of personal high interest and significance to the student should be selected (Morris et al., 1996). High interest stories will provide students with the incentive to read. Teachers must be careful to select reading materials that are interesting, but that do not overshadow the important concepts in the text. Although high interest books are another area of controversy, low achieving students who are interested and engaged in the book they are reading will be more likely to be successful (Aaron & Joshi, 1992). Children will persist in reading activities only when they are interested in what they read (Aaron & Joshi, 1992). Intervention methods that do not arouse the interest of the reader are more likely to result in failure (Aaron & Joshi, 1992). After appropriate reading material has been selected, guided reading can begin.

The New Zealand Department of Education defined guided reading as a program where teachers, working with a small group of students with similar reading abilities, introduces the text, works briefly with the group as they read the material, selects one or two teaching points to present, and asks the children to take part in an extension of their reading (Fountas & Pinnell, 1996). The goal in guided reading is to help children learn how to use independent reading

strategies successfully. Considerable teacher guidance is necessary to get students to read appropriate material (Samuels & Farstrup, 1992). For example, many children are often inclined to select the Harry Potter series even though it is too difficult for them to read. This is why teacher guidance is essential in text selection. Through guided reading teachers model how to read for meaning. This encourages children to read for meaning at all times and provides teacher support as they read. Other essential components of guided reading include: each child reading the entire text, the introduction of increasingly challenging texts, and a continuous process of assessing and reassessing to place children in the appropriate reading group. The purpose for guided reading, then, is to help the students become independent readers.

Within the guided reading time, teachers are to model comprehension/thinking strategies in order to show poor readers how to think through mental processes. Many strategies are taught to Project STARS teachers during the sixteen weeks of STARS training. It is at the teacher's discretion, however, to decide which strategies to use with each group of students. A review of some of the strategies used in Project STARS follows.

One strategy taught in Project STARS is Stauffer's Direct Reading Thinking Activity (DRTA model). In DRTA, teachers activate prior knowledge and discuss the title and cover of the book. Students pose possible questions or predictions and then a small part of the book is assigned for the students to read (usually a page or two). After the students silently read the passage that was assigned, the group of students discuss the selection, confirm or alter predictions, answer questions, and pose new questions. This process is repeated for every couple of pages to ensure comprehension by all students.

Another strategy, QAR (Question and Answer Relationship), is a process of asking different types of questions and answering those questions based on the text. QAR is a method designed to enhance a student's ability to answer comprehension questions. In QAR, students receive feedback on their ability to identify questions with a text, locate responses to questions asked, and provide accurate responses to those questions (Rafael, 1982). For example, a teacher may ask a child a question based on the text. The child upon answering the question would then be



asked how they knew that answer. From this dialogue the teacher would introduce the three types of questions represented in QAR; think and search questions (which require the student to find the answer in the text), right there questions (answers are found directly in the text), and on my own (where students learn to deduce information from previous experience and information from the text). Both DRTA and QAR have been found to be effective instructional strategies (Honig, 2001).

GIST (Generating Interactions Between Schemata and Text) is another strategy used in Project STARS. This strategy guides students' writing for the purpose of improving their understanding of the text (Project STARS manual, 1997). Through GIST, students create short summaries, sentence by sentence, in less than fifteen words. The strategy teaches students to use only the most essential information from the text (Project STARS manual, 1997).

Reciprocal teaching, a technique to improve comprehension of expository text, is another strategy used by STARS teachers. In reciprocal teaching, discussions are lead, by both teacher and student, focusing on specific sections of a text. A typical lesson using reciprocal teaching would begin by having the teacher select a text from a content area. The teacher would explain to the students that their goals would be to generate questions, summarize text information, clarify difficult sections, and predict the following sections of the text. Afterward, both the teacher and students would silently read the section. The students would then construct questions, summaries of the text with a main idea and supporting details, ask questions about difficult concepts, and make predictions. Once this process has been modeled several times, the students assume the role of teacher by leading the discussions (Project STARS manual, 1997).

Request is another strategy used in some Project STARS lessons. The goal of request is to assist students in developing questions and a purpose for reading (Project STARS manual, 1997). Six steps are involved in request. First, the students engage in prereading preparations, such as predicting and vocabulary identification. Next, background information is provided, and students begin to silently read the selection. After reading, the students have a questioning session. The questioning section allows the students to ask questions of the teacher about the

reading selection, and the teacher is the one who needs to remember the answers. Then the students make new predictions or confirm their previous predictions and continue the process again (Manzo, 1985).

In guided reading, the teacher would need to vocalize his/her thought process in order to teach students how to think about and respond to the text. This allows interaction between teacher and student. A teacher's ability to formulate good questions is crucial to the development of the student's comprehension (Barr, Sadow, & Blachowicz, 1990). One of the primary purposes of the story-reading event is the construction of meaning through the child-teacher interaction (Walmsley & Allington, 1995). The goal of guided reading activities is to encourage students to think about their thinking, as well as to model self-monitoring techniques such as rereading, reading on, adjusting reading speed, and checking for understanding after reading (Honig, 2001). After the guided reading portion is completed, the final STARS component is assigned to the student.

The last part of the STARS program is the student's responsibility in that it is an independent assignment or activity. After the thirty minute lesson, the student is given an assignment by the teacher, usually an independent reading assignment. It could be a rereading of the text that was just discussed, a continuation of a chapter or small book, or another reading selection. After the reading, the student is asked to respond in writing, usually through a reading journal, to the independent reading that he or she has just completed. The goal of the written response is to increase students reading comprehension and transfer the child's reading experience into written word. There is a general consensus in the research community that the process of writing words and the process of reading words draw upon the same underlying knowledge (Templeton & Morris, 1999). Connecting the two disciplines can be accomplished through the writing experiences and dialogue about the text.

To summarize, Project STARS is a four part process that involves the rereading of familiar text, instruction in a word study process, guided reading with a small group and the teacher, and an independent activity that focuses on both reading and writing. The basis for the Project

STARS model has been from adaptation of previously successful reading strategies and techniques.

### **Basal Readers**

Basal reading programs have had a long and controversial history. Basal readers can be traced back to the early years of our country with the use of the New England Primer (Reutzel & Cooter, 1992). Through the years, the basal has been transformed from the traditional "Dick and Jane" readers with an emphasis on controlled vocabulary to the literature rich anthologies that appear in classrooms across America today. Therefore, the term basal needs some clarification. Basals are a comprehensive, integrated, commercially prepared and sequenced set of materials providing developmental reading instruction through the use of student text books, workbooks, supplemental exercises, enrichment activities, and teacher manuals (Reutzel & Cooter, 1992). Although basal reading programs are used in more than 90 percent of U.S. classrooms (Samuels & Farstrup, 1992), it is interesting to note that only five publishers account for nearly 80 percent of the total sales of basal texts books (Aaron & Joshi, 1992). They contend that basal readers are used by more than 95 percent of the schools for teaching reading to young elementary children. Basal reading programs are considered the mainstay of many elementary reading programs across the nation (Barr & Johnson, 1991). Many teachers believe that the basal reader is indispensable to reading instruction (Goodman, Shannon, Freeman, & Murphy, 1987). Due to the basal's overwhelming popularity, a thorough discussion of its components, as well as its benefits and limitations is necessary.

The basal reader program, in itself, is not a bad program. The basal's main strength is in the tight organization and rigor of the program (Goodman et al., 1987). Many of the major basal publishing companies have programs that represent a radical departure from traditional basals (Hoffman, 1998). The majority of the commonly used basals employ a similar organization.

Most of the basals continue to follow the Directed Reading Activity (DRA) that was first developed by Betts back in 1946 (Reutzel & Cooter, 1992). This format has several distinct

components. The major components of many of the basal reading programs are listed in Table 3. The basal components include: 1) reading preparation, in which the teacher activates prior knowledge of the subject matter and defines unfamiliar vocabulary, 2) guided reading of the text which should include a comprehension discussion, 3) comprehension skills training, usually involving a worksheet or assignment, and 4) an enrichment activity connected to the text's subject matter.

During the introduction of the lesson, or the prereading section, a purpose for reading is discussed, as well as an introduction to potentially unfamiliar vocabulary. This can be done through various methods including: direct teaching of the new vocabulary, a worksheet, or a class discussion of the words. Although traditional basals used controlled vocabulary as a major sequencing agent, the newer stories are often authentic literature. Therefore, unfamiliar or difficult words are provided at the beginning of every story in each basal so teachers and students can identify which words are to be learned.

Following the preparation, the students perform guided silent reading to answer questions or take part in oral reading. This is the main reading instruction component of the basal lesson. Reading is a complex skill made up of certain identifiable components: the ability to pronounce the written word and the ability to comprehend the words and text (Aaron & Joshi, 1992). Reading instruction in the first two grades of elementary school should focus on word recognition skills, whereas after second grade and into junior high the focus should be on text comprehension and literature appreciation (Aaron & Joshi, 1992). In the intermediate grades, basal instruction is meant to refine and advance student's abilities to use their skills with more complex text (Barr & Johnson, 1991). Comprehension is the focus of many of the intermediate basal texts. However, there are suggestions provided in the teacher's guide for phonics instruction, decoding skills, and grammar lessons. Due to the heavy emphasis on comprehension in the intermediate basal textbooks, the focus of this paper will be on the comprehension aspect of the basal.

Comprehension is an active process where the reader not only translates what is heard or read, but it involves construction of a body of information, making inferences, and building on that information above and beyond the words presented on the page (Aaron & Joshi, 1992). The factors that facilitate comprehension are vocabulary, reader's schemata, and metacognitive processes (Aaron & Joshi, 1992). Most of the teaching of comprehension in the basal is through the use of questions before, during, and after the reading of the stories (Goodman et al., 1987). The questions are usually posed by the teacher and they relate to whether the children understood the story. Questions are used throughout the reading of the text and they are usually designed to fit the skills appropriate for that level reader (Goodman et al., 1987).

After completing the reading, the third step of the basal program begins. Here, students engage in some form of word analysis and/or comprehension skill, usually in the form of a workbook activity. For each page of the stories, there are almost as many comprehension check-up questions (Goodman et al., 1987). Concepts ranging from cause and effect and story elements to mood and author's point of view are covered in the student's workbook. Not all workbook exercises are beneficial, however, and the key is to be selective (Barr & Johnson, 1991).

The fourth and final stage usually consists of an enrichment activity (Austin & Morrison, 1963). The enrichment activity can either be an extension of the subject that was addressed in the story or it can be a connection to another discipline (e.g., math, science, art) that pertains to the story. The enrichment activity usually occurs at the end as a culminating activity. It can also take the form of a worksheet or workbook activity designed to extend the lesson. Skills such as diagrams, maps, and chart reading are some of the worksheet designed materials that are used for enrichment activities to be completed either individually or as a class.

Currently basal textbooks are used in many elementary classrooms across the nation. Basals have changed considerably throughout the years, but many are still based on the DRA model posed by Bett. The components of a basal lesson often include a prereading introduction that includes a vocabulary review and a purpose for reading, a guided reading lesson with an

intermediate focus on comprehension, a comprehension activity that is to be performed or completed by the student, and a culminating or enrichment activity. Basals, like many other aspects of reading instruction, have both benefits and limitations that need to be addressed.

Basal reading programs are comprehensive and provide systematic and sequential instruction from kindergarten to eighth grade (Barr & Johnson, 1991). Any reading program must include opportunities for students to read a variety of texts and discuss the ideas presented (Barr & Johnson, 1991). The basals of today contain a wide variety of all types of literature. Children are exposed to many genres and topics they might miss if all their reading was self-selected (Walmsley & Allington, 1995). The basal provides an important source of support and serves as a foundation for reading instruction (Barr & Johnson, 1991). The basal program is developed by scholars through educational publishers and they include all the necessary materials for reading instruction (Barr & Johnson, 1991). Basals outline the major goals for each year and provide organized curricular plans for accomplishing those goals (Walmsley & Allington, 1995). The books are in a series that provides an organized, systematic program which emphasizes the development of understanding vocabulary, study skills, and other reading processes. The intermediate level basal readers also provide some phonics instruction, structural analysis, and dictionary skills. The basal reader is a sequential, all-inclusive set of instructional materials that can teach all children to read regardless of teacher competence and learner differences (Goodman et al., 1987).

The basal program, however, also has several limitations. Basal readers are sometimes criticized for being too skill-development oriented and lacking literary quality (Aaron & Joshi, 1992). Other objections to the basal include: the slowing down of instructional skills when the material is too difficult, excessive use of worksheets, and a series that shows an obvious lack of confidence in the teacher's ability to teach. Some believed practicing teachers were capable but undertrained and, therefore, taught the way they had been taught (Hoffman, 1998).

Critics also note the use of whole group instruction with basal readers. Assignment to whole class instruction means that only some of the students will have appropriate reading materials

(Honig, 2001). In other words, only students reading at the level of the basal or higher will benefit (Reutzel & Cooter, 1992). The basal's major strength may also be its major weakness in that the essential elements of the organization and sequence do not easily permit modification (Goodman et al., 1987). In an attempt to allow for modifications, some basal series have begun to add extra reading material to be used with groups of children based on ability. Unfortunately, not all teachers have access to these supplemental materials and those who do may not take the time to use them in their program (Goodman et al., 1987). The use of one book for all students is not only impractical, it may also be harmful to children who are reading below the designated reading level. For example, low-achieving child may not be able to read the text and, therefore, will not be receiving reading instruction. In addition, it may discourage the child from attempting to read due to lack of confidence in his/her abilities. Furthermore, it will require that child to depend on either the teacher or another child in order to complete the designated task.

Basals have also been criticized for their lack of teacher resources. Teacher's manuals do not teach how to teach reading comprehension (Reutzel & Cooter, 1992). In addition, the basal often provides ample amounts of reading comprehension activities, but offers little instructional support on how to teach comprehension (Reutzel & Cooter, 1992). Another criticism is that teacher's editions of basal textbooks pay little attention to student's fluency (Stanovich, 1998). Schumm, Vaughn, Haager, and Klingner (1994) conducted a survey in which they found that teachers were disinclined to use teacher edition basal textbooks for supplemental materials for mainstreamed students, even though they found the struggle to teach remedial readers skills and comprehension as one of their greatest challenges (Baumann et al., 2000). The remedial or poor-reading student is often helped to read the too-difficult material by slowing the instruction, often spending a week on one story, accompanied by numerous skill-practice sheets (Lyons, Pinnell, & DeFord, 1993). Children who are seen as less successful will get less exposure to meaningful literature and more drill and practice materials with reduced language or non-texts (Goodman et al., 1987). Those children, in return, are likely to be discouraged from attempting to read real books. Schumm et al. (1994) investigated six widely used basal programs to determine

their suggestions for mainstreamed students in the area of reading and found only two basal reading programs provided any suggestions directed at mainstreamed students. Schumm et al. (1994) concluded from their study that very few suggestions are provided by current basal teachers' manuals to assist teachers in planning and implementing literacy instruction for mainstreamed students.

The use of the basal in the elementary classroom has both benefits and limitations. While the basal provides a comprehensive, sequential reading approach, it offers limited resources for struggling students. Barr and Johnson (1991) have made some recommendations for using a basal series effectively. They suggest carefully choosing the selections to read and the strategies and activities to use. In addition, they suggest supplementing basal selections with other materials, minimizing the isolated reading skill instructional time, and incorporating additional activities and strategies when necessary. Although these suggestions will not stop the controversy surrounding the use of basal readers, it may help teachers to decide the best way to use the basal.

Two currently used reading programs have been discussed. The basal program that follows the DRA model, while widely popular in the U.S., does not seem to adequately meet the needs of all of the students. Project STARS, which employs aspects of Reading Recovery and Words their Way, has been developed in answer to a growing demand for beneficial, remedial instruction at the intermediate level, that the regular classroom teacher can employ. The following research project will compare these two reading programs. The goal is to discover which program, if either, is more beneficial for these at-risk students.



## CHAPTER 3

### METHOD

This study focused on two groups of third grade Clark County School District students. The first group received reading instruction taught through a traditional McMillian-McGraw basal program. The second group was taught using the Project STARS approach exclusively. Although Project STARS was intended to be used as a supplemental reading program, participants in this study used the STARS method as their primary reading program. Each group was pretested using three assessments to determine their current level of ability in three distinct areas of reading. The Qualitative Spelling Inventory (QSI) evaluated their spelling ability/phonological awareness, the Flynt-Cooter assessed their current instructional level in reading comprehension, and the Slosson indicated their sight word knowledge. These three tests were given four months later to determine the amount of growth after instruction, if any, in each of the designated areas. It was hypothesized that both groups would perform better on their individual posttest than they did on their pretest for all three tests. It was also hypothesized that after the four months of reading instruction, students receiving reading instruction through Project STARS would: 1) perform higher on the Flynt-Cooter Reading Inventory than the students taught using the basal text, 2) perform better on the posttest for the QSI than the basal subjects, and 3) perform better on the Slosson word list than the basal subject.

### Participants

The sample consisted of 46 third grade students in the Clark County School District. All participants had an informed consent form signed by his/her parents, and each child signed a child assent form. Twenty-four students were educated using the Project STARS method.

The teachers who taught Project STARS had previously attended a sixteen week course in Project Stars to be qualified to teach STARS. The other 22 subjects were taught using the approved basal textbook and accompanying materials from the basal series, but were not instructed using the Project STARS method. The STARS participants used the Project STARS method to instruct their students.

### **Setting**

Each subject was educated in a third grade classroom in one of the schools within the Clark County School District. The third grade classrooms were a class size reduction classroom containing only one teacher and no more than 24 children.

### **Materials**

The 46 subjects were given a series of three tests at the beginning of the school year to determine their instructional reading level. The three tests were the Flynt-Cooter Reading Inventory, the Slosson Word Test, which tests for word recognition, and the Qualitative Spelling Inventory, which determines orthographic development or the student's understanding of written language/spelling.

#### ***Flynt-Cooter Reading Inventory***

The first part of the reading inventory was a quick initial passage assessment. There are a series of nine levels with three sentences written under each level. This initial assessment determined what level to begin assessing each child. For example, the first level had the following three sentences:

1. He wanted to fly.
2. The family got together.
3. The boy was jumping.

If a child couldn't read these three sentences, or makes if he/she made more than two mistakes in the reading of the three sentences, then the teacher knew that the child was not at level one

reading ability. The teacher then began assessing the child's reading level at a PP or pre-primer level. However, if the child could read the three lines under level one, the child would have continued and attempted to read the sentences under level two. Once the child made more than two errors, the initial assessment was stopped, and the teacher began to use the narrative passages to determine the child's reading ability.

If the child made two reading errors in level three, then that child was asked to read a level two narrative passage. The child was always started at a level that was successful for them in the initial passage reading. Next, the child was asked to read a passage silently with the knowledge that they would be asked questions about the story after he/she had finished reading. After the child finished reading the narrative passage, the child was asked to tell what they recall from the passage. Once the child had finished a series of predetermined questions, which were written on a specific Flynt-Cooter Independent Reading Inventory (IRI) form, were asked. When the child had answered all the questions, the teacher asked the student to read the selection aloud. The teacher recorded the reading miscues of that child during the oral reading on an assessment protocol form. After the oral reading, the teacher determined if the passage was too difficult or too easy for the child. The final aspect was an oral reading of the passage by the teacher. This assessed the student's listening comprehension.

Once the Flynt-Cooter had been administered, the teacher had an independent reading level, an instructional reading level, a listening comprehension reading level, and a reading level that was too difficult for the child. This test was the main determining factor as to which students would be participating in the research. Students who were reading below their current third grade level were selected as the subjects for this study.

#### *Qualitative Spelling Inventory*

The QSI was given to a group of individuals. The QSI is a series of 25 predetermined spelling words. The children attempted to spell each word to the best of their ability. The words were broken into a set of five. For example, the first five words were:

1. bed
2. ship
3. drive
4. bump
5. when

Teachers scan the students' papers to determine if they child should continue the spelling inventory. If a child had missed several words in a set, usually three in a block of five, then the child should be allowed to stop the test. This test determined the student's spelling ability. The child will be determined to be in one of four categories based on the QSI test scores: 1) letter name, 2) within word, 3) syllable juncture, or 4) derivational constancy stage. This determined their spelling ability upon entering the third grade. If they were in the letter name stage, they worked with initial and ending sounds, blends, digraphs, and short vowel sounds. The within word children learned the differences between long and short vowels, and patterns within words, such as CVVC or CVCe words. Syllable juncture spellers were not subjects of this study, however, they would have been working with prefixes, suffixes, and stresses and accents on two-syllable words. Although none of the subjects were in the last stage of the QSI, the derivational relations group would work with roots and bases in words.

#### *Slosson Sight Word Assessment*

The Slosson is a series of lists of words that gets progressively more challenging. There are a total of twelve lists of words, with twenty words in each list. The child was asked to read the first list. If the child missed less than ten of the words, he/she was asked to continue onto the next list. The child continued to read the lists until he/she missed ten or more words. Teachers were provided with step-by-step instructions on how to administer the Slosson assessment to ensure continuity in administration of the test. The teacher added up the number of correct responses. A chart was provided with the test that identified the child's current reading level based on the number of words read correctly. All children participating in this study had a current reading level of less than third grade based on the Slosson word list assessment.

### *Project STARS*

The two groups used materials selected for the program in which they were teaching. The Project STARS subjects had a weekly set of word cards for the word study section of STARS. Often this was used as their weekly spelling list, instead of the regular classroom spelling list. The number of cards each child had were between 10 and 25. The cards focused on a phonetic skill that the subjects for that group needed to learn. For example, a group of STARS students may have had word cards that had the following words:

house cow down hour shout crown town mouse bounce amount

The children used cards for a week or two until the concept was mastered by the subjects.

The students instructed through Project STARS also had authentic literature to read during each STARS lesson. The literature depended on student ability, readability of the book, and interest of the subjects. The Rigby series books, chapter books, story books, or even a basal text could have been selected as the literature for the STARS lesson. Usually, the books were based on availability of several copies of a text and text reading level. For example, a group of third grade students may have read Frog and Toad Are Friends or Clifford the Big Red Dog, depending on their reading ability.

These books were also used during the speed reading and rereading portions of the lesson.

The subjects were required to keep a reading response journal. In this journal, the subjects responded in writing to the reading selection that they had just finished reading. These were the materials that were necessary for the subjects to participate in the STARS program. The teacher, however, had access to the Project STARS manual.

The manual was given to all teachers who participated in the sixteen week training on the instruction of Project STARS. The manual provided charts and worksheets to help assess and record student performance, progress, and problems. It contained forms to perform running records to help assess the specific reading difficulty of each child. It also contained graphic organizers to be used by the student. The graphic organizers were used as a summative assessment to determine the student's level of comprehension or as a tool to help the teacher

explain a concept in the story. The manual also contained different strategies to help the teacher teach a concept or reading strategy to the child.

### *Basal Readers*

All subjects had an approved copy of the basal reader. The basal reader contained several selections of authentic literature that was grouped based on a common theme. For example, one section of a basal series was entitled "Community Spirit." Each of the stories in that section related to the theme of "community." The stories in the basal had a range of reading ability. Most of the stories had a third grade readability level. Each student had their own copy of the text. The teacher also had an accompanying set of teachers' manuals. These manuals provided a plethora of information related to teaching strategies for the teacher to employ, as well as the identical story that is found in the student's book.

Along with the basal text, the basal series also had accompanying supplemental reading books that correlated with the topic of each story. For example, after reading "Meet an Underwater Explorer," the basal provided four different short books on the same or similar topic. Each book has a different reading level. For "Meet an Underwater Explorer," there were three easy/average leveled selections. The teacher could choose to use Sharks, The Old Swimming Hole, or Rosie. For children who read at a higher reading level, the book Danger at Dolphin Point might have been used as a supplemental reading selection. Along with the supplemental reading, the basal provided extension skill activities to correspond with the supplemental book that was used. If Sharks was read by a group of low reading ability children, then those children would have been instructed to create a shark mobile. On the shark mobile, the students would have listed the main idea on a shark and then provide supporting details on the remaining sharks that would hang below the first shark.

Included in the basal package is a series of workbooks for the teacher. Most workbooks are black-line masters, so that the teacher picked which pages she opted to use. One workbook provided for the teacher is a skills workbook. Teachers had a consumable workbook for each child included in the basal package. This book covered skills such as vocabulary, main idea,

comparisons, and comprehension. In "Meet an Underwater Explorer," for example, a page is dedicated to story comprehension. The students are asked to think about what they had learned in the story and then complete the summary that is written on the workbook page. The beginning part of the worksheet stated:

**ACHIEVEMENTS:** Sylvia Earle is one of the world's best

(1.) \_\_\_\_\_ divers. As an ocean scientist, she has set many (2.)  
\_\_\_\_\_ records and tested new (3.) \_\_\_\_\_.

The students were then instructed to complete the task. At least six worksheets are provided for each story allowing the teacher to assign a workbook page for each day of instruction on that particular story.

Another aspect of the basal series is corresponding spelling instruction. Teachers had an option of using this spelling series as part of their instruction. If they chose to use the spelling, then some of the words were found within the story, and the remaining words followed the specified phonetic pattern for that week. In "Meet an Underwater Explorer," the phonetic focus was on words that have a long "e" sound or short "e" sound, but are spelled with an "ea". The word "reason" was one of the spelling words that occurred in the story itself. Other words that were on that spelling list included:

ready      breakfast      reach      death      feather      teach

The basal also provided a 5-day plan for teaching the spelling words in the teacher's manual. Using the "ea" words, a student may have sorted the words by the "ea" sound one day, then have done a worksheet matching the word and definition the following day. Some teachers may have had a spelling workbook for each child in the class, however, it is not an included item in the purchase of a basal series, and, therefore, many teachers would not have had an individual spelling workbook for each child.

### Procedures

In the summer of 2001, teachers were asked to volunteer for a four-month study on students who are struggling with reading. The teachers were instructed to give two of the pretests to determine the beginning reading level of their students. At the beginning of the 2001-2002 school year, all potential subjects were assessed using the Slosson word list and the QSI. All teachers who were participating in the study gave the QSI and the Slosson to their entire class. Although many teachers use these tests to assess their students at the beginning of every year, the volunteer teachers agreed to give the tests at the beginning of the year and again in December. Some of the teachers had used these tests consistently and some of the teachers had never used these tests before.

When administering the QSI, the teachers were instructed to hand out a piece of paper with 25 numbered lines. The students were read a word and asked to spell that word to the best of their ability. After the first five words had been given to the entire class, the teacher was asked to walk around the room and scan the students' responses. If at that time he/she found a paper with all incorrect responses, the teacher should have told that or those children to stop and collect that/those papers. Otherwise, the test should have continued, and the next five words were read. Again, the teacher walked around the room, and if any child had missed three or more words in the next section, then that child or those children were told to stop and their papers were collected. This process continued until all papers are collected or all words in the 25 word lists were read. The next test that was given was the Slosson word list.

The Slosson was given on an individual basis, but it was given to all the students in the class. The teacher called back one student at a time and asked them to read the first list of words on the page. The teacher marked which words had been read incorrectly. The child was asked to stop if he/she had read more than ten words in one list incorrectly. Otherwise, the child was asked to read the next list. This process continued through the lists until a child read more than ten words incorrectly from one list. The teacher then used the grade equivalent sheet that was provided. The teacher added up all of the correct words read by the child and recorded the



number of words read correctly. He or she then used the equivalent sheet to determine at what grade level the child was reading. The teacher did this for the entire class. This helped the teacher to determine which children were reading below a third grade level.

After administration of the QSI and the Slosson, the teacher identified which children would be given the Flynt-Cooter assessment. The children who were assessed with the Flynt-Cooter qualified as a subject for the study if he or she was reading below the third grade level according to the Slosson word list assessment. Because the students in this study were reading below grade level they most likely would also be below grade level in the orthographic skills. Therefore, the student's performance on the QSI ranked in either the letter name or within word section.

The final pretest was then given to the children who met the previous qualifications. The Flynt-Cooter, due to the extensive time it requires, was only given to the qualifying students. Each child who qualified was tested individually. The teacher called one child back at a time and asked them to read the initial passage of sentences. The child read each sentence until he or she made two or more mistakes within a given level. Any error that was made by a child, no matter how small, was considered an error. If a child made an error, but corrected it him/herself then that error was not counted. The teacher was not allowed to help or encourage the child in any way during the initial passage. Once the child had made two or more errors within a level, the teacher stopped the child. The teacher noted the passage in which the errors occurred and then the teacher used the previous level as the starting level for the child to begin the reading of a narrative passage. For example, a child may have read the following three sentences in level three:

1. The forest was something to see.
2. I was enjoying sleeping when my Mom called.
3. I had to go to bed early last night.

However, when the child read the sentences, he or she may have said "is" instead of "was." The next mistake may have occurred when he/she read the second sentence and omitted the word "my" before the word "Mom." The teacher, at this point, would have stopped the child, and mentally noted that level 2 was the last level the child successfully read. The teacher then

gave that student the narrative passage for level 2 entitled, "The Pig and the Snake." The teacher read the directions on page 66 of the Flynt-Cooter book that corresponded with the level two assessment. The directions provided a background statement that was read to the child and a set of directions for the teacher. In the set of teacher directions, it provided a statement for the teacher to read to the child. The statement told the child to read the passage silently and that they would be asked about the story once they were finished.

While the child read the text silently, the teacher finished reading the teacher directions, which instructs the teacher on how to mark the answer sheets that corresponded to level 2. After the child had finished reading the selection, the teacher asked the child to tell the teacher about the story. If a child said something in his/her response that answered one of the questions on page 66, the teacher marked that question "ua", for unaided response. For example, after reading "The Pig and the Snake", the child told the teacher that the story was about a pig and a snake on the side of a road, then the teacher should have marked "ua" for the following questions:

1. Where did the story take place?
2. Who were the animals in the story?

After the child finished his/her account of the story, the teacher then asked any of the unanswered questions, such as:

7. How did Mr. Pig feel after he helped pull the snake out of the hole?

If the child answered the question correctly, the question was marked with an "a" for aided response. If, however, the child could not answer the question, it was left blank.

The next step was to determine how many questions were answered correctly. Regardless of what level test was being used, the performance summary was the same:

#### **Silent Reading Comprehension**

- 0-1 questions missed= easy
- 2 questions missed= adequate
- 3+ questions missed= too hard

The next question the teacher had to answer was if the child had passed the current level. If the child had, then he/she, in this case, went to level three. If the level was too hard, the student went back to level one, and if the level was adequate, the child continued the assessment at this level.

The next step was to have the child reread the same section aloud. This time, the teacher used page 68 of the Flynt-Cooter assessment protocol to record any mispronunciations, substitutions, omissions, insertions, self-corrections, or meaning disruptions that the child made. Page 68 contains a grid sheet for this purpose. After the child read the first 100 words (that is all that is used in every level of the assessment protocol), then the teacher recorded the number of oral errors. The performance summary criteria for the oral reading is:

**Oral Reading Accuracy**

0-1 oral errors= easy

2-5 oral errors= adequate

6+ oral errors= too hard

Again, the teacher determined where the child was functioning. If the child was adequate, the teacher then did a listening comprehension component. The teacher read the background statement again, read the passage to the child, then ask the child the same questions associated with that passage. The listening comprehension performance summary is:

**Listening Comprehension**

0-2 questions missed= move to the next passage level

2 or more questions missed= stop assessment or move down a level

If the teacher stopped at that level, then the assessment was complete and that child's reading level was established. If the data showed the passage was too hard, the child was asked to attempt the next lower level until an adequate performance was reached. If the data indicated that the passage was too easy, the child was moved to the next higher level and continued until he/she reached a level of adequate performance. This was done for all

prospective candidates until all students below a third grade level from each classroom had been identified.

After all prospective children had been given each of the three tests and the subjects were determined, then the STARS children began being instructed by their teacher using the Project STARS method. The children in the basal classroom also began their reading instruction after all three tests had been administered and the subjects had been identified.

### *Project STARS Procedure*

Project STARS has a specific format for each lesson. Every lesson was thirty minutes and contain four components. The four components were done in the following order: 1) reread a familiar text, 2) word study, 3) guided reading, and 4) written response. Each component will be further explained to provide a clearer picture of the STARS format.

#### *Rereading of Familiar Text*

The first part of STARS lasted for approximately five minutes. In this section, the child chooses any book that he or she has previously read. Examples of books for rereading include: Curious George, Clifford, any Dr. Seuss books or any book that had been used previously in a STARS lesson. This part has several purposes. First, it allows the child to begin the lesson comfortably in a stress free environment. The child also began each lesson with success because he/she had already read the text and could feel secure in knowing that he/she would be able to read the text independently. The reading material was selected by the child, but the teacher could assist by providing a box of books that had already been read by the child successfully. During this five minute period, the child performed two other tasks.

If the STARS group was made of up five children, for example, the children began the five minutes of rereading. While they were rereading, the teacher selected one child to work with one-on-one (With five children, each student had this opportunity once a week). The teacher asked the student to reread a selection to the teacher that the teacher selected. The selection is 100 words, is familiar text, and had been given to the student previously to study. The purpose of this is two-fold. First, the child is timed to increase fluency. The child is not concerned with

accuracy at this point, but is concerned with completing the section of 100 words in a one minute time frame. The selection, since the child had read and practiced it before, is very familiar to the student and, therefore, can be completed quickly with few errors. When the child read the selection within the designated time frame, then the child passed that selection and was given a new selection to practice. In this way, fluency increases, but the self confidence of the child also increases. This was a critical component because these children are all too aware that they do not compare to their same aged peers and are often very reluctant to read orally.

After the timed reading, the teacher asked the student to read a section aloud from a familiar text. Again, this was a 100 word segment and the purpose of this section was not for speed, but for accuracy. The child read the selection and the teacher recorded a running record on the child. Just as in the Flynt-Cooter assessment, the teacher noted all miscues made including self-corrections. After the 100 word rereading, the child was asked to tell about what he/she had read. The teacher recorded what the child had related. Then both teacher and child looked at the errors that were made and discussed why those errors were made. For example, if the child made seven errors and every error had the omission of the ending consonant, the teacher and child would both know that the end consonant needed to be the focus of that child's instruction. Again, this was done only once a week. After the five minute period, the children returned their rereading books and join the group for the second part of the lesson.

### *Word Study*

The second part of the lesson lasted approximately ten minutes. This is the word sort component of STARS and its purpose was to help students apply phonetic generalizations to their reading. The children had word sort cards that they had made or had been given to them. The words that were used were determined by the results of the QSI. If, for example, all the students were working on the diphthong "ou" and "ow", they may have been asked the first day to sort those words into groups. The teacher would not provide any other instruction at that point. After the students sorted the cards, the teacher would ask them to read the words and explain how they chose to sort them. For the first day, that might be the entire word sort lesson. In

subsequent days, however, the students would discover the “rule” of the diphthong, sort the words using the diphthong, discover other words that fit that rule or pattern, find words within a text that have the diphthong, or any number of activities working hands-on with the word cards. Using the Words Their Way book, which is part of the Project STARS instruction, teachers could create games, picture cards, word hunts, and numerous activities to study the words in the children's orthographic stage. After the ten minute word sort, the largest part of the STARS lesson began.

#### *Direct Instruction*

The third component entailed the direct instruction of comprehension strategies by the teacher. The children and the teacher would meet in the small group, usually around a table. The teacher selected a book for the students to use in the direct instruction. The book could be any type of literature, from a book out of the Rigby series to a chapter book selected from the school library. Often the book selected was based on reading level, difficulty of the text, and availability of several copies of the same book. It is critical that each child have their own book. One teacher, for example, may have chosen Frog and Toad are Friends to use during direct instruction. Using the Project STARS manual, the teacher would select a strategy to teach to the students. Each strategy teaches the child a different comprehension strategy. For example, QAR teaches the child that they are three types of questions you can ask yourself when reading a story. The first question is a “right there” question and this question can be answered from information right in the text of a book. In Frog and Toad, a “right there” question might be: Who is refusing to get out of bed in Spring? Using the pictures and the text, the student could easily answer that Toad is the correct answer because it is “right there” in the text. The second type of question is “think and search.” These questions are not directly in the text, but can be found using the information from the text and the pictures. In “Spring,” a “think and search” question might be: Why does Toad continue to say, “Blah!” The students can search through the text and find words that inform them that Toad is unhappy about getting out of bed and starting his day. The final question type is “own my own.” This question type requires the child to make an

inference. Children take personal knowledge and apply it to answer a question about the book. Again, in "Spring", the children could infer "own their own" that Toad was wearing his pajamas when he was in bed because they too wear pajamas when they are sleeping.

Using the QAR, in the example, the teacher would discuss the pictures on the first page or two, and would conduct discussion about what the students thought might be happening. Then the teacher might have asked several leading questions, like: What do you think Frog will do to help Toad? After prompting the students, the teacher would tell the children to read a certain number of pages, maybe the first two, and find the answer to the questions she/he had asked. The students would silently read the passage or pages. When they were finished the students and teacher would discuss what they had read, talk about the predictions they had made, answer the questions that were asked, and ask some new questions. The teacher guides the discussion to include questions like:

Can you give me a "right there" question from page 2?

How did you know Toad was wearing pajamas? What kind of question is that?

In this way, children took an active role in discussing literature and had begun to understand how to comprehend a book in small pieces. Once the discussion was finished, the teacher would ask them to read another portion and the process would be repeated.

After several discussions and silent reading of specific sections, the teacher would ask the students to either finish the book, the chapter or a section independently. If the children were extremely low in ability, the teacher might have had them reread the section that was read as a group or make a drawing of a future prediction. Either way, the fourth section of STARS is an independent component for the child.

#### *Written Response to Reading*

In the fourth section, the child would be given some task to complete independently. The task would vary greatly depending on the students' abilities, but it should have been a task that lasted approximately 30 minutes. For low ability students, they might have been asked to respond in writing or picture form to the section they just completed. If they had limited abilities,

this might have been done with the group. However, for most groups, the teacher assigned them a task. The task could have been to fill out a graphic organizer showing cause and effect after the child had read the remaining pages of the book independently or the child could have been told to finish the chapter and complete a reading response about what was read. Whatever the final task was, it should contain some sort of written component that had the student respond in some way to the reading that had just occurred. Generally, the students would also be asked to continue or finish reading a section on their own. Again, this final section would be completed independently and would last for approximately 30 minutes. This would give the students time to practice their newly acquired skills and make the students responsible for reading independently and completing a task to show their level of comprehension.

The Project STARS model was repeated on a daily basis by each teacher teaching the STARS method. The study continued for a period of four months. At that time, the three pretests were given again to the students participating in the study. The posttests were compared to pretest scores in order to see the level of growth, if any, in the area of reading comprehension, spelling ability, and word recognition.

#### *Basal Readers Procedure*

##### *Prereading*

The first step in a basal lesson is the preparation to read a selection. The purpose of the prereading activities is to build background information, expose the students to unfamiliar vocabulary, and activate any prior knowledge on the subject or selection. This can be done in several ways, but generally, the students begins by exploring the topic. In "Meet an Underwater Explorer," the teacher might have begun by using a graphic organizer of a K-W-L chart (Know, Want to Know, Learned) to determine what prior knowledge the students already had on the subject of the ocean. As a class, the students would relate what they knew and what they wanted to know about the topic. Afterwards, the teacher might have introduced the new or unfamiliar vocabulary that appeared in the story. Again, there are many ways the vocabulary could have been introduced. The skills workbook provided at least one page of vocabulary



practice. This could be used prior to reading to teach the new words or it can be used as reinforcement after the activity. The basal also provided transparencies that might have been used to introduce the vocabulary. Some teachers might have chosen to have the children look up the vocabulary words in the glossary of the basal or in a dictionary. Once students' prior knowledge had been activated and vocabulary had been discussed, then the teacher could provide a purpose or posed a question about the story that was about to be read. After the teacher had set a purpose for reading, the students would begin to read the text.

Vocabulary should have been discussed and reviewed each day that the story was read. The basal series is designed so that one story is read a week. Therefore, the students would have spent a week reading the selection "Meet an Underwater Explorer." The review of the vocabulary could have been addressed orally, in writing, or through some sort of activity like a word hunt.

### *Guided Reading*

The second step in a basal program is to conduct guided reading of a selection. The act of guided reading could have taken on many forms. Students might have listened to the story read by a tape or they might have listened to the teacher read the story. Students might have read it independently, with a partner or group, or the selection could have been read as a class. Generally, on the first day of a new story it is read as a class so that the teacher can stop and ask questions throughout the selection. During the reading of the text, the teacher's edition of the basal provides strategies for reading and comprehension, questions for the teacher to ask of the students, skills that can be discussed for each page of the text, and ways to informally assess the students. For example, in "Meet an Underwater Explorer," the teacher is told to ask students the following questions:

How can paying attention to the main idea help you figure out what is going on in the selection?

What strategies will you use the next time you determine the main idea of a passage?

The story "Meet an Underwater Explorer" is intended to be read several times during the week. Teachers might have had the students read the text each day using a different technique. The teacher's edition of the basal suggests the following ways to read the selection throughout the week:

1.) read independently 2.) read and teach 3.) read aloud and 4.) read together

The teacher might have had the students read with a group or partner, read it to the teacher, or read it with the tape. Some teachers might also have had the selection on a CD-ROM so that the book could have been read to them with accompanying animation.

### *Comprehension Skills*

The next step is also varied, depending on the teacher, but it is when students are asked to answer questions about the selection they have just finished. The questions were either asked orally, in writing, or in the form of a worksheet. Some teachers might have asked the student to respond to the literature individually through a journal. A typical question would be:

What do you think about the job of a marine biologist?

The students would have answered the question in the form of a paragraph to be checked by the teacher or shared with the class. Children may have also been asked to form small groups and discuss the story as a group; again, using their journals. If the teacher chose to have the students' comprehension checked orally, she/he might have asked them questions as a group like:

Pretend there was not a title for this story. What title would you give this article?

Since this is time consuming and it doesn't allow the teacher to assess all children, this is usually done throughout the guided reading and not done after the reading. The most common method of responding to the selection is through the use of the skills workbook. The workbook provides several pages of skills practice for each story. The teacher might have discussed the main idea of the story and then assigned a workbook page that asked the student questions about the main idea of the story. These pages were usually collected and graded.

Each day the child would be assigned some sort of activity to complete. If on Monday the student worked on main idea, then Tuesday they might have been given a worksheet on the author's purpose for writing the selection. Usually, towards the end of the week there would be a comprehension test, which was provided for the teacher in a skills book. Teachers might have chosen to not do a skill page one day and chose to do an enrichment activity instead. The final part of a basal lesson is the enrichment activity.

### *Enrichment Activity*

The enrichment activity might not be done everyday, and therefore, is usually saved as an activity for later in the week. Enrichment activities are varied for each story and several options are given for each selection in a basal. One activity might be a literature trade book or little reader that accompanies the basal series. In "Meet an Underwater Explorer," the students might have read the book Sharks one day instead of reading "Meet an Underwater Explorer." After Sharks was read, the teacher would have assigned an activity like create a main idea mobile using shark cut-outs, or write a summary about the book. A writing activity might have been used as an enrichment activity. The students might have been asked to create a diorama of an underwater scene, write a descriptive paragraph about a sea creature, or write to the author of the selection about the story. Another aspect of the basal's enrichment activity is a section called, "Across the Curriculum." In this section, the basal provides enrichment activities that teachers can use to relate other subjects to the story. In "Meet an Underwater Explorer," the basal suggested that teachers have students research underwater species to connect the story with science. They also provide an art activity where the children use watercolors to create a fictitious sea creature, as well as a drama activity where students demonstrate several activities that occurred during the story. The enrichment activities vary from story to story depending on the curriculum involved in the selection. All stories have at least one poem after the story to add to the enrichment activity. Some teachers choose to skip the poems, others use them as a separate lesson, and others read them for pleasure during the week.

The enrichment activities were very often omitted from the basal lesson. They were generally not used everyday and usually were saved for a Friday activity. Again, some teachers chose to disregard them totally.

A typical basal classroom read the same story for a week, as is the intent of the basal. At least one worksheet is given to the children per day after reading after the selection was discussed. In general, most teachers pulled a group or an individual child each day to have them read at least part of the selection to the teacher. This allows the teacher to work in a small group or one-on-one with a child in order to help them with specific reading difficulty. Some sort of assessment, usually a ten question comprehension test, was given at the end of the week to determine the level of mastery. The following week a new story would be introduced, using a similar theme, and the aforementioned process was repeated.

## CHAPTER 4

### RESULTS

#### Scoring of Dependent Measures

##### *Flynt-Cooter IRI*

The Flynt-Cooter assessment was rated using a 5-point grade level equivalent framework. The lowest possible score (-1) was equivalent to a preprimer reading level. The next level, primer, was scored as a 0. The remaining possible scores corresponded to the reading grade level equivalent, which were 1, 2, and 3 respectively. The subject's score was determined using a previously determined, grade level passage that they could read with 5 or less oral errors and still answer 2 or less reading comprehension questions on that same passage. If the subject was unable to pass either the oral or the question section of a passage, the subject was asked to read the next lowest passage. This procedure continued until the subject passed both the oral and question section of a passage. If a subject was able to read the passage with 0 or 1 oral errors and missed 0-1 of the comprehension questions, then that student would be asked to read the next highest reading passage. Again, the subject would continue to read passages until he or she had made 2-5 oral errors and had missed 2 or more comprehension questions.

##### *Slosson*

The Slosson word list provides a scoring sheet with the word list. The subject is asked to read a list of twenty words. The subject is asked to read as many lists as possible until 10 or more words are missed in 1 list. The subject is asked to look at the remaining lists to determine if he or she knows any of the other words. Once the subject has identified the words he or she knows, the subject is finished and the assessment is scored. The total number of correct responses is counted. The Slosson assessment provides a grade equivalent and age equivalent

score based on the number of correct responses. For example, a child with a score of 62 words correctly identified would have a score of 2.3 and an age equivalent of 7.2. For the purpose of this study, the grade equivalent was used in scoring the Slosson.

#### QSI

After the subjects took the spelling inventory, the test was reviewed to determine the spelling level of the subject. The subjects were assigned to one of the four categories based on the spelling patterns that they knew consistently. For example, if a subject was unable to spell "bed" and "ship" correctly because the last letter was always incorrect, then that subject would be an emergent speller in that he or she was unable to correctly identify the final consonant sound. However, if another subject spelled those same words incorrectly because he or she had the vowels incorrect, then that subject would be placed in the early letter name group. The four spelling categories were scored as follows: emergent-1, letter name-2, within word-3, and syllables & affixes-4. A subject who was in the within word group received a 3 as their QSI score.

Subjects in both the basal group and STARS group were assessed using these three measures in September and again in December. The means and standard deviations for these three assessments are listed in Table 4.

#### Correlations

Correlations were calculated in order to determine the relationship between the dependent measures. Correlations between the pre and post scores were analyzed to determine the best way to proceed with data analysis. Table 5 provides the intercorrelations of the pre and post scores for each of the dependent measures.

#### Analysis of Flynt-Cooter, Slosson and QSI

Independent t-tests with group (Basal or STARS) as the independent variable were conducted for each of the dependent measures. Because all of the dependent measures were

significantly correlated the alpha per comparison was controlled for overall Type I error rate. Unless stated otherwise, alpha level used was .017 (Bonferroni). Hereafter, the dependent variables will be referred to as Change in Slosson, Change in QSI, and Change in Flynt-Cooter. The mean and standard deviation change scores are listed in Table 6. The Flynt-Cooter IRI was statistically significant,  $t_{(44)} = -4.66$ ,  $p < .001$ . The change from pre to post was significantly greater for the STARS subjects than the basal subjects. For the Slosson,  $t_{(35)} < 1$ , no significant differences in change scores from pre to post were observed between the two groups. No significant difference were seen between the two groups from pre to post scores on the QSI,  $t_{(44)} = 1.09$ . Table 7 lists the t tests for the change statistics.

The original pre and post tests scores for the dependent measures (Flynt-Cooter, Slosson, and QSI) were submitted to independent t tests with group (basal or STARS) as the independent variable. Table 8 shows the t tests for the dependent measures. The per comparison alpha for these six t-tests is .008 (Bonferroni). For the Flynt-Cooter, the pre Flynt test was  $t(44) = 3.65$ ,  $p < .001$ . The basal subjects had significantly higher pretest scores than the STARS subjects. The post Flynt-Cooter test was not significant,  $t_{(44)} < 1$ , in that posttest scores were equal for both the STARS and basal subjects. Basal subjects, however, had significantly higher score than the STARS subjects at pretest on the Slosson,  $t_{(35)} = 5.27$ ,  $p < .001$ . The post Slosson score,  $t_{(35)} = 4.41$ ,  $p < .001$  determined that after the four months, the basal subjects still outperform the STARS subjects. The third dependent measure, pre QSI  $t_{(44)} = 1.61$ , was not significant. Both groups, basal and STARS, were equal at the pretest for the QSI. In the post test analysis, the basal students outperformed the STARS subjects,  $t_{(44)} = 3.24$ ,  $p < .002$ .

### Interview Data

After the data was collected from the volunteer teachers, the volunteers were asked to respond via email to 7 post hoc questions. The volunteers were asked to fill out a questionnaire regarding their participation in the study. The interview questions were used to help provide clarification regarding the results of the study. A list of the questions asked is in Table 9. The

questions asked included the amount of time, both days and minutes, was allotted for reading instruction, any students absent for extended periods of time, the way in which instruction was conducted, as well as the adherence to the program that they were using. Other questions asked the volunteers if any other reading techniques were utilized during the study and, for STARS subjects only, if they used the STARS program as a supplemental reading program. This question was addressed because the STARS program is intended to be used as a supplemental program in addition to reading instruction. The responses of each volunteer are provided in Table 10.

### *Summary of Interview Data*

The first of the 7 questions dealt with the amount of time each student spent in reading instruction. The major reason for this line of questioning was two-fold. First, Project STARS is meant to be used as a supplemental program. If it is indeed used that way, then it would seem obvious that students who received extra reading instruction time would perform better. The interview data indicates that all basal volunteer teachers taught reading for a longer period of time than did any of the STARS teachers. On average STARS students spent 3.6 days and 29.6 minutes per day on reading instruction. However, basal subjects, on average, spent 4.5 days and 34.9 minutes on reading instruction (See Table 11). This clarification is necessary due to the very nature of the original intent of Project STARS. Although Project STARS was originally intended to be a supplemental reading program, Project STARS students in this study actually received less reading instruction in terms of minutes in the day and days of the week than did the basal subjects. Bruning, Schraw, and Ronning (1999) suggest the use of a focusing strategy, such as the questioning techniques employed in QAR, enables students to learn more with no more or even less time on-task.

On further analysis it was found that only one STARS teacher devoted any reading instruction time to the use of the basal text and she reported that it was only one day a week and that the reading was only used for enjoyment, not for direct instruction in reading. It is unknown how the data would be altered if Project STARS subjects had spent an equal amount of time on



reading instruction as did the basal subjects. It may be hypothesized that the data would have shown an even larger discrepancy on reading comprehension growth if the STARS students had received as much reading instruction as did the basal group. Amount of time devoted to reading instruction provided some explanation of the results, but other questions regarding supplemental reading instruction allowed for greater clarification of the data.

All volunteer teachers were also asked to comment about additional reading instruction, the use of their designated program, and the method of reading instruction. Of the eight volunteer teachers, only one teacher, a basal volunteer, taught using a whole class approach. The other teachers used small groups as their primary means of reading instruction. In the area of additional reading instruction, all the basal volunteers had extra reading time provided for the subjects. Two of the basal volunteers had parents or other teachers read at least twice a week with the subjects individually, one volunteer did additional small group reading twice a week with the basal subjects, and the fourth teacher used volunteer buddy readers for additional reading time. This instruction was provided in addition to the regular reading instruction conducted in the classroom. Therefore, although this time was not counted in with their daily reading instruction totals, it allowed the basal subjects reading instruction above and beyond the amount they were already receiving on a daily basis. Of the STARS teachers, however, only one teacher used additional time in reading instruction. That teacher had a volunteer parent read twice a week with the English Language Learners (ELL). Based on the interview data, basal students were not only given more directed reading instruction, but provided with more supplemental reading instruction than were the STARS students. This finding has significance in that it shows a marked gain in reading comprehension with less time devoted to direct reading instruction and supplemental reading instruction.

The thoroughness with which the reading programs were followed was addressed to determine if the adherence to the program, or lack thereof, may have contributed to the research findings. For the basal teachers, all the volunteers used pre-reading, guided reading, comprehension checks/workbooks, and vocabulary development with their students. Only two

teachers mentioned the use of enrichment activities along with their weekly lessons. Therefore, two of the volunteers either did not use, or neglected to mention the use of, enrichment activities in reading instruction. Although enrichment activities generally do not focus on comprehension of the story, this may be a factor in the lack of comprehension improvement for the basal subjects. For the STARS subjects, two of the four teachers noted that they did not utilize the word sort/phonics part of STARS throughout parts of the study. This may have had an effect on the lack of growth in the area of phonics/decoding as seen of the results of the QSI. Due to the fact that half of the STARS subjects did not receive directed phonics/decoding instruction on a daily basis, as is intended by STARS, it may have had a direct impact on their QSI posttest results. Considering that all the basal subjects were instructed in some form of decoding/phonics activity, it can be hypothesized that the STARS students may have performed better on the QSI posttest if they had been given directed phonics/decoding instruction throughout the study. A summary of the interview data is provide in Table 11.

In summation, the results of the data, combined with the anecdotal information for the teachers' questionnaire indicate that basal subjects received more reading instruction for a longer period of time than did the STARS students. The basal subjects also had more time devoted to additional reading support above and beyond the classroom reading instruction. Although teachers from both groups did not follow their program exactly as recommended, it appears that the deletion of directed phonics instruction from half the STARS students may have a direct impact on their growth on the QSI posttest. Further research, however, would be needed to verify this information.

## CHAPTER 5

### DISCUSSION

Research in the area of reading instruction has historically been conflicting and controversial. Many speculate and debate on the most beneficial ways to educate young children in the area of reading. There is continuing research on the best practices in reading instruction and remediation. The current trend, however, is to remediate low achieving students within the classroom, although little research has been conducted on the benefits of remedial reading instruction within the regular classroom setting. Reading comprehension, in particular, is a large focus for intermediate students who are reading below grade level. The current study was designed to investigate the potential benefits of two reading instruction approaches used in the regular classroom. The traditional basal text was selected due to its prevalence in elementary education classrooms (Samuels & Farstrup, 1992; Aaron & Joshi, 1992; Barr & Johnson, 1991). A new program, Project STARS, was selected due to its current popularity as a program aimed at intermediate, struggling readers. Both programs also were influenced by previously successful reading practices like DRA and Reading Recovery (Honig, 2001; Allington & Walmsley, 1995; Wasik & Slavin, 1993; Reutzel & Cooter, 1992; DeFord et al., 1988).

It was hypothesized that both groups would show growth from the pretest to the posttest on all three dependent measures. As hypothesized, both reading groups showed an increase in word recognition (Slosson), word decoding/spelling (QSI), and comprehension (Flynt-Cooter) from pre to post scores. These results were not surprising. All students had received direct reading instruction for four months. It was expected that both groups would show gains in all reading areas as a result of instruction.

It was also hypothesized that the students instructed using Project STARS would show greater improvement on all three reading posttest measures than the basal students. Each of the dependent measures will be discussed separately to provide clarification of the results.

#### Flynt-Cooter

Subjects from the basal group started the study at a significantly higher reading level than the Project STARS students. Although the students started out unequally, the groups ended the study with nearly equal reading comprehension outcomes as measured by the Flynt-Cooter IRI. The results show that there was a significant change from the pre to post test scores for the STARS subjects. The change was so significant, in fact, that the groups had no significant differences in their ability to comprehend written material by the end of the four-month study. Although the basal students started the study at a higher reading comprehension level, the STARS subjects ended the study being able to comprehend at the same level as the basal peers.

The results of the investigation also indicate that reading instruction through the use of a basal textbook may be less beneficial for remedial students in the area of comprehension. Students who were instructed using the basal showed significantly less growth in the area of comprehension than did the STARS students. This demonstrates that students who were instructed using Project STARS showed a greater gain from their Flynt-Cooter pretest to posttest scores in the ability to answer questions regarding a reading passage. At posttest, over half of the Project STARS subjects scored two reading levels above their initial pretest score on the Flynt-Cooter IRI, whereas only one basal student had an increase of two reading levels above their initial reading. This finding is of significance to both teachers and students using Project STARS.

These findings support previous research on comprehension (Barr et al., 1990; Honig, 2001; Templeton & Morris, 1999). Project STARS' main focus is on the comprehension of written material. STARS utilizes the concept of appropriate levels of reading materials which has been

shown to successfully increase comprehension (Morris et al., 1996; Samuels & Farstrup, 1992; Pikulski, 1994). Furthermore, Project STARS employs the direct instruction method of teaching reading strategies to make students better at reading comprehension. Strategies such as QAR and DRTA have been used successfully to increase comprehension (Honig, 2001). The largest part of STARS, the guided reading, is devoted to teaching reading strategies to students in order to assist the student in developing appropriate reading skills. The teacher orchestrates the lesson, asks questions, and has students respond to what they've read in a small directed lesson (Honig, 2001; Walmsley & Allington, 1995; Barr et al., 1990).

These findings are also consistent with research on the basal's ability to provide direct comprehension instruction. The basal has been criticized for its abundance of comprehension worksheets, but its lack of comprehension instruction. Although suggestions are provided in the basal to discuss topics such as cause and effect or problem/solution, little information is provided to teachers to help them teach students how to comprehend what is being read (Reutzel & Cooter, 1992, Aaron & Joshi, 1992). The teaching of comprehension through the basal is often through the use of questioning throughout the reading of the text and is done by the teacher (Goodman et al., 1987).

#### Slosson

When students were assessed using the Slosson word sort, the basal students again had higher scores on both the pretest and posttest than the STARS students. Neither group, however, made significant gains from the pre to post test. Although the traditional basal text had a controlled vocabulary for the purpose of increasing sight vocabulary in students, the basals of today are often filled with authentic literature and have little similarity to the traditional "Dick and Jane" readers of the past (Hoffman, 1998; Reutzel & Cooter, 1992; Barr & Johnson, 1991). In the same way, because Project STARS uses authentic literature in instruction, controlled vocabulary and repetition of unfamiliar words are not typically found within the literature that is

used. The decodability of both types of literature, therefore, was often more difficult than a traditional basal text like "Dick and Jane."

Another reason for the absence of substantial word recognition gains may be the limited time allocated for this study. If the study had been conducted over a longer period of time larger gains in word recognition may have been seen.

### QSI

The results of the QSI assessment revealed that both groups were equal on the pretest. On the posttest, however, they were significantly different. The basal students performed better on the posttest than did the STARS, however, the change from pre to post between the two groups was not significant.

The results of the QSI were not anticipated. First, Project STARS dedicates an entire component to word studies in order to increase decoding and spelling ability (Barr et al., 1988; Stanovich, 1988). This component, although short, allows students to investigate patterns, compare, contrast, and classify words (Templeton & Morris, 1999). Secondly, the use of appropriate level words enables students to learn new concepts of print through familiar words (Templeton & Morris, 1999).

The basal students, who performed significantly better from pre to post test were all in the same volunteer class. Based on the post hoc interview, it was discovered that the volunteer teacher in that class provided daily skill and practice in the area of decoding, well above and beyond the basal's spelling program. None of the subjects from other volunteer teachers' classes showed as large an increase on the QSI.

Lastly, in regards to the QSI, the grouping of the subjects into the spelling categories was not optimal. Due to how the volunteers assigned the subjects, it was difficult to group them. The QSI has recently provided a scoring system so that subjects could be assigned a numerical value instead of a categorical placement. If numerical data had been used, the results might have

been different. Because the data was collected only in categorical fashion, however, there is no way to convert it into numerical data post hoc.

### **Analysis of Interview Data**

#### ***Flynt-Cooter IRI***

Although Project STARS was intended to be a supplemental reading program, in reality, the teachers in this study use STARS as their sole means of instruction throughout the study for the STARS subjects. In fact, the STARS subjects in this study received fewer reading instructional minutes than their basal peers. Not only did the STARS students receive fewer reading instructional minutes, but they were instructed a fewer number of days compared to the basal subjects. This is especially noteworthy because the STARS students' comprehension level increased to such a degree that the STARS subjects were able to "catch up" to the basal subjects on the Flynt-Cooter IRI. Even with more teacher instructional time devoted to reading instruction, the basal subjects showed less growth in the area of reading comprehension. In addition, the basal subjects also received more additional reading support above and beyond their regular basal instruction, while the STARS subjects only reading instruction was through the Project STARS lessons (with the exception that one STARS volunteer teacher had ELL students read to a volunteer twice a week). Recall, that all four of the basal volunteers utilized additional reading support for their students twice a week.

#### ***Slosson***

One volunteer STARS teacher did not give the Slosson to her students. Although it is impossible to predict how these results might have effected the outcome of the study, more valid results would have been available with Slosson scores for those nine subjects.

#### ***QSI***

The post hoc interview data that was collected suggests that deletion of certain aspects of Project STARS may have had an impact on the result of this study. Although teachers from both groups did not follow the programs exactly as recommended, it appears that the deletion of

directed phonics instruction (the word study) from half of the STARS students may have impeded their progress. The word study was not provided to 12 of the 24 subjects in the STARS group throughout the study. This strongly suggests that the QSI posttest scores for the STARS subjects does not accurately show the growth that the students could have made had they participated in the word study component of the Project STARS lesson.

### Limitations of the Study

The most noteworthy limitation of this study was the absence of a true experimental design. The subjects were in a regular classroom setting, not a laboratory, and therefore, many variables were not under experimental control. Because a true experimental design could not be employed, there was less researcher control of the environment. Time constraints, thoroughness of adherence to the reading program, individual teaching style, classroom distractions, and time of day are all variables that could have had an effect on the results. For example, some teachers might have chosen to teach reading in the morning instead of the afternoon. This might or might not have had an effect on the reading progress of any one student. Because a designated time for reading instruction was not a requirement, this may be an extraneous variable. Another possible extraneous variable was various classroom distractions. If the study had been experimental and conducted in a laboratory setting distractions could have been better controlled. Due to the nature of elementary classrooms, distractions might have included: disruptive children, parent volunteers or visitors, announcements, assemblies, fire drills, or any of the numerous distractions that occur daily in a classroom setting.

The differences between the two groups are another limitation to this study. First, although the original intent was to have two groups of similar reading abilities, the subjects ended up being very different in terms of reading scores. The basal subjects were at least a level or two above the STARS subjects in the area of reading comprehension and sight word knowledge. This is a limitation due to regression toward the mean. It can only be speculated that the STARS students (who were significantly lower than the basal students) improvement was the result of the STARS



training and not due to their extremely low test scores. It could be possible that the STARS students, because they started out so low, improved just because they couldn't do any worse than their original score. Secondly, many of the STARS subjects were ELL (English Language Learners). Although several of the basal subjects were also ELL, it cannot be determined if their improvement was based on their newly acquired language abilities, or if it was due to the reading instruction. If a control group had been used in this study it would be easier to determine if the growth of the ELL students was due to the program, regression towards the mean, or newly acquired language skills. Another difference between the two groups was the use of volunteer readers. Many of the basal subjects received extra reading time with a volunteer. It is unclear if the basal subjects improvements were the result of the extra reading instruction or the basal reading program. The differences between the groups account for many limitations within the study.

Another limitation of the study was the teacher selection process. The teachers who participated in the study were volunteers. A general email was sent throughout the district looking for basal or STARS teachers. The email conveyed the necessity for the teacher to teach one or the other exclusively. This could have had an effect on the data in many ways. First, many potential volunteers may not have even read the email. This immediately limited the number of volunteers to people who choose to read their district email. In this way, the sample was one of convenience, not a true random sample. The volunteers agreed to be apart of the study. This, in itself, is a limitation in that volunteer teachers may have certain qualities that other people may not. Although it cannot be determined through this study, the results may be altered due to the teachers who agreed to take part in the study. Some of the volunteers may have had reasons that they wished to be involved, which may have effected the results. The data also fails to account for the individual teaching style, experience, or competency of the teachers that volunteered.

The time frame surrounding the study is another limitation. The study was designed to assess reading over a four-month instructional period. Although attention was given to track

schedules to ensure all students were receiving the same amount of instructional time, the amount of time provided for the study has limitations. First, although improvement in the STARS students' comprehension abilities was significant, it is unknown whether that improvement will continue throughout the remainder of the year. It is also not known if the child will retain the level of improvement over the next several months or over several years. As was discussed in Wasik and Slavin's 1993 review of remedial reading programs, while growth was evident in the Reading Recovery children by the end of first grade, subsequent investigations reported that retention rates between the Reading Recovery subjects and the control group were nearly equal by the end of third grade. Ongoing investigation is necessary to determine the long term benefits of the Project STARS method in promoting comprehension to remedial, intermediate students.

Another limitation to the study was the adherence to the reading program. Most noteworthy was the absence of word study instruction for half of the STARS subjects and the deletion of the enrichment activities for some of the basal subjects. The results might have been more accurate had all participants followed the programs as intended.

Finally, one of the volunteer STARS teachers did not collect the Slosson data. There is no way to determine how that information (for 9 of the STARS subjects) would have effected the Slosson mean for the STARS group.

While these limitations do not negate the positive effects of the Project STARS method in improving students' comprehension, it provides insight into the validity of the results and the need for control of extraneous variables. The study provides some future directions in the area of reading research.

### **What's Next in Reading Research?**

While it was found that comprehension of remedial readers was improved through the use of the Project STARS method, it provides little to no information about the benefits of either program in the area of phonics or word identification. A replication of the study, with complete data and strict adherence to the programs may help to determine the benefits of phonics

instruction and/or word recognition within the STARS and basal programs. A longitudinal study on the retention of comprehension skills would help to determine the degree to which Project STARS provides a quality comprehensive program.

Although this study did not consider which of the STARS components were instrumental in the students' reading improvement, it can be speculated that the length and direct reading instruction provided in the guided reading component was key in improving reading comprehension among the students. The guided reading aspect of STARS is the largest and most extensive part of the program, which focuses on the comprehension of written material. Therefore, it is reasonable to assume that this component, in conjunction with the other aspects of STARS, produced the accelerated reading scores in the STARS students. However, future research is needed to determine which parts of STARS yield the best results.

Due to the intended use of Project STARS as a supplemental program, further research using both programs in conjunction may help to reduce the reading debates among educators, combine two good reading programs, and discover the potential benefits of using two programs to maximize the educational effectiveness of each program. Researchers may be interested in employing the Project STARS strategies while teaching the basal text. Again, this research may provide several benefits. It would utilize the amount of time spent on reading instruction with two effective reading programs, while finding the benefits of using both approaches on all students; not just remedial readers. As Hoffman (1986) stated, the important question is not the setting or time allocated for remediation, but what occurs during those sessions. Further research is needed to determine if a combination approach to remedial education is possible, and if so, what the benefits of a collaborative reading approach would be. Certainly, if a resolution to the controversy of reading instruction could be minimized perhaps teacher confusion could be reduced and attention could be shifted to the task of bringing all students up to their grade level equivalent.

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## APPENDIX I

### REFERENCED IN TEXT

Table 1

What Works: A Summary of Effective Practices

1. high quality literature on the student's instructional reading level
2. a comprehensive word study/phonics program
3. large amounts of accessible types of literature and time to read it
4. teaching reading for meaning from context
5. emphasis on building background knowledge through graphic organizers
6. small group instruction
7. direct instruction on comprehension and decoding
8. frequent and varied assessment
9. guide reading and teaching of specific reading strategies

Table 2

Four steps to a Project STARS lesson

1. Rereading a Familiar Text	Students reread text to gain fluency
2. Word Study	Students focus on a group of familiar words to learn spelling patterns
3. Guided Reading	Students receive direct instruction on comprehension and are taught instructional strategies
4. Independent Reading/Writing	Students finish a reading or reread a selection and respond to it in writing



Table 3

Four steps to a basal reading lesson

1. Preparation to Read	Students are introduced to vocabulary and prior knowledge is activated
2. Guided Reading	Students read orally or silently and work on comprehension skills
3. Comprehension Skills	Students engage in word analysis or comprehension tasks
4. Enrichment Activity	Students engage in an extension activity

## APPENDIX II

### REFERENCED IN RESEARCH PROCEDURES

Table 4

Means and Standard Deviations for the Pre and Post Dependent Measures

Dependent Variables		BASAL		STARS	
		Pretest	Posttest	Pretest	Posttest
Flynt-Cooter IRI	Mean	2.00	2.64	1.00	2.54
	St. Deviation	.76	.49	1.06	1.22
	N	22	22	24	24
Slosson	Mean	2.57	2.93	1.55	1.91
	St. Deviation	.48	.53	.71	.89
	N	22	22	15	15
QSI	Mean	2.82	3.27	2.46	2.71
	St. Deviation	.80	.70	.72	.46
	N	22	22	24	24

Table 5

Intercorrelations Matrix Between Dependent Measures

	Pre QSI	Post QSI	Pre Slosson	Post Slosson	Pre Flynt	Post Flynt
Pre QSI	_____					
Post QSI	.61***	_____				
Pre Slosson	.54**	.63***	_____			
Post Slosson	.55***	.65***	.93***	_____		
Pre Flynt	.44**	.64***	.65***	.61***	_____	
Post Flynt	.43**	.39**	.59***	.65***	.68***	_____

\*  $p < .05$ \*\*  $p < .01$ \*\*\*  $p < .001$

Table 6

Means and Standard Deviations of Change from Pre to Post for the Dependent Measures

Variable	Basal (N=22); (N=15 for the Slosson)		STARS (N=24)	
	Mean	Standard Deviation	Mean	Standard Deviation
Flynt-Cooter IRI	.64	.58	1.54	.72
Slosson	.36	.36	.36	.29
QSI	.45	.74	.25	.53

Table 7

t-tests for the New Dependent Variable Change Scores

Variable		t	df	sig.
Flynt-Cooter IRI				
	pretest	3.65	44	.001
	posttest	.34	44	.735
Slosson				
	pretest	5.27	35	.000
	posttest	4.41	35	.000
QSI				
	pretest	1.61	44	.115
	posttest	3.24	44	.002

Table 8

t-tests for Pre and Post Dependent Measures

variable	t	df	sig.
Flynt-Cooter IRI	2.66	44	.000
Slosson	0.32	35	.974
QSI	1.09	44	0.284

Table 9

Interview Questions Given to Volunteer Teachers

1. How many days a week did you instruct your students (that were in this study) in reading using either the basal or STARS?
2. How many minutes/hours per day did you spend with your students in this study teaching reading?
3. Were any of the students in the study absent for an extended period of time or did any of your students start later than the other students in your group?
4. Did you work with your students from the study in small group, large group, whole class, or individually when instructing the reading lessons?
5. Using a rating scale of 1-10, how closely did you follow the reading program that you were using for reading instruction? (For example: STARS-did you use all four components, and if not, which one was left out or added at a later date? Basal-did you follow the guided reading, preteaching, comprehension skills/independent reading, and enrichment activities as suggested?)
6. Did you at any time employ other reading teaching techniques with your students from this study, either individually or as a group?
7. STARS Teachers Only need respond- Did you use Project STARS as your sole reading instruction, or did you teach these subjects with both the basal and STARS method? Please be as specific as possible.

Table 10

Volunteer Teachers' Responses to Questionnaire**Teacher 1-BASAL**

<u>Questions</u>	<u>Answers to Questions</u>
1. days/weeks	5 days unless there's a holiday
2. minutes/day	20-30 min/day
3. absent students	1 child; 12 days
4. instructional setting	small groups of 4-5
5. adherence to the program	comprehension activities/some enrichment, teacher's guides
6. other techniques used	senior volunteer for buddy reading
7. STARS teacher supplemental usage	N/A

**Teacher 2-BASAL**

<u>Questions</u>	<u>Answers to Questions</u>
1. days/week	5 days
2. minutes/day	M-60, T-60, W-F 20 min.
3. absent students	none
4. instructional setting	small group
5. adherence to the program	preteaching, guided reading, comprehension, independent reading and enrichment
6. other techniques used	oral reading and comprehension checks with 2 other adults 2
7. STARS teacher supplemental usage	N/A

**Teacher 3-BASAL**

<u>Questions</u>	<u>Answers to Questions</u>
1. days/week	4 days
2. minutes/day	50 min/day
3. absent students	none
4. instructional setting	small group
5. adherence to the program	workbook, skill pages
6. other techniques used	none
7. STARS teacher supplemental usage	N/A

**Teacher 4-BASAL**

<u>Questions</u>	<u>Answers to Questions</u>
1. days/week	4 days
2. minutes/day	60 min/day with vocab. instruction
3. absent students	1 student missed 14 days
4. instructional setting	whole group
5. adherence to the program	vocab., comprehension skills, preteaching, guided reading, independent reading
6. other techniques used	another teacher 2x/wk
7. STARS teacher supplemental usage	N/A



**Teacher 5-STARs**

<b><u>Questions</u></b>	<b><u>Answers to Questions</u></b>
1. days/week	5 days
2. minutes/day	35 min/day
3. absent students	none
4. instructional setting	small group of 4
5. adherence to the program used	all parts; added them as they were learned; word sort last to be added
6. other techniques used	no
7. STARs teachers-STARs only; supplemental usage	no basal

**Teacher 6-STARs**

<b><u>Questions</u></b>	<b><u>Answers to Questions</u></b>
1. days/week	2 student 3x/wk; 3 students 5x/wk
2. minutes/day	30 min/day
3. absent students	one
4. instructional setting	small group
5. adherence to the program used	all parts for 2, used some parts for other 3 students
6. other techniques used	no
7. STARs teachers-supplemental usage	no basal

**Teacher 7-STARs**

<b><u>Questions</u></b>	<b><u>Answers to Questions</u></b>
1. days/week	4 days
2. minutes/day	25 min./day
3. absent students	none
4. instructional setting	small group
5. adherence to the program	yes; all parts
6. other techniques used	only STARs; ELL students had extra time reading
7. STARs teachers-supplemental usage	only STARs

**Teacher 8-STARs**

<b><u>Questions</u></b>	<b><u>Answers to Questions</u></b>
1. days/week	4 days
2. minutes/day	30 min/day
3. absent students	none
4. instructional setting	small group
5. adherence to the program used	all; word sort not as often
6. other techniques used	whole group discussions on Fridays
7. STARs teachers-supplemental usage	STARs only

Table 11

Summary of Interview Questions

	<b>STARS Subjects</b>	<b>Basal Subjects</b>
<b>Average Number of Days of Direction Instruction</b>	3.6	4.5
<b>Minutes per day of Direct Instruction</b>	29.6	34.9
<b>Use of Additional Reading Instruction</b>	1 teacher 2x/week	4 teachers 2x/week
<b>Adherence to Format of Reading Program</b>	2 teachers did not use the word sort for part of the study	2 teachers did not use enrichment

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