

A CASE STUDY ON THE IMPACT OF THE READ 180 READING  
INTERVENTION PROGRAM ON AFFECTIVE AND COGNITIVE READING  
SKILLS FOR AT-RISK SECONDARY LEVEL STUDENTS

by

Jeffrey Todd Vogel

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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## ABSTRACT

The purpose of this qualitative case study was to investigate the impact of the READ 180 reading intervention program upon the affective and cognitive reading skills of 21 struggling ninth grade at-risk students at a Title I high school in Southern California. There was minimal qualitative analysis of the READ 180 program at the secondary level and nominal research in general on affective learning regarding motivation to read for at-risk high school students. This study was designed to explore what changes, if any, may occur in the reading attitudes (affective skills) and comprehension levels (cognitive skills) of participants in the READ 180 program. Data was collected from interviews, observations, and student documents over a 16 week period and then analyzed for themes and connections to the research questions. The findings for this study indicated that READ 180 was a beneficial intervention in limited areas for many at-risk high school students, but it did not meet the myriad of affective and cognitive needs required for grade level literacy development. READ 180 best served secondary level students when it was modified based on individual student needs and interests.

*Keywords:* READ 180, reading intervention, affective, cognitive, secondary, at-risk.

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## **List of Abbreviations and Operational Terms**

- Academic Progress Index (API) – A state of California measurement that determined the academic performance and growth of schools in various academic categories that included reading comprehension.
- At-risk students – Students whose reading performance was at or below the 25<sup>th</sup> percentile on state standardized tests (Proctor, Dalton, & Grisham, 2007). This included students with behavioral issues, learning disabilities, reading disabilities, second language learners, and those reading below grade level.
- Attendance rate – The percentage of school days attended by a student. The rate was determined by total days present divided by the total district school days for the academic year.
- Adequate Yearly Progress (AYP) – A measurement by the federal government that determined the level of academic achievement in public schools.
- Computer Assisted Instruction (CAI) – The utilization of computer software that assisted with instructional support.
- California Star Test (CST) - The CST was an annual test implemented by the state of California to measure the reading comprehension skills of each student in grades 3 to 11.
- English Language Development (ELD) – A supplemental English course divided into four levels and offered to ELL students based on testing.
- English Language Learners (ELL) – English language learners were students whose native language was not English or were from homes where English was not the primary language used.

- Gates-MacGinitie Reading Test – A two-part timed vocabulary and comprehension reading test that determined the general reading levels of students.
- Grade Point Average (GPA) – A measurement on a four point scale of individual student grades.
- L book – One component of READ 180 that focused on the vocabulary and grammatical elements of reading.
- Lexile – A comprehensive test score number that indicated a student’s reading level as determined by their SRI test score.
- MI (utilized in table 4.4) – A student with multiple interventions in math, English or other subject areas. Students with multiple interventions were at increased risk for dropping out of high school.
- No Child Left Behind (NCLB) – A law enacted in 2001 by the United States federal government designed to ensure that schools across the nation created and maintained student proficiency in reading and mathematics.
- READ 180 – A comprehensive reading intervention program designed to provide differentiated instruction for readers whose comprehension ability was significantly below grade level (Scholastic Inc., 2011a). The three instructional components of READ 180 were teacher directed R book instruction, computer software based instruction calibrated to individual student reading levels, and silent reading time that utilized READ 180 approved books.
- R book – An interactive reading response book used as the primary component of whole group and small group teacher directed instruction.
- Response to Intervention (RTI) – Three stages of academic interventions designed to give students specific skills to improve their reading comprehension.

- Scholastic Reading Counts – The third component of READ 180 that combined independent reading, utilizing Scholastic approved books, and computer based reading assessment.
- Scholastic Reading Inventory (SRI) – SRI was a computer-based READ 180 20 question reading assessment test designed to measure the progress of the READ 180 students’ reading levels. It was completed at four intervals in one academic year.
- School Success – A tutoring and support course offered to struggling students. Many READ 180 students were enrolled in School Success via their counselors.
- Sustained Silent Reading (SSR) – Uninterrupted reading time of leisure books used by schools to promote students connection to reading.
- Teacher fidelity – The degree of competency, as rated from moderate to high, based on teachers’ self-evaluations and the adherence to protocol with specific teaching programs or strategies. It was a necessary step between delivering professional development to teachers and the subsequent student learning outcomes (Pence, Justice, & Wiggins, 2008).
- Think-Pair-Share – A three part teaching strategy that focused on students thinking about a topic or question before working in partners to discuss answers. Students then shared their thinking with the teacher and class. This strategy engaged students and helped them conceptualize material.
- Title I – Federal money allocated to low socio-economic students for their academic and social progress.

## **CHAPTER ONE: INTRODUCTION**

READ 180 was a comprehensive reading intervention program for struggling readers designed to improve both their motivation to read and their comprehension skills (Scholastic, 2011). The purpose of this study was to determine the impact of READ 180 on the affective and cognitive reading skills with the various types of students placed into the READ 180 program. The results of this study may assist school districts in making informed decisions on the efficacy of READ 180 so they may address potential weaknesses with proper fix-up strategies.

### **Overview**

The modern high school classroom has had many issues that have affected the learning outcomes of each student. These issues included political influences such as No Child Left Behind (NCLB), teacher performance, school environment, curriculum design and implementation, and individual student needs (Rush & Scherff, 2012). In 2008, 23% of students in the United States did not graduate from high school which ranked near the bottom of developed countries (Ripley, 2008). Yet, “even among students who do graduate from high school, inadequate reading skills were a key impediment to success in postsecondary education” (Slavin, Cheung, Groff, & Lake, 2008, p. 290). This was significant because students who did not achieve at levels in accordance with the literacy demands of an information-based society suffered the loss of job opportunities while increasing the probability of being poor (Bernick, 1986; Whitescarver & Kalman, 2009).

A core element in these perceived educational failures was the stagnant literacy development of at-risk students (Cummins, Brown, & Sayers, 2007). Part of this was attributed to teenage literacy rates which, for the last 30 years, have remained unchanged

because 67% of content area classrooms did not utilize reading strategies in any capacity (McCoss-Yergian, 2010). As a result, in 2009 25% of eighth grade students scored below the basic reading comprehension level (National Assessment of Educational Progress, 2010). Yet some research indicated that testing measurements employed by NCLB were not accurate assessments of student literacy because of their limited design and inflexibility in accounting for individual student progress (Zehr, 2008). In addition, some studies indicated NCLB was founded on an inaccurate report published by the National Reading Panel which stated more reading interventions were necessary in public schools for the purpose of increasing the literacy rate (August & Shanahan, 2008; Krashen, 2004).

Secondary level students have faced numerous obstacles when their foundational reading skills were substantially below grade level. “As students progress through school, their reading comprehension becomes more crucial as teachers present new material through text. Explicit instruction in reading can help students with disabilities make gains in their comprehension” (Stetter & Hughes, 2010, p. 1). Furthermore, a student’s reading ability was the primary determinant of their academic success (Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010). In turn, reading interventions were designed to identify, define, and resolve the literacy issues of at-risk students through multi-tiered and research based instructional methods (Fuchs & Fuchs, 2006; Haager, Vaughn, & Klingner, 2007; Shores & Bender, 2007).

### **Background**

Struggling readers were offered numerous interventions such as tutoring, differentiated instruction, and skill-set building throughout their education in an attempt

to improve their reading skills. Reading interventions were necessary for many students, yet many school sites and school districts adopted programs and strategies for general populations rather than specific students which supported the need for research. READ 180 is a newer comprehensive reading intervention program utilized at elementary, middle, and secondary schools throughout the United States in an effort to accelerate the deficient reading skills of these struggling students (Hartry, Fitzgerald, & Porter, 2008; Hewes, Palmer, Haslam, & Mielke, 2006; Slavin, Cheung, Groff, & Lake, 2008, White, Haslam, & Hewes, 2006). READ 180 provided support for struggling readers, specifically students at or below the 25<sup>th</sup> percentile on state standardized tests (Scholastic, Inc., 2011). Struggling readers were typically comprised of students who had either learning disabilities or were second language learners (Hock, Pulvers, Deshler & Schumaker, 2001).

In California, READ 180 was utilized in many Title I schools, that is schools that received federal funding to improve the academic achievement of the disadvantaged, because it aligned with the federal government's educational objectives for English language learners (ELL) and students with special needs (Elementary & Secondary Education: Title I, 2004). The READ 180 program was comprehensive but may not have maximized the abilities or individual needs of all students utilizing the program. Out of 101 READ 180 studies reviewed by What Works Clearinghouse (2009), only seven studies met the standards required to determine the impact of curriculum for improving students' reading comprehension and general literacy achievement. Foremost among these was White, Haslam, and Hewes' (2006) two year study of the READ 180 program in a large Arizona high school district which found the program to be successful based on

pre and post measurements. Other relevant articles that investigate students' response to interventions (RTI) included research on the effects of primary and secondary reading interventions (Vaughn, et al. 2010). Also pertinent to this study was a paper presented at the annual research conference of the *Society for Research on Educational Effectiveness* in which the authors explored the relative effectiveness of reading interventions for high school students (What Works Clearinghouse, 2009).

### **Situation to Self**

The rationale for this study was based on my interest in advancing the knowledge of reading programs for secondary level students because there was limited research that addressed this specific topic. The epistemology of this study was grounded on my belief that knowledge was essential in developing the complete being and in living a fulfilling life. The axiology for this research followed the approach that education can bring great change by instilling ethics and character through a multi-faceted curriculum. READ 180 incorporated the importance of character throughout its program. A constructivist approach that focused on student-centered learning guided the study. I had no direct connection to the participants in this study except that I previously taught READ 180 for two years at the same school they attended, Pacific High School. According to test scores, the results I had with the READ 180 program were mixed. Students demonstrated limited improvement with reading skills and, in general, remained unmotivated to read.

### **Problem Statement**

The problem was that READ 180 may not have always been an effective means for strengthening the affective and cognitive reading skills of struggling readers at the secondary level. High school students reading below grade level have typically had

many reading issues that require multiple layers of intervention to address their individual literacy problems. For example, READ 180 at the secondary level had minimal support for decoding issues, and students with decoding problems typically struggle with comprehension (Kim, et al., 2006). This created gaps in the students' ability to learn. In addition, proper implementation of an effective reading intervention at the secondary level required awareness about specific student and school factors that influenced learning outcomes (Vaughn, et al., 2008).

The sample for this qualitative case study consisted of 21 students that constituted the typical participants in the READ 180 program within the school site where the research was conducted. Many reading intervention programs were evaluated for their effectiveness over the last twenty years (Calhoun, Sandow, & Hunter, 2010; Fuchs, et al., 2008; Haager, Klinger, & Vaughn, 2007; Huang, Nelson, & Nelson, 2008). However, a recent study reviewed all research on the achievement outcomes of four commonly used approaches to improving the reading programs for secondary level students before it formulated a best evidence synthesis on reading programs and their effectiveness (Slavin, Cheung, Groff, & Lake, 2008). This research was vital to forging a new understanding of the effectiveness of READ 180 because it set the parameters on the necessary elements for successful high school reading interventions.

### **Purpose Statement**

The purpose of this qualitative case study was to explore what impact, if any, the READ 180 program had upon the affective and cognitive reading skills of ninth grade students at Pacific High School. READ 180 was defined as an intensive reading intervention program that consisted of 90 minute daily instruction emphasizing the



improvement of reading comprehension skills through structured curriculum, effective teaching strategies, and the use of various course specific materials and resources.

This study considered the curricular design of READ 180 as well as the varying student factors, both current and historical, that influenced their participation in this course. With the advent of NCLB (2001) and its emphasis on test scores, reading interventions often strived to meet the goal of improving literacy as measured by testing. Therefore, NCLB was addressed in this study because it was regarded by some educators as being inflexible due to its emphasis on test scores (Gay, 2007; McKim, 2007). However, this was one reason why schools, especially those designated as Title I, adopted a variety of reading intervention programs by making a concerted effort to raise the test scores of their most reading deficient students. This study was designed to explore the level of effectiveness from each component of the READ 180 program which helped determine what the program did well and what it lacked in regard to meeting the needs of whole classes and individual students.

Cramer (1994) suggested the problem in the United States was not literacy but rather aliteracy, that is people who could read but chose not to which in turn perpetuated their mediocrity in reading. He further asserted reading skills and interest in reading were interdependent factors for reading success, and for reading interventions to be effective students had to be inspired to read which equated to a change in their reading behavior. To improve literacy, reading intervention programs such as READ 180 were assessed so that students received the best reading instruction not only for testing and academic purposes but for personal enrichment as well.

## Research Questions

The purpose of this qualitative case study was to explore what impact, if any, the READ 180 program had on the affective and cognitive reading skills of ninth grade students at Pacific High School. The following questions guided this study:

1. *What, if any, impact did the READ 180 program have on the affective and cognitive reading skills of at-risk secondary level readers?* READ 180 was designed to accelerate the reading skills of deficient readers through a two-pronged approach that stimulated reading interest while improving various forms of reading comprehension including prediction, vocabulary, patterns of organization, and cause/effect. This study assessed what effect, if any, was occurring with each student through collected interviews, documents, and observations.
2. *What specific teaching strategies from the READ 180 program were perceived to have had the greatest impact with improving students' reading comprehension?* The effective components of READ 180, as assessed through the prescriptive teaching manual and corresponding observations located in the appendix, were evaluated in correlation with the primary comprehension focus points of the program which included vocabulary instruction, main idea, reaction, and finding supporting facts. Bloom's Taxonomy was a central factor in determining the amount and levels of reading comprehension attained by the students. Also, a central point of this study was to discover if students were progressing at an accelerated rate with the different types of questions that demonstrated their ability to think critically. This information was attained through student

responses to various documents used within the READ 180 program.

3. *How, if at all, were students' attitudes toward reading affected by READ 180?*

Students may improve their ability to read without improving their desire to read.

The READ 180 reading library and the READ 180 computer software, both of which were designed to motivate reading through high interest materials, were evaluated for their effectiveness.

4. *How, if at all, did READ 180 improve the comprehensive reading skills*

*(comprehension, vocabulary, application of reading strategies) of at-risk high*

*school freshmen?* The seven comprehensive reading strategies of successful readers were studied in relation to the READ 180 program through observations and student documents. These seven strategies were activating schema, visualizing, questioning, inferring, synthesizing, determining importance, and monitoring for meaning.

### **Significance of the Study**

READ 180 was used in grades four through nine throughout the school district where the study was conducted although administration at the site and district levels had vague answers as to the efficacy of the program or consistent data that demonstrated the exact results of the program upon the students' reading skills or reading habits. READ 180 was an expensive program in relation to time and money, two critical factors used to assess the relevance of specific curriculum in today's educational realm. Therefore, it was imperative any prescriptive reading programs be thoroughly assessed to determine their relevancy to state learning standards and to student learning outcomes.

Scholastic Research (2008), the publisher of READ 180, conducted one of three recognized studies on the effect of READ 180 with high school students. The quasi-experiment examined the effects of READ 180 with sixth, seventh, and ninth graders who scored basic or below-basic basic on the previous year's state mandated reading test then used a comparison group based on demographics and reading scores. The other two relevant READ 180 studies also focused on general reading comprehension improvement. Consequently, the results of this case study provided a separate independent analysis outside of Scholastic to help the district determine if the program was effective or in need of such supplemental treatments as differentiated instruction or RTI.

In addition, there were no studies on the specific cognitive skills (in relation to Bloom's Taxonomy) attained with secondary level reading intervention programs such as READ 180. Furthermore, much of the research conducted on the effectiveness of READ 180 at all academic levels was initiated or sponsored by Scholastic Incorporated. Moreover, Vaughn and Fletcher (2010) declared a need for more research on interventions for students at all grade levels that were deemed inadequate responders to grade level material. Slavin et al. (2008) also noted more studies were needed to fill the void of research on secondary level reading intervention programs due to the influx of struggling second language learners throughout the United States.

This qualitative case study allowed for an independent analysis of READ 180 that could be used for other school districts debating the merits of this intervention program. On a larger scale, this study was necessary due to the increased scrutiny created by the NCLB mandate that required every United States student to be reading proficiently by

2014. Schools that failed to reach this standard faced sanctions that may have profound effects on teachers and students alike. As a result, many public schools utilized intervention programs such as READ 180 to reach their lowest performing students in an effort to improve literacy skills and to meet the required academic yearly progress (AYP) and academic progress index (API) scores necessary to avoid federal and state sanctions. Therefore, READ 180 and other intervention programs became critical to the success of both struggling students and to the schools in which they resided.

### **Delimitations**

Delimitations included a focus specifically on ninth grade students over a 16 week period in two classes conducted from 12:18 p.m. to 2:20 p.m. The location of the school site where the interviews and observations were conducted is one of 22 in the school district that utilized the READ 180 program. Due to the limited number of READ 180 classes on the campus, there was a reasonable possibility that the results of this qualitative case study were representative of the larger READ 180 population throughout the school site and the school district. The sample size of 21 comprised the majority of the two READ 180 classes, but four students elected not to participate in the study.

### **Limitations**

The first limitation was students may not have received the consistent treatments of READ 180 program because of tardiness, absences, suspensions, or participation. A second limitation involved the school site where the research was conducted. There were approximately 80 students in READ 180, yet other eligible students received no literacy intervention for grades 10 through 12 due to limited resources. A third limitation existed because of the variety of learning styles, abilities, and reading levels amongst students in

READ 180 which included special education students (SE), and English language learners (ELLs), and misplaced students. Fourth, the READ 180 program emphasized couches and a quiet area be designated for the sustained silent reading portion of the program. This aspect of the program was logistically impossible for the classroom used for this study because of fire codes and district protocol. The effects of students reading quietly at their desks amongst other students may have affected their level of reading comfort and their reading comprehension, two things assessed in the study. Fifth, teacher fidelity with the READ 180 program was limited to the time observing students. A final limitation was that the study was conducted at one school site with one teacher implementing the READ 180 program.

### **Research Plan**

This research was a qualitative case study that examined three primary segments (sustained silent reading, guided practice, and interactive computer coursework) of the prescriptive READ 180 reading intervention program and its influence on the affective and cognitive skills of at-risk ninth grade students. A qualitative study offered a more in-depth and comprehensive assessment through “a diverse array of data collection materials” of the multiple factors, both human and scientific, that influenced the effectiveness of a reading intervention program such as READ 180 (Creswell, 2007, p. 244). Qualitative research, specifically a case study, allowed for multiple levels of studying the complex issue of why older students were still in need of reading support and how effective the reading support they received in relation to their affective and cognitive skills. As Yin (2008) noted, a central component of a case study was answering the questions of “how” or “why”. This study also followed Yin’s (2008) five

components of effective case study research design: the study's questions, its propositions, the units of analysis, the logic linking the data to the propositions, and the criteria for interpreting the findings.

For the purpose of this study, Vygotsky's (1978) Zone of Proximal Development theory, Bloom's (1984) Taxonomy of Educational Objectives, and Bandura's (1989) Social Cognitive Theory offered the theoretical framework for the problems examined in this investigation. In relation to the multiple research questions, Vygotsky and Bloom's theories established the connection students maintained with the READ 180 program and its resulting effects on their cognitive reading skills. Bandura's social learning theory established the effect of READ 180 on the students' motivation to read.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Introduction**

This chapter focused on the theoretical framework of the study and a review of relevant literature. The theoretical framework for this study utilized the following concepts and theories: (a) cognitive development, (b) zone of proximal development, and (c) social learning. Each theory was the foundation for the literature reviewed in this chapter. In addition, a literature review of READ 180 was addressed after the theoretical framework.

### **Theoretical Framework**

There were three concepts and theories that guided this case study based on the work of Bloom, Vygotsky, and Bandura. The students in this study had a range of needs and abilities, yet they were placed in a reading intervention program that attempted to use a one-size-fits all approach to meet all of their different needs. As a result, the research of Benjamin Bloom (1984) and Lev Vygotsky (1978) became relevant. Bloom developed a learning taxonomy that placed the level of learning and understanding at different tiers (Marzano & Kendall, 2008). These tiers of learning were applied to the READ 180 program to determine the levels of questioning utilized by the program and their corresponding influence on cognitive reading skills.

One of the focus points for this study was whether or not students showed growth in their reading comprehension skills which was only possible if they were in their Zone of Proximal Development (ZPD). Vygotsky (1978) developed the ZPD which was the difference between what a student can do without assistance and what they can do with assistance (Mooney, 2000). If either of these two elements are off then they are out of



their ZPD and learning becomes rote or non-existent. Therefore, the ZPD theory established the connection students maintained with the READ 180 program and its resulting effects on their cognitive reading skills. Taken as a whole, Bloom and Vygotsky's concepts gave structure to teaching strategies and also affected students' abilities to comprehend different teaching techniques in a measurable way.

The effect of READ 180 on the students' motivation to read was grounded on Bandura's social learning theory. According to Bandura (1989), the social cognitive theory was based on human motivation and action both of which are extensively regulated by forethought. The factors that constructed this theory were based on self-efficacy and outcome expectancies. In turn, these factors influenced goals and perceived impediments that may or may not result in behavioral change or learning taking place.

The epistemology for this research was founded on Confucius (500 B.C.) and his ideology of synchronicity between the heart and mind when discovering knowledge, a direct correlation to the affective and cognitive aspects of this study. Confucius also advocated for the cultivation of the person through the mind for the betterment of society which tied directly to READ 180 and interventions designed to accelerate deficient students in preparation for lifelong learning.

## **Review of the Literature**

### **Cognitive Learning**

The development of cognitive skills within the READ 180 program was assessed to determine if students were progressing along five of the six tiers of Bloom's Taxonomy. Bloom's (1956) six stages of cognitive development, which were placed in a hierarchical sequence of each step being essential for the next, were: (a) knowledge, (b)

comprehension, (c) application, (d) analysis, (e) synthesis, and (f) evaluation. Bloom stated that knowledge required fact-finding skills, comprehension entailed students recognizing relationships, application necessitated the transfer of information, analysis involved the restructuring of information, synthesis required designing new knowledge, and evaluation involved the validation of one's newly created judgments. Nevertheless, Bloom thought most students could learn the higher level skills on his taxonomy (Tanner & Tanner, 1990). For example, Bitter, O'Day, Gubbins, and Socias (2009) found cognitive engagement with literacy instruction was maximized for all students through class discussions and writing about text that incorporated higher level questioning; it was also accomplished by creating independent active readers who used comprehension strategies while reading standards-based curriculum.

Bowman (1996) believed questions on the lower end of Bloom's taxonomy demonstrated students reading strengths and weaknesses while the higher order questions demonstrated their critical thinking skills, problem solving abilities, and motivation to read. However, higher order thinking skills needed additional working memory. In turn, Fletcher, et al. (2011) found a student's cognitive strengths and weaknesses could be assessed in relation to reading comprehension and reading fluency. Fletcher, et al. also found reading interventions were less effective in developing vocabulary and word discrimination with students having behavioral problems and lower cognitive response skills. The design of the READ 180 program was analyzed for its strengths in developing the cognitive learning of students.

Mackworth's (1972) research focused on seven cognitive skills that children used to acquire knowledge in the reading process. He discovered that successful reading

stemmed from such cognitive skills as attention, memory, reasoning, and visual processing. For example, word prediction, which is derived from reasoning, was a necessary component to effective reading. He also noted that the primary reading skill of comprehension was influenced most by recalling word meanings, recognition of the author's purpose, drawing inferences, and proper eye movement. As a result, Mackworth believed cognitive skills needed to be examined when understanding the effectiveness of reading intervention programs.

Veeravagu, Muthusamy, Marimuthu, and Subrayan (2010) found "the level of questions designed according to Bloom's Taxonomy influenced the students' performance in answering comprehension questions" which indicated the importance of structuring a reading program that challenged students to think critically (p. 205). They also argued that assessments should evaluate the depth and breadth of what students learned from their reading rather than just the factual recall of information. As a result, Veeravagu et. al. (2010) advocated for the implementation of reading strategies that regularly included higher order thinking skills such as inferring, predicting, and drawing conclusions.

In opposition to Veeravagu, Booker (2007) argued that Bloom's taxonomy had diminished the importance of basic comprehension which affected students' abilities to properly use higher order thinking skills. He also contended that Bloom wanted his taxonomy to be used in conjunction with the affective and psychomotor domains, and that the taxonomy was intended for college students. However, Goldberg and Harvey (1983) reported for the National Commission on Excellence in Education and found that public schools needed to stress reading skills that centered on analysis, drawing

conclusions, and problem solving which resulted in the current educational objective of improving the critical thinking skills with a focus on Bloom's taxonomy.

Critical thinking skills are often a byproduct of effective teaching strategies, and Bloom's Taxonomy is one method teachers have used to classify the levels of critical thinking associated with their teaching strategies. Bloom divided the learning process into three domains, the affective, cognitive, and the psychomotor. Anderson and Krathwohl (2001) further defined Bloom's taxonomy as being organized "from simple to complex and from concrete to abstract, providing a framework of categories into which one may classify educational goals" (p. 37). Furthermore, they stated that Bloom's taxonomy helped determine the congruence of goals, classroom activities and assessments, and provided a view of the range of possible educational goals against which the limited breadth and depth of any particular educational curriculum was contrasted. In doing so, educators became focused on teaching to all three domains and learners corresponding ZPD levels which enhanced the learning experience of each student.

**Curriculum design and structure of reading programs.** Calhoon, Sandow, and Hunter's (2010) study explored the arrangement and the implementation of successful methods in teaching reading skills in corrective reading programs. After debating if there "could be a better way to design remedial reading programs to maximize middle school students with reading disabilities' response to treatment," the authors found adding specific interventions tailored to a student's need, as opposed to general group interventions, increased reading comprehension (p. 57). The study also found an

extended duration of instruction, in this case 45 minute daily sessions for 26 weeks, was an important factor in helping deficient readers.

Properly assessing the viability of a reading program was essential to this study. A study administered by Phillips, Norris, Smith, Buker, and Kasper (2009) was designed to identify and quantify assessment techniques, evaluate the nature and quality of the assessments, and determine the extent to which reading intervention programs helped promote literacy. The assessments, which came in six formats and used a dozen assessment tools to engage students, showed some weak tendencies by grade and few of the assessments focused on the specificities of learning to read texts. READ 180 was designed to remedy this problem through its comprehensive approach to meet the needs of multiple types of learners (Scholastic, 2011). However, there were other variables considered as interventions were more effective when supported by other school curriculum, and teacher fidelity with these interventions was improved when there was administrative support, a positive school environment, and strong communication within the school community (Stein, et al., 2008).

According to Chard, Vaughn, and Tyler (2002), effective reading interventions also focused on building fluency using an explicit model, giving students multiple opportunities to repeatedly read familiar text independently with corrective feedback, and instituting performance criteria while increasing text difficulty. In addition, Schumaker et al. (2006) stated students who learned specific paraphrasing and decoding strategies, a component of READ 180, produced significantly higher standardized test scores, which READ 180 implied was a byproduct of using their program. In turn, general classroom instruction typically followed a sequential pedagogical process of front-loading,

activating schema, modeling, monitoring, and assessing student achievement on a regular basis. READ 180 was structured to follow this pedagogical process in accordance with most state run teaching programs.

The structure of business in the United States has valued critical thinking and problem solving skills, and Willingham (2007) noted that complex, integrated knowledge derived from problem solving was the definitive goal of curriculum design so as to prepare students appropriately for the world. Therefore, a well-designed curriculum offered all students opportunities to learn. This universal access began with preparation of core texts lessons that focused on what was to be learned in the classroom (Vacca & Vacca, 1996). Montgomery (2005) furthered this point with the premise that a strong curriculum offered numerous opportunities for reading, writing, and critical thinking through individual expression.

A teacher and the curriculum they implemented should have created a meaningful learning environment that maximized student output. Clements (2007) argued that, as a whole, curricular goals should focus on whether the learning goals are important and whether the learning material has been documented as effective. In turn, instructional strategies should have followed any number of conceptual frameworks including Gardner's Multiple Intelligences. Armstrong (2009) described Gardner's multiple intelligences as being eight different intelligences humans excel in individually. A teacher who individualized instruction to meet any of these eight intelligences (linguistic, logical/mathematical, spatial, kinesthetic, musical, interpersonal, intrapersonal, and naturalistic) enabled a student to learn in methods that were harmonious with their individual traits, learning styles, and minds. For example, Ysseldyke, Burns, Scholin,

and Parker (2010) noted that modified instruction based on data, also defined as progress monitoring, to meet the specific needs of struggling readers increased student mastery. Furthermore, they discovered that as a “student’s unique needs increased, the levels of precision, frequency, and sensitivity of assessment correspondingly increased” (p. 58). Burns (2007) stated that optimal learning is derived from chunking and sequencing of material, depending on individual needs, which was supportive of both Bloom’s taxonomy and Vygotsky’s ZPD.

Slavin, Cheung, Groff, and Lake (2008) reviewed the achievement outcomes of four approaches (reading curricula, mixed-method models, computer assisted instruction, and instructional process programs) to improve the reading skills of secondary level students. The criteria for inclusion in the study was use of control groups (randomized or matched), studies at least 12 weeks long, and use of independent measures. The review found reading programs that changed daily teaching practices had substantially greater research support than those limited to technology or curriculum alone which was indicative of their importance. Positive achievement was achieved for instructional process programs using both cooperative learning and mixed-method programs.

The specific needs of older struggling readers have been immense. According to Wanzek, Wexler, Vaughn, and Ciullo (2010) secondary level students with poor reading scores improved their reading ability with explicit instruction that emphasized a wide variety of vocabulary and comprehension skills, yet secondary level teachers faced numerous issues with struggling readers because they were often disengaged due to numerous literacy needs that were compounded through the years. Yet Papalewis (2004) identified five traits of successful reading interventions for secondary level students that

accelerated their reading skills: (a) assessment of individual student needs; (b) use of appropriate instructional materials; (c) use of specific accelerative teaching strategies; (d) creation of fluent responders; and (e) recognition of student success. She further argued the focus on intervention strategies as opposed to remedial teaching was most beneficial for older, struggling readers because generalized reading workbooks taught by paraprofessionals were avoided and, instead, individualized instruction was employed from trained teachers that used research-based strategies.

**Teaching and learning.** Teachers were the most critical element in the success of student achievement. For example, most educators have tracked students' progress as content was learned in order to make them successful with subject matter. More specifically, they focused on "learning goals, attended to the integrity of the subject matter, managed individual student behavior and maintained a productive learning environment, posed strategically targeted questions, interpreted students' work, crafted responses, assessed, and steered all of this toward each students' growth (Ball & Forzani, 2009, p. 501).

Gagne (1985) noted that teachers have also implemented instructional tactics to strengthen the learning dynamics within a classroom. Both formal and informal learning has emanated from the particular environments that teachers have created, and these were highly influenced by the curriculum and strategies utilized. These were specific, and for the most part, simple actions taken by teachers within the confines of particular teaching strategies. For instance, lecturing created a tightly structured learning environment where students were expected to listen, observe, and take notes. In addition, asking questions, checking for student understanding, providing examples or visual representations, or



examining both sides of an argument were examples of instructional tactics that aided students in the comprehension of curriculum. Gagne asserted that cooperative learning groups created an optimal environment where students were actively engaged and in charge of their own interactions. Burke (2003) stated effective teaching consisted of construction, occupation, negotiation, and conversation, and as a result, new knowledge was created and more knowledge was desired.

A teacher's classroom management was also indicative of the level of learning that occurred in a course. Student engagement followed proper classroom management and was a prerequisite for motivation. Emmer (1994) stated a positive classroom environment established student behavior, and this was accomplished through (a) arrangement of physical space; (b) choosing rules and procedures; (c) planning and conducting appropriate instruction; (d) maintaining desired student behaviors while addressing problem behaviors; (e) using excellent communication skills; and (f) managing students with special needs.

Al Otaiba and Fuchs (2006) researched the characteristics of children who were nonresponsive to early literacy interventions. Results indicated a well-implemented, systematic, explicit, peer-mediated intervention, targeting phonological and alphabetic awareness and supplemented by teacher-directed phonological awareness training substantially reduced the number of students at risk for reading problems. They also found that children with low vocabulary, low verbal ability, or low IQ were more likely to be non-responders to reading interventions. The implication was students with severe literacy issues early in life struggled with their reading skills for years or longer.

Working memory was analyzed in numerous educational studies because of its connection to comprehension and reasoning. Carretti, Borella, Cornoldi, and De Beni (2009) examined the relevance of several working memory measures and discovered memory tasks were demanding in relation to attention control, a much needed skill for reading. Memory also required verbal information processing, a skill that best distinguished poor and good comprehenders. This suggested the analytical processing and memory skills of both high and low level readers was a foundational element in understanding the placement of students in reading intervention programs.

The findings of Hall's (2009) case study indicated that students became marginalized as readers by their teachers due to their failure to exhibit ideal reading behaviors. The teacher in his study defined an active reader as someone who constantly monitored their comprehension, assessed their learning, and applied comprehension strategies as needed; failure to do so indicated a poor reader. Furthermore, Hall's research found students who marginalized themselves as struggling readers gave little effort to the reading process which suggested the role of identity as being critical to the success of a student's reading abilities. The research recommended teachers explore their own literacy assumptions before applying a variety of theories in relation to their reading construction. Stein et al. (2008) supported Hall's findings when they indicated that the most important factor in a student's success with a reading program was the teacher working closely with them to achieve success in spite of poor reading attitudes and habits.

In relation to the process of reading, Huslander et al. (2004) compared visual processing against auditory skills to demonstrate the distinction between the two in

relation to developing literacy skills. Results indicated a reading-disabled subgroup was distinctly different than a normal-reading subgroup for auditory tasks. According to the study, the implication was that a student who received auditory reading from a teacher may retain certain aspects of literacy such as memory recall yet may not have had a visual connection to the text thereby leaving their reading skills inactive.

**Teacher fidelity.** Hall's (2009) year-long case study examined the transactions between a teacher and a student in relation to the reading-task demands of their classroom and discovered that reading practices ignoring student identity were likely to have a limited impact on struggling readers' literacy development. The researcher advocated for teachers finding new ways to identify and be responsive to the various student identities in the classroom before adapting the reading strategies and curriculum accordingly. Similarly, READ 180's learning library had various genres and learning levels designed to meet the needs of all students placed in its program.

Thomas (2005) investigated teacher fidelity in relation to the success of the READ 180 program with at-risk learners' reading success and motivation to read further. Using a mixed methods approach of quantitative and qualitative analysis, he found a high level of teacher fidelity resulted in gains on students' reading achievement and concluded that teacher beliefs influenced the implementation and effectiveness of READ 180 on students' success with reading. Ultimately, the characteristics of effective teachers included good communication skills, knowledge of their content area teaching, appropriate student assessment, and an ability to model teaching strategies that met student needs (Polk, 2006).

**State learning standards.** Reading standards provided a framework for teachers and students to follow. These standards allowed states to monitor and assess the progress of each student through such methods as the Standardized Testing and Reporting Program (STAR) and the high school exit exam. In California, where this study was conducted, the State Board of Education issued its most recent standards in 2009 which required all students to be reading proficiently, meaning at grade level, by 2014. Students who failed to meet these standards as evidenced through the state mandated STAR test were relegated to a basic reading status meaning that they were at least one full year below grade level with their reading skills.

The ninth grade California reading standards were: (a) Students applied their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately; (b) Students identified and used the literal and figurative meanings of words; (c) Students read and understood grade-level appropriate material; (d) Students analyzed the organizational patterns, arguments, and positions of the writer; (e) Students read two million words annually on their own, including a wide variety of classic and contemporary literature as well as magazines, newspapers, and online information; (f) Students understood structure, and comprehended, analyzed, and critiqued various reading materials; (g) Students read and responded to historically or culturally significant works of world literature, particularly American and British literature; (h) Students conducted in-depth analyses of recurrent patterns and themes (California Department of Education, 2009). READ 180 aligned with and supported each of these eight standards although the material and depth of content were below grade level.

Once the level of thinking was established for the curriculum, an educator had to consider the standards of learning required by the school while designing a course that maximized a child's development. One issue, according to Armstrong (2007), was that there was a dichotomy between schools current objectives and actual learning. Schools emphasized proficient test scores which inhibited natural development and real world learning. To counter this problem, Armstrong believed children needed to be educated through the different stages of their youth with curriculum that allowed for collaboration, multiple learning opportunities, and self-pacing. He surmised that current curriculum design promoted conformity and not individuality.

The heavy testing culture in United States public schools supported Armstrong's point that conformity was valued over individuality in regular curriculum (Moses & Nanna, 2007). Numerous studies countered the validity of having a test-based curriculum, chief among them Nichols and Berliner's (2008) research which concluded that over-testing had resulted in creating a larger number of reluctant learners. Furthermore, they argued that NCLB created a testing atmosphere to the detriment of learning, leading to such negative effects as a lack of motivation to learn, diminished creativity, teachers who marginalized their students, a narrowed curriculum, and students feeling defeated with poor scores on high stakes test.

Compounding the problem of over-testing was the disarray created when states had a disparity between their tests and state standards. Glidden and Hightower (2007) found 41 of 50 states did not have their standards aligned with the tests utilized to measure student growth which created numerous curriculum problems. They also revealed states that accurately aligned their standards with their assessment tests created a

rigorous and sequenced curriculum that resulted in higher student achievement.

Tankersley (2007) noted that state standards required curriculum to focus on critical thinking skills found in the upper tiers of Bloom's taxonomy. He concluded that a poorly designed curriculum not aligned with standards or state mandated tests resulted in problems such as vagueness of standards, repetition of material, and failure to maximize learning for each student.

**Technology in the classroom.** When technology was used as a tool to support students in performing authentic tasks, the students were in the position of defining their goals, making design decisions, and evaluating their progress. Technology also allowed students to be actively thinking about information, making choices, and executing skills versus typical teacher directed lessons (U.S. Department of Education, 2010). However, effective use of technology in public education required a plan that incorporated technology in a manner that supported the daily curriculum, ensured adequate resources for the plan, and fostered professional development and positive attitudes amongst the faculty (Hew & Brush, 2007).

Technology was prominent in education and in the READ 180 program, yet many teachers failed to fully utilize technology in their classrooms for various reasons. Brand (1997) stated teachers became technologically proficient with their classroom instruction through the following school-based solutions: (a) allotment of time for teachers to apply knowledge garnered from in-services to their instruction; (b) offering of flexible training with provisional support to teachers; (c) allowance of time for teachers to collaborate with technological developmental; (d) linking technology with educational objectives; and (e) sustainment of staff knowledge and development. Windschitl and Sahl (2002)

argued that teachers changed their instructional practices over time when they used technology, and the use of technology strengthened teachers' shift toward constructivist pedagogy. Pitcher, Martinez, Dicembre, Fewster, and McCormick (2010) stated the most important reading skill to be taught to the modern student was comprehension of expository material in before, during, and after reading sessions that incorporated the use of technology. In turn, READ 180 used various forms of technology throughout all aspects and stages of its program each of which required the READ 180 teacher to assess and adjust to students needs through the use of technology.

Stetter and Hughes (2010) reviewed and synthesized computer assisted instruction (CAI) from 1985-2009 in regard to its effects on the reading comprehension of struggling readers and students with learning disabilities. The review found web-linked tools that supported student meaning of text was positive while overall interventions were positive but inconsistent. They also established that refinement of high-quality instruction combined with reading comprehension strategies were needed before CAI was most effective and a transformative learning environment took place. READ 180, which had one third of its instructional time focused on interactive computer software, was designed to improve participants' comprehension skills in multiple areas.

READ 180 had a myriad of proven teaching strategies engrained in its program, many of them centered on computer based learning. Kennedy and Deshler (2010) found literacy based computer programs were effective with learning disabled students if they extended concepts learned from direct instruction, contained simplified graphics and text, and were grounded on learning theories. Another study also found that computer programs improved the test taking skills of learning disabled students (Lancaster,

Schumaker, Lancaster, & Deshler, 2009). However, technology hindered classroom instruction because of a lack of resources, time, and technical or academic support (Ertmer, et al., 2009). As a result, one study reported that reading comprehension skills of struggling readers were not advanced through computer assisted teaching, only students reading rates were improved (Sorrell, Bell, & McCallum, 2007).

*Summary of bloom's taxonomy research.* Bloom's six stages of cognitive development represented a hierarchical sequence of depth of knowledge. He noted that most students could learn the higher level skills with proper teaching. Bloom also divided the learning process into three domains, the affective, the cognitive, and the psychomotor to ensure the whole education of the student was reached. In support of Bloom, Papalewis identified five traits of successful reading interventions employed for secondary level students that accelerated deficient readers' literacy skills. Research in other domains of education such as teaching strategies, teacher fidelity, state learning standards, and use of technology have employed Bloom's taxonomy as a foundation to understand the depth of comprehension students attained with learning objectives.

### **Zone of Proximal Development**

Vygotsky (1978) developed the zone of proximal development (ZPD) to describe the work a student could complete independently and what they could complete with the assistance of adults or more-skilled peers. The lower limit of the ZPD was the level of skill reached by the student working independently while the upper limit of the ZPD was the level of achievement the student could reach with the guidance a teacher or peer. If a student worked outside their zone of development the result was confusion and failure. The ZPD, which captured the child's cognitive skills that were in the process of maturing,



required scaffolding or changing the level of support, for the concepts to be learned. Over the course of a teaching session, a more-skilled instructor adjusted the amount of guidance to fit the child's current performance. Vygotsky also stated that dialogue was an important tool in ZPD. In dialogue, a child's unsystematic, disorganized, and spontaneous concepts were met with the more systematic, logical, and rational concepts from the skilled helper.

ZPD was based on the range of potential each person had for learning shaped by the social environment in which it took place. The ZPD had powerful methodological significance for educational researchers in that the mind was not fixed in its capacity but rather provided a range of potential. The mind, therefore, was both elastic in terms of the different directions cognitive growth took depending on the socio-cultural environment in which it developed, and unbounded in terms of its potential for growth. Vygotsky (1978) argued that ideas were created from environmentally produced sensations, and that learning was "an external process not actively involved in development; it merely utilized the achievements of development rather than providing an impetus for modifying its course" (p. 79).

The ZPD was premised on the theory that student learning accelerates with scaffolding or guided teaching practices, yet ZPD could be enhanced with student-to-student interactions that created internalization of the learning material (Guk & Kellogg, 2007). The zone of proximal development was applied by the teacher in five sequential steps: (a) the students' ability levels were ascertained; (b) scaffolding was provided to support new learning; (c) modeling occurred with gradual withdrawing of support; (d) students demonstrated knowledge and ability to master the desired task; (e) students

rehearsed the tasks to automaticity and independence (Vygotsky, 1978). READ 180 was founded on direct teaching instruction and working within the confines of students' abilities or ZPD. In relation to literacy, Burns and Helman (2009, stated, "As language proficiency increased, their acquisition rate increased as well" (p. 227). There were two areas to be analyzed in relation to ZPD, the time variance with reading interventions and the student response to interventions.

Levykh (2008) expanded on Vygotsky's ZPD when he emphasized a connection between teacher and student in a stimulating and caring environment, two elements he believed to be critical to human learning and development. Levykh's ZPD was constructed on the principles of affective and cognitive learning through social, cultural, and historical means. It focused on cognitive, social, and cultural parameters while adding the dimension of emotional collaboration and cooperation between teacher and student in an ongoing mediation and maintenance of the ZPD. Levykh's adjusted ZPD was designed to create new psychological formations in the transition of a student from one developmental level to the next. This modernized ZPD, which was only possible through a nurturing and supportive learning environment, incorporated the social and cultural influences on affective and cognitive learning. Almala (2006) furthered this point by stressing that "learning was a social activity in which learners interact and collaborate with peers and content experts to construct knowledge and arrive at plausible solutions" (p. 38).

The zone of actual development (ZAD) was a reference to a student's current level of learning. Shabani, Khatib, and Ebadi (2010) believed Vygotsky's ZPD limited scaffolding and chose instead to emphasize dynamic assessment as a stronger

measurement. Their research indicated that when a learner moved from the ZAD to the ZPD a cognitive change took place, the experience was internalized, and mental development was attained. The researchers noted, “From the affective perspective the learner should avoid the extremes of being bored, confused, and frustrated. From the cognitive perspective, material should not be too difficult or too easy” (p. 241). This supported both the application of ZPD to a teacher’s pedagogy and the fidelity of their instruction.

**Time variance with interventions.** A study by Wanzek and Vaughn (2008) discovered increasing the amount of time given to reading intervention groups with previous low response to interventions had a significant effect on their reading comprehension scores. An important factor was tutors receiving 15 hours of mandatory training followed by each intervention utilizing a systematic five-step approach. Students who received a double-dose treatment demonstrated gains in word identification, word attack, and oral reading fluency, and also gained half of a standard deviation point on overall reading comprehension. Furthermore, the researchers advocated for effective interventions adapted to specific student needs who demonstrate low response to current intervention strategies. Similarly, READ 180 required teacher training prior to implementation and attempted to adjust to the literacy needs of students during small group instruction.

Harn, Linan-Thompson, and Roberts (2008) focused on intensifying instructional time with interventions from 30 to 60 minutes on early literacy skills and found, after homogenous grouping based on skills, students in the more intense intervention outperformed students in the less intense intervention on six of seven reading

comprehension measures. Lyon and Moats (1997) noted the intensity and duration of an intervention should also vary based on student needs. They further stated improvement in one area of reading may not produce improvements in other reading skills; the implications being that struggling readers could become even more disengaged with the reading process or continue to lose valuable time in attempting to correct their reading problems.

**Response to intervention.** According to Marston (2005), response to intervention (RTI) was divided into three tiers with each focused on improving reading acquisition. Tier 1 consisted of 90 minute whole class instruction and was based on teaching a multitude of skills including fluency, comprehension and vocabulary. Tier 2 RTI was for 30 minutes in small groups and was for Tier 1 non-responders who needed additional instruction with specific grade-level benchmarks outside their core reading program. Tier 3 RTI was limited to tier 2 non-responders and was taught in groups of three or less with two 30 minute sessions and focused exclusively on individualized student needs. READ 180 was primarily a tier 2 intervention with some tier 1 elements.

Denton, Wexler, Vaughn, and Bryan (2008) investigated the effectiveness of a multi-component reading intervention that was implemented with middle school students who had severe reading problems. In their study, students did not demonstrate significantly higher outcomes in word recognition, comprehension, or fluency than students who received typical instruction. This led the researchers to conclude that students with the most severe reading issues, particularly those who are second language learners and those with limited oral vocabularies, may require interventions of considerably greater intensity. The students placed in the READ 180 program at the site

of this study were predominantly second language learners with varying degrees of reading issues including nystagmus and dyslexia meaning they had multiple problems with their reading skills.

A second study investigated the best approach to tier two (intensive small group instruction) RTI (Fuchs, Compton, Fuchs, Bryant, & Davis, 2008). Three questions were addressed in relation to the RTI: (a) Who should participate? (b) What instruction should be conducted to decrease the prevalence of reading disabilities? (c) How should responsiveness and non-responsiveness be defined? The researchers advocated that students should be participants in second-tier RTI if they met the issues with the following conditions: sound matching, rapid digit naming, oral vocabulary, or fluency with word identification. The researchers maintained the premise that a thorough assessment and identification process with reliable predictive validity enhances the effectiveness and efficiency of early interventions. The study concluded that students in the secondary intervention, in this case tutoring, out-performed controls on both a progress monitoring measure and several standardized reading tests. They further noted a strong need for an empirically-based consensus about what RTI methods were most useful and such consensus should lead to more meaningful and consistent reading disability designations.

Kimmel's (2008) research indicated that multiple factors influence the success of RTI, namely implementing an RTI model with analogous components consisting of three-tiered intervention, assessment testing, and research based curriculum. She concluded that successful RTI implementation must include teacher buy-in, provide professional development, and be established and maintained over a five year timeline.

In doing so, RTI enhanced instruction and closed the achievement gap of struggling readers.

Struggling readers at the middle and secondary level have had a myriad of reading issues that include problems with word recognition and higher order thinking skills, and these academic issues become compounded with each passing year resulting in the need for contextualized learning in a motivating, peer accepted format (Fuchs, Fuchs, & Compton, 2010). Expanding on the specifics of reading interventions for secondary students, Vaughn et al. (2010) found that reading interventions limited to 50 minutes per day had little effect on older students from high-poverty areas. They found the ideal intervention model to consist of more time, meaning multiple years, focused on specific strategies in small groups that met individual students' needs. Vaughn et al. noted that these students needed specific interventions focused on concepts, vocabulary, prior knowledge, and critical thinking. In a separate study, Vaughn and Fletcher (2010) believed that older students with reading problems also had attention issues and language impairment, among other factors, which required high-intensity, student specific interventions.

Wanzek et al. (2011) acknowledged that three practices most beneficial to older struggling readers were direct and explicit comprehension instruction, precise vocabulary instruction, and concentrated individualized interventions given by trained specialists. Even so, at the conclusion of the intervention many of the students continued to lack basic reading skills which pushed the researchers to suggest even more individualized interventions in groups smaller than the 10 to 15 participants used in this research.

Linan-Thompson, Cirino, and Vaughn's (2007) study used RTI, focusing on decoding, fluency, and comprehension with ELL students for 50 minutes a day, five days a week, for one academic year. The 142 participants from four bilingual schools in Texas received all RTI in English with results indicating RTI success for one full year after the intervention which lends support to interventions that contained depth in time both daily and over many months.

One study explored the effect of fluency building on the growth of young readers who had reading difficulties and challenging behavior patterns. Oakes, Mathur, and Lane (2010) identified positive results for each participant, and two of the behavioral challenged students responded at greater rates as compared to students with reading difficulties alone. In addition, the methods building fluency approach increased the rate at which students applied accurate reading skills. The results also indicated specific students benefited from a multi-layered intervention that attacked both behavioral and academic issues.

Powell et al. (2009) researched the effect of fact retrieval tutoring among students with math difficulties with and without reading difficulties. The sample scored in the lowest 25<sup>th</sup> percentile on the Wide Range Achievement Test (WRAT) before tutoring. The math deficient reading deficient students demonstrated no significant differences among tutoring conditions which indicated that wide ranging academic difficulties required numerous interventions. However, the experimental group increased the number of facts recalled from memory by 73% from pre test to post measures which indicated comprehension strategies taught across subject matter areas were beneficial.

A recent study conducted by a group of renowned literacy researchers examined older students with reading difficulties and their response to RTI (Vaughn, et al., 2008). The study focused on the efficacy of an RTI model that included universal screening, progress monitoring, and multi-tiered instructional service delivery. Evidence from the RTI study suggested older students who exhibited deficits in decoding and fluency benefited from receiving instruction in the basic elements of word reading, regardless of their age. The study also found individualized interventions with older students may be necessary because the range of reading issues varied based on their learning needs, the reasons for their reading difficulties, and the gap between their performance and grade-level standards. This was research that was in direct opposition to the structure of the READ 180 program.

Glenberg, Brown, and Levin (2007) hypothesized that the manipulation of objects enhanced text memory and comprehension skills with small reading groups. The data found physical manipulation of materials relating to reading had a positive effect on students' reading performance when executed in small groups. One limitation was the time on task differences which adversely affected the strength of this type of intervention. The study's findings were consistent with many embodied theories of cognition where "words and phrases get their meanings from the perceptual properties and activities performed on corresponding objects," a testament to the relationship between visual cues and reading comprehension (p.390).

One aspect of READ 180 and other reading intervention programs was the recitation of ideas to build fluency and comprehension. Huang, Nelson, and Nelson (2008) combined multiple effective practices into a simple systematic reading fluency



instructional program for struggling readers focusing on 70% accuracy over a 10 week intervention period. The findings indicated sight word knowledge contributed to both fluency and comprehension when incorporated through a consistent method that tutors could follow. The effect of one intervention (RAP - read, ask, paraphrase) on middle school students with disparate reading comprehension and fluency scores demonstrated improved reading skills although the extensive one-on-one instruction limited its feasibility (Hagaman and Reid, 2008). In addition, the RAP strategy offered limited critical thinking skills, as referred to Bloom's Taxonomy, but did demonstrate explicit instruction with comprehension skills improved reading comprehension.

**English language learners.** Ogle and Correa-Kovtun (2010) stressed the importance of teaching functional reading skills to English language learners (ELLs) because they comprised 10% of all public school students. In addition, ELL's also generally lacked the reading strategies needed for content area success as indicated by their scores which were below the 25<sup>th</sup> percentile on state language tests. Scores in this range resulted in mandatory reading interventions. Neugebauer (2008) stated the major obstruction to improving the reading skills of ELLs was (a) inconsistent identification; (b) proper longitudinal assessment of individual students; (c) improper teaching; (d) rigid academic programs; and (d) limited use of research based teaching strategies. They argued rectifying each of these problems at the local, state, and national levels would have a dramatic impact on the academic progress of ELLs.

Teale's (2009) research indicated that struggling readers benefited most from ongoing assessments, explicit daily learning instructions, and active participation in a literacy program focused on fluency, comprehension, vocabulary, writing, and word

recognition. Each of these components was found in the READ 180 program. Teale argued the struggle for ELLs was learning such skills at a pace congruent with native speaking students. He found this gap in literacy for ELLs could be closed with instruction that extended learning concepts, multi-layered vocabulary teaching that clarified complicated words, implementation of summarizing skills with a variety of texts, extended learning time, and peer collaboration.

The findings from a Linan-Thompson et al. (2006) study indicated ELL students at risk for reading deficiencies should be taught explicit, systematic, and intensive interventions because they made substantive gains and were less at risk for special education classes. However, the researchers were not able to identify any criteria that indicated which students would benefit from interventions based on pretest scores. They also found students who participated successfully in supplemental interventions did not always thrive in general education classes.

Ogle and Correa-Kovtun's (2010) research indicated ELLs were successful when they read daily with follow-up discussions, used inquiry based learning, thought critically through collaboration, and used textual supplements to strengthen their understanding of material. However, Tindall and Nisbet (2010) found there were five necessary components for all readers to be successful including phonemic awareness, word study, fluency, vocabulary, and comprehension, but that ELLs needed modifications that varied in depth and length depending on the component and the student. The primary indicator, they argued, was providing opportunities for enrichment in reading which may or may not include collaboration or questioning.

A study analyzing ELL students at risk for reading difficulties found students benefit considerably when provided with systematic and explicit instruction in their native language (Vaughn, Linan-Thompson, Mathes, et al., 2006). Students in the treatment group for this research significantly outperformed the comparison group and made substantial gains in nearly all areas measured. One explanation was the fewer phonic elements present in the Spanish language allowed students to use those elements to read a greater number of words which resulted in students using their newly found decoding skills to read longer passages in their reading development. However, fluency and comprehension also required oral language, vocabulary instruction, and reading strategies in order to create complete effectiveness. Vacca and Vacca (1996) argued that a diverse student body that included ELLs was most successful with recognition of cultural differences, scaffolding instruction in a metacognitive classroom, collaborative discussions of text, and cooperative learning groups.

Slavin and Cheung (2005) found direct instruction and cooperative learning had positive and enduring effects on reading achievement for English language learners. However, they suggested reading interventions that were effective with native English speakers be used with ELLs but with proper modifications such as instruction in a student's second language when possible, direct teaching of vocabulary, and grade-level book reading. Bernhardt (2005) estimated that first language reading skills contributed up to 21% of second language reading acquisition resulting in many ELLs requiring intensive and comprehensive literacy instruction in their new language.

**Role of gender.** READ 180 was comprised of students from various ethnic backgrounds and ability levels; however, the role of gender was a significant factor in the

outcome of students participating in a reading intervention. Tong et al. (2011) found that ELL students who received an intervention scored significantly better than a control group, and females demonstrated a higher increase in reading comprehension than their male counterparts. This research was countered by Whitney, Renner, and Herrenkohl (2010) who stated, “For both males and females, high risk, low protection individuals were more likely to experience low academic performance than low risk, high protection cases,” yet gender differences became apparent for females when disapproval of antisocial behavior by parents or peers affected their academic studies and changed their behaviors (p. 435).

The socio-economic influence on gender was profound as lower socio-economic status equated to lower test scores (Mensah & Kiernan, 2010). Furthermore, Mensah and Kiernan found males from families with young mothers and low socio-economic standing were more disadvantaged than females in similar circumstances. Flook’s (2011) research established that females experienced more negative social events on daily basis and, in turn, internalized these issues in a manner that negatively affected their ability to fully function in a classroom. Sonnert and Fox’s (2012) research indicated GPA was a strong indicator of academic ability regardless of gender, and female students’ GPA tended to be higher. However, Skelton (2010) noted that any female gains in academia were based on equal opportunities presented to students. In addition, changes in behavior from both teachers and students on reducing female anxiety while increasing expectations of success also resulted in improved female academic performance.

*Summary of zone of proximal development research.* The ZPD described the work a student could complete independently versus work that required the assistance of

an adult or more-skilled peer. A student who was outside their ZPD had experienced failure which was representative of their cognitive skills with that learning material. However, Vygotsky stressed the elastic nature of the brain and that students benefitted most from adept teachers that utilized scaffolding and guided teaching practices to increase their cognitive development. Levykh's modernized ZPD was constructed on the principles of affective and cognitive learning through social, cultural, and historical means. The constructs of READ 180 focused on ZPD through all aspects of its curriculum that included time variances, RTI levels, ELL backgrounds, and the role of gender.

### **Social Learning Theory**

Bandura's (1989) social cognitive theory centered on a student's acquisition of knowledge being derived from observation in a social context based on modeling. He stated children develop cognitive competencies such as problem solving and analysis so they could function effectively in society. The conditions necessary for effective modeling based on the behavior of someone else were (a) attention - the person must first pay attention to the model; (b) retention - the observer must be able to remember the behavior that has been observed; (c) motor reproduction - the ability to replicate the behavior that the model has just demonstrated; and (d) motivation - learners must want to demonstrate what they have learned. Bandura (1989) noted these four conditions varied among individuals thereby reproducing the same behavior differently.

Social cognitive theory was based on human motivation and action, both of which were extensively regulated by forethought. Self-efficacy and outcome expectancies influenced the goals and impediments of students, but also affected the degree of

behavioral change or learning taking place. Furthermore, Luszczynaska and Schwarzer (2005) found self-perception, either positive or negative, was the primary indicator of motivation to succeed with tasks. A student's self-efficacy either improved or diminished their behavior in achieving academic goals. Low motivation and low self-efficacy were strong predictors of learning disabilities which demonstrated the connections between affective, behavioral, and cognitive skills (Sideridis, Morgan, Botsas, Padeliadu, & Fuchs, 2006). For this study, social cognitive theory focused, in part, on the role of modeling in learning acquisition, and one third of the READ 180 program was based on teacher modeling of reading comprehension.

Ormond (2007) argued social cognitive learning theory could be considered a transition between behaviorist learning theories and cognitive learning theories. She also recognized the influential force of physical, social, and self-evaluative environments in reinforcing or punishing behaviors. Ormond stated, "Modeling provided an alternative to shaping for teaching new behaviors. Instead of using shaping, which was operant conditioning; modeling could provide a faster, more efficient means for teaching new behavior" (p. 35). Jackson and Sorensen (2007) found that social constructivist theory focused on the social construction of reality based on human awareness. In relation to education, Vygotsky emphasized social interaction in a cooperative and collaborative environment as a means to strengthening student understanding and involvement with their learning (Powell & Kalina, 2009). For the purpose of this study, the affective domain of learning, or the students' motivation to read, was assessed through the social constructivist lens.

**Motivation.** The implementation of effective, efficient, and appealing teaching strategies should motivate the average learner. Small (1997) described a four step process that promoted positive expectations for successful achievement of student learning objectives, a form of inherent motivation. The four steps were a) attention strategies focused on raising curiosity and interest levels; b) teaching strategies linked to the individual needs, interests, and motives of the student; c) confidence strategies that developed a student's positive belief in a successful outcome; and d) satisfaction strategies that reinforced extrinsic and intrinsic levels of effort. However, for the student to give maximum effort they had to value the task and feel as though they could be successful. Reigeluth (1983) noted that instructional theories provided guidance that created initiative and responsibility while supporting the learning process. As a result of Small and Reigeluth's arguments, there was interconnectedness between ZPD and social constructivism because the motivation to learn was dependent on the student's recognition that they were capable of doing so.

The motivation to read was a result of ability and enjoyment with the reading process, and as Roberts et al. (2008) noted, struggling readers were generally unmotivated to read because they had poor reading skills, failed to find deeper meaning with text, and, as a result, were discouraged from reading. Therefore, they argued, motivating older reluctant readers was critical to their success although their obstacles included more difficult reading material and less motivational support from their teachers.

According to Cambria and Guthrie (2010), the motivation to read, which was heavily influenced by the world outside the classroom, was still controlled primarily by

the teacher. Their research demonstrated that motivation contained different elements that worked independently of each other and included dedication, interest, and confidence. However, dedication was enhanced only when confidence and interest were improved. Based on their study, motivation to read was increased when textual materials were user friendly meaning they could be read by the student with 90% accuracy, reading was theme based, students were given choices with reading relevant to their lives, and there were numerous opportunities for students to collaborate with teachers and peers about what they read. Cambria and Guthrie also stated that increased motivation lead to increased achievement. However, students were more motivated to read only when reading was part of the social environment within a classroom because acceptance by peers overrode the need for academic success.

To improve and sustain reading motivation with older students, Roberts et al. (2008) established that successful teachers implemented the following criteria: (a) provided reading goals, (b) supported independence in the reading process, (c) presented high interest reading material, and (d) amplified social connections among students in regard to reading. Guthrie's et al. (2009) model found the critical factors in motivating reluctant readers were: (a) offering choices, (b) connecting students to the material, (c) daily collaboration amongst students, (d) theme based learning, (e) fostering success, (f) fluency instruction, and (g) teaching self-monitoring comprehension strategies.

Cushman and Rogers (2008) explored student dynamics in public schools and found that students' motivation to succeed socially often outweighed their motivation to succeed academically. However, they argued strong classroom management resulted in academics replacing social standing as a student's focus, and this was accomplished



through a positive, trusting, respectful environment. Dewey (1897) reiterated this point when he argued that school was primarily a social institution and therefore education needed to adapt accordingly in order to motivate students to succeed. However, teachers could alleviate this imbalance by having students collaborate in a respectful environment that created and implemented problem solving skills both inside and outside the classroom. Kember, Ho, and Hong (2008) noted that students became highly motivated when they found relevance to their learning and when they could apply their learning to their everyday lives. Therefore, opportunities for peer interaction and socialization could stimulate the interests of students for the purpose of analysis, problem solving, and social development (Gutek, 2005).

The modern classroom can be diverse, and students who are valued and challenged may be more connected to their educations. Understanding multiple points of view, improved collaboration skills, and an enhanced sense of self were some of the benefits derived from a diverse classroom (Gutek, 2005). In an intervention class, the considerations of what should be taught and how it should be taught can be numerous but begin with the essential questions of “Who are my students?” and “What are their needs?” One important consideration was how to meet the needs of a diverse student body with a multitude of issues. Gay (2000) stated that many abilities and intelligences were untapped in diverse classrooms. He argued that recognition of these students in the instructional process radically improved school achievement and that culturally responsive teaching unleashed the learning potential by simultaneously cultivating students’ academic and psychosocial abilities.

One of the strongest motivators for students was recognition of their development as learners. This was accomplished through a number of means, but a curriculum designed with worthwhile assessments demonstrating academic growth or success was an effective motivational tool for all types of learners (Brookhart, 2007). Assessment also allowed teachers to better understand their own accomplishments, their students' needs, and areas to focus on for future improvement. He further explained that formative assessment, which resulted in an individually designed curriculum, addressed both cognitive and motivational factors if the teacher was effective in communicating specific goals for the student. He noted that assessment feedback provided a clear, positive message with set expectations for follow-up work and, in contrast, ineffective feedback stopped the learning process and motivation was often negatively affected. Burke (2003) supported this ideal, "when students' learning was built on their own construction, they became active participants in their own education" and motivation to succeed became self-sustaining (p. 26).

Aside from meaningful learning experiences, motivation of reluctant learners and creation of academic momentum with students on a daily basis through curriculum and instructional strategies strengthened their choices, abilities, and resolve. Strahan (2008) explained why poor students made academic progress and the importance of the teacher's role in fostering positive academic change with struggling students. The findings concluded that teachers could build upon the strengths of a student, take those strengths and then improve other areas of a student's academic life, such as responsibility and organization, until the previously reluctant student became a self-sufficient learner with the attitude and skills necessary for success. Similarly, Powell and Kalina (2009), who

based their research on Vygotsky's social constructivism theory, noted that each classroom contained a unique arrangement of ethnic, biological, and identity issues that influenced the experiences of individual students. They also found the social experience of students was predicated on worthwhile activities that stimulated human development, a necessary step prior to attainment of knowledge.

Bowman (2007) believed that teachers could only inspire students and that motivation was an intrinsic quality. Therefore, the responsibility of success, according to Bowman, was with the student and not the teacher. He further stated teachers were misdirected in their belief that they need to motivate students. Strahan (2008) supported Bowman's findings in that teachers needed to ensure that they did not destroy students' internal motivation to learn with misplaced policies and practices. He argued instead that teachers should inspire and foster student motivation through intrinsic and extrinsic rewards that utilized any of the following methods: emotion, recognition of student actions, fostering positive expectations, providing clear and timely feedback, guiding students in finding meaning, showing values, providing new perspectives, and putting challenges in a real-world context. Yet Bandura (1995) noted that teachers were most effective when they had an inspiring environment that reinforced students' self-efficacy while offering mastery learning experiences.

Davis (2009) believed there were multiple methods to motivating students, but focused on teachable opportunities that enhanced students' desires to learn. These methods included creating a positive learning environment that valued students, having students find personal connections and meanings, giving frequent and positive feedback as it related to the learning situation, and generating numerous opportunities for success.

However, students still controlled much of their own success according to Abdelfattah's (2010) research which indicated students with high motivation to succeed scored significantly higher on assessments than students with mediocre or poor motivation.

The end result of the teacher fulfilling his or her role as an educator was that a student may be more motivated to learn to the highest of their abilities thereby creating more opportunities. Burke (2003) emphasized the importance of maximizing student learning stating that it prepared them for the modern world of adult competency.

Students were also motivated to learn through any number of factors as Kuhn (2007) explained with her research on meaningful school experiences that maximized the individual's learning potential. However, she stated the problem was too often students were ill-prepared for life after high school because of curriculum designed to measure their abilities rather than the meaning they could derive from the work. Therefore, she advocated for a school experience that gave students active involvement, collaboration, self-discipline, and problem based learning for future success.

**Literacy engagement.** An engaged reader has built fluency and comprehension by reading extensively and monitoring their own textual knowledge (Guthrie & Humenick, 2004). In contrast, a disengaged reader has read sporadically for any number of reasons or has avoided reading altogether. As Stein (2001) noted, reading success was first based on reader's orthographical recognition of the shape of letters, word order, and spelling patterns which yielded the meaning of words. Students with limited orthography required specific interventions to increase their rapid recognition of words. In turn, the textual knowledge and fix-up strategies students employed to improve their reading comprehension were limited (Guthrie & Humenick, 2004). For the purposes of teaching

and research, literacy engagement was assessed on four levels: (a) time on task (concentrating on text, focusing on meaning, and maintaining cognitive effort); (b) affect (interest and satisfaction surrounding the interaction with text); (c) the cognitive process of reading (questioning and monitoring comprehension); and (d) the exposure to various literacy activities that included the amount and diversity to different types of text (Guthrie & Humenick, 2004).

Roberts et al. (2008) identified older students as being stuck in a perpetual cycle of requiring more effort for fewer results which affected their motivation to read. Furthermore, he argued the systematic and explicit instruction that struggling older readers required was only part of a layered intervention that focused on fluency, vocabulary, word study, comprehension, and motivational skills. Because there were numerous issues, “interventions had to be commensurate with the amount and breadth of improvement students must make to eventually participate in grade- level reading tasks,” yet it is unclear what exact conditions had to be in place to help older students with serious reading issues (p. 68).

**At-risk students.** Teaching at-risk students was a difficult task due to the numerous issues involved which may have included failing grades, low attendance, behavioral concerns, low test scores, and cultural issues such as second language learning. However, there was an agreement that at-risk secondary level students required intensive reading interventions in order to close the significant differences they had between themselves and their grade-level peers (Schumaker, et al., 2006). Furthermore, most struggling middle and secondary level readers required intensive interventions that last beyond a year before significant reading issues were resolved (Vaughn, et al., 2011).

One issue with at-risk students was attendance. Papalewis (2004) found READ 180 students missed 18% of the school year for various reasons with the data holding true across gender and ethnicity, and 78% of participants in READ 180 were Hispanic students. Payne (2008) stated that teachers could elevate the academic success of these struggling students by building trust, creating meaningful learning opportunities, monitoring and adapting to the progress of each student, and involving parents in the school community. Such strategies were useful, yet early recognition of problems and the proper use of interventions were most effective regardless of race, socio-economic status, or gender because increased opportunities were presented across the social spectrum with each level of academic accomplishment (Neild, Balfanz, & Herxog, 2007).

Lane, et al. (2007) performed a study investigating the effectiveness of brief reading interventions upon the phonological skills of at-risk children and whether improvements in academic skills positively affected social and behavioral skills. The mixed demographic participants demonstrated improvement with decoding skills, but behavioral issues were unchanged. Behavior was assessed based on targeted behaviors versus negativity and disruption. Lane et al. (2007) suggested that, “without intervention, behavioral and academic deficits were likely to broaden over time. For example, aggression was likely to expand in scope from verbal noncompliance and caustic comments during primary grades to more serious forms of physical aggression as students entered the secondary grades” (p. 266).

Oldham (1999) indicated students had numerous cultural distractions, and most at-risk students had their educations as a low priority in the school spectrum. Bost and Riccomini (2006) indicated that students with diverse needs must be engaged

academically, psychologically, and behaviorally for higher level learning to occur. Once this was accomplished, appropriate individualized teaching strategies that addressed all levels of knowledge including basic, problem solving, and application created improved cognitive skills.

Research into the effects of parental involvement and its impact with the reading abilities of children was vast. Many of the students being used for these studies experienced the negative effects of poverty including single parent households and minimal academic support from their parents. Manjula, Saraswathi, Prakash, and Ashalatha (2009) found 93% of academically low students had difficulty in reading, and 80% of the students with reading difficulties had little or no academic support at home. They also established a connection between parental support and academic achievement compensating for loss of intelligence while offsetting the adverse effects of low socio-economic standing. Bandura (1989) also noted that parental modeling had a profound effect on children's behavior, but motivation to succeed or fail became intrinsic as determined by the social effects they created within an adolescent's different environments.

***Summary of social learning research.*** Bandura's social cognitive was based on human motivation. Furthermore, the self-efficacy and outcome expectancies of students influenced their goals and the degree of behavioral change. Other studies also found self-perception, either positive or negative, was the primary indicator of motivation to succeed with tasks. In addition, low motivation and low self-efficacy were strong predictors of learning disabilities which demonstrated the link between affective and cognitive skills. Older students that struggled with motivation to read have numerous challenges that were

addressed through various interventions that helped them overcome the obstacles of being an at-risk student.

**READ 180.** READ 180 offered reading instruction for primary and secondary level students and was designed to meet the needs of a multitude of learners that included ELLs and students with learning disabilities (Scholastic Inc., 2011). Between 1994 and 1999, over 10,000 students in Florida piloted the first READ 180 program, and initial quantifiable research indicated improvement in overall reading ability and in changes with behaviors and attitudes toward reading (Papalewis, 2004).

Since the initial Scholastic sponsored study in 1999, the findings of the effectiveness of READ 180 were inconsistent. One mixed methods study conducted by Felty (2008) studied the effectiveness of READ 180 on reading skills with 47 eighth grade students. The research utilized pretest-posttest measures, observations, surveys, and interviews. The Pennsylvania System of School Assessment (PSSA) was used as a baseline for reading improvement, and results confirmed a significant gain in the READ 180 treatment group. The qualitative portion of the study indicated both teachers and students thought that the READ 180 program had a positive effect on their comprehension, fluency, decoding, and vocabulary skills. However, the results of Campbell's (2006) study of the effectiveness of the READ 180 program on struggling readers at the middle school level contradicted Felty's findings. The experimental group in his study received the READ180 intervention while the control group received a non-computerized Language Arts Intensive Reading Instruction with results that demonstrated no significant difference in reading achievement between the two groups. Yet the READ 180 program claimed that students' reading comprehension across grade levels was



improved an average of four percentile points on tests aligned with state standards, and general literacy achievement improves 12 percent with proper implementation (What Works Clearinghouse, 2009).

Three other studies of READ 180 found statistical significance through testing. Haslam, White, and Klinge (2006) reported a statistically significant effect of READ 180 on the Texas Assessment of Knowledge and Skills Reading Test although What Works Clearinghouse (2009) found the effect not to be significant or large enough to be substantively important.

**Effects of READ 180.** The level of academic success achieved with an afterschool READ 180 program versus a less-structured reading intervention program determined READ 180 had a significant effect on reading skills, but was dependent on thoughtful preparation, suitable resources, and ongoing attention to both the students and the program (Hartry, Fitzgerald, & Porter, 2008). The researchers did state that their study was inconclusive as to whether or not READ 180 had a positive influence on test scores. The Title I school that participated in the two year study had unusual demographics for the participants (56% female, 44% male), and no teacher fidelity rubric was implemented to assess teacher efficacy or consistency. As a result, the researchers concluded that schools and districts should address their own specific issues regarding finances, student needs, teacher availability, and site accommodations before they implemented the READ 180 program. According to the study, some of the issues that affected the efficacy of READ 180 included excessive preparation time for each class, limited paraprofessional assistants to aid the teacher, a significant increase in homework assignments, technology issues that were school and or READ 180 based, teacher fatigue,

and student weariness over the year long daily routine of 90 minute classes that focused exclusively on reading skills.

Lang, Torgesen, and Vogel et al. (2009) researched the impact of prescriptive reading intervention programs (READ 180, SOAR, RISE and REACH) versus teacher designed interventions. The mixed demographics sample consisted of 1,197 Florida ninth grade struggling readers from seven high schools. Comparisons across interventions revealed students in READ 180 classes made significantly greater gains compared to students in SOAR classes. In addition, students in READ 180, RISE, and REACH classrooms showed greater average gains relative to ninth-grade students statewide. The study demonstrated increasing the intensity of high-quality instruction substantially accelerated growth in students who had struggled with reading but without the instructional conditions necessary to bring struggling readers to grade-level performance. The broad scope of this study also described the trends and issues occurring with at-risk struggling readers at the secondary level which included disengagement from learning, poor attitudes toward reading, low overall academic skills, and a lack of implementing reading skills across content areas.

Papalewis (2004) research supported the positive effects of READ 180 on ELL students and was particularly effective with improving all aspects of Language Arts for READ 180 participants. She further implied that developmental reading skills could be accelerated with struggling older readers using the READ 180 program provided there was teacher fidelity with the program and students received ongoing support. One finding from the research of Lang, Torgesen, and Vogel et al. (2009) noted that READ

180 “was associated with the smallest reading gains for the high-risk students and the largest gains for the moderate-risk students” (p. 168).

The Charlotte-Mecklenburg (2008) school district revealed that READ 180 had no significant effect on reading comprehension test scores; however, two of three high schools dropped the READ 180 program midway through the school year due to needed preparation time for an impending state mandated test. Yet analysis by the school district of the READ 180 program prior to implementation discovered significant positive effects from READ 180 although it was noted many of the studies were sponsored by Scholastic, the publisher of READ 180. After all data was evaluated, Charlotte-Mecklenburg schools found READ 180 provided no added benefit to struggling high school readers as compared to other struggling readers enrolled in non-READ 180 courses.

There were various effects with READ 180 on middle school students with varying linguistic and cultural backgrounds. However, the fidelity of instruction was an important step between professional development courses for teachers and subsequent evaluation of child outcomes (Wu, 2009). In addition, Wu emphasized the efficacy of READ 180 was predicated on classroom setup and the amount of ELL and special education students placed in the year long course. Furthermore, she noted that READ 180 did not meet the linguistic needs of ELLs because speaking practices did not replicate an authentic environment which limited the participants’ conversational language, and the program did not integrate enough culturally relevant reading material to stimulate independent reading. Wu stated that the use of technology did motivate student engagement, but the lack of individualized instruction limited READ 180 ability to maximize students reading skills.

Kim, Samson, Fitzgerald, and Hartry (2009) researched nearly 300 struggling readers in grades four through six who utilized READ 180 four days a weeks and found no significant differences between READ 180 participants and a district sponsored after school reading program. Both programs were moderately successful. The study also analyzed the performance of subgroups (Special Education students, ELLs, minority groups) that were critical to the federal assessment of a school's performance and found "no evidence that effects on the measure of word reading efficiency, reading comprehension, and vocabulary differed by ethnicity, free or reduced-price lunch status, or gender (p. 1120). Furthermore, the only clear success with READ 180 was limited to fourth grade students' attendance and oral reading fluency, and there was no indication that teacher fidelity affected the effectiveness of READ 180. The researchers concluded that one comprehensive reading intervention program specifically designed for older struggling readers, such as READ 180, did not meet the multitude of needs inherent with these types of students. They further suggested that READ 180 was more effective as a mixed-method program to be utilized in conjunction with teacher-directed instruction focused on the individual needs of the students.

Table 2.1 *Summary of other relevant READ 180 research*

Author	Study	Purpose	Methodology	Results
Bebon, 2007	Impact of reading interventions with middle school migrant students	Established the effects of READ 180 with comprehensive reading skills.	247 6 <sup>th</sup> -8 <sup>th</sup> graders tested using a causal-comparative study.	Participants in READ 180 demonstrated no significant gains.
Caggiano, 2007	Meeting the literacy needs of struggling middle school readers	Determined the effects of READ 180 with middle school students.	1182 6 <sup>th</sup> -8 <sup>th</sup> graders tested using the READ 180 based SRI test.	6 <sup>th</sup> grade participants demonstrated significant growth with reading comprehension. 7 <sup>th</sup> & 8 <sup>th</sup> graders had no significant differences from the control group.
Campbell, 2006	Reading achievement of middle school students	Researched the effects of READ 180 on far-below grade level middle school readers.	Comparison of test scores between two groups of 70 students.	The READ 180 program was not fully implemented to the publisher's requirements; results revealed no significant differences in reading scores.
Nave, 2007	Assessing READ 180 with at-risk students	Established the effects of READ 180 on the Tennessee state TCAP reading test.	Comparisons of 5 <sup>th</sup> & 7 <sup>th</sup> grade reading scores for students in the lowest 25 <sup>th</sup> percentile.	The READ 180 based SRI score had a significant effect on reading skills regardless of gender or socio-economic when compared to other at-risk students not in READ 180.
Scholastic Research, 2007	Using READ 180 to change reading attitudes	Publisher of READ 180 reported the benefits of the program.	Terra Nova pre & post tests used with 128 4 <sup>th</sup> - 9 <sup>th</sup> graders.	Increased reading attitudes 80%; significant increases in reading comprehension scores.

Table 2.1 *Summary of other relevant READ 180 research (continued)*

Author	Study	Purpose	Methodology	Results
Visher & Hartry, 2007	The impact of reading interventions in after-school programs	Determined the efficacy of READ 180.	300 low socio-economic participants from 4 <sup>th</sup> -6 <sup>th</sup> grade.	Motivation and attendance increased. One year of growth on word recognition with increased accuracy.
White, Williams, & Haslem, 2005	Effect of READ 180 on urban schools	Established the effect of READ 180 on student performance	652 4 <sup>th</sup> -8 <sup>th</sup> graders compared to similar low-socio economic students within the same school district.	Participants showed gains on school-based exams as compared to non-participants. The most significant gains were found in 5 <sup>th</sup> grade.

## Summary

The current gaps in literature included minimal qualitative analysis of READ 180 or RTI for secondary level students. Reading interventions were typically implemented at the primary grade levels (K-8) and completed in one-on-one or small group settings. At the secondary level (grades 9-12), the reading issues struggling readers faced were often more complex and required layers of interventions and a significant commitment of time. READ 180 was designed to address these issues through a comprehensive system that met the needs of the various types of reading issues found in a secondary level remedial reading course. However, there was nominal research on improving affective reading skills of high school students in the United States, and there were few studies that addressed students' development of cognitive reading skills with secondary level reading intervention programs. This study addressed this gap by investigating the affective and cognitive efficacy of READ 180 through its structure and design.

## CHAPTER THREE: METHODOLOGY

### Introduction

This qualitative case study was designed to explore what effect the READ 180 reading intervention program had on the affective and cognitive reading skills of at-risk secondary level students. The case study being utilized for this qualitative research was conducted with 21 students over a 16 week period in the summer and fall of 2012. Data was triangulated through interviews, observations, and student documents before being analyzed through theoretical propositions and case description for answers to the research questions. Ethical research was conducted to ensure the study's integrity.

**Research question one.** What impact, if any, did the READ 180 program have on the affective and cognitive reading skills of at-risk secondary level readers?

**Research question two.** What specific teaching strategies from the READ 180 program were perceived to have had the greatest impact with improving students' reading comprehension?

**Research question three.** How, if at all, were students' attitudes toward reading affected by READ 180?

**Research question four.** How, if at all, did READ 180 improve the comprehensive reading skills (comprehension, vocabulary, application of reading strategies) for at-risk high school freshmen?

### Research Design

This research followed a qualitative design using a case study approach. A case study approach provided real-life situations and a wealth of details to give contextual knowledge of the experiences of struggling secondary level readers as they attempted to



improve their reading skills and habits one last time with complete school support (Flyvbjerg, 2006). This approach was also appropriate for this research because it used multiple forms of data collection, allowed for the study of a program through analysis of numerous data, and provided an in-depth understanding of the effectiveness of the multi-layered READ 180 reading intervention program (Creswell, 2007). Furthermore, Creswell stated that case studies were descriptive, particularistic, and heuristic in design because of their focus on people, events, or programs that required explicit details in order to understand the phenomenon. As Yin (2008) stated, a worthwhile case study was rigorous because it was useful, contained long-term observations of participants, utilized member checks, triangulated data, employed coding checks, was contextually complete, and related all data to the research questions. This study applied each of these principles to achieve the level of competence required in educational research.

READ 180 was used from grades four through nine throughout the school district where the study was conducted and there was inconsistent data that demonstrated the exact results of the program upon the students reading skills or reading habits. Therefore, the results of the case study provided a separate analysis of READ 180 to further understand the perceived efficacy of the program while justifying whether at-risk secondary level students needed supplemental reading treatments to further their affective and cognitive reading skills.

### **Researcher's Role**

The researcher was a human instrument in this study and I, as the researcher, had the following connections to the research being conducted. First, the setting of the study was at my former place of employment in a former colleague's classroom. The

participants in the study did not have any academic or social connections to the researcher. Second, I taught READ 180 in the two consecutive years prior to the study and other corrective reading courses for 10 years which may have affected the perception of the reading strategies employed with READ 180. I utilized a qualitative case study design which required interaction with all of the participants (district personnel, teachers, students) that were part of the research. The collection of data through these sources, and its subsequent examination, was maintained through an unbiased system of coding to minimize my personal viewpoints.

### **Participants**

Students were placed into the READ 180 program at the secondary level based on their previous year's California Star Test (CST) reading exam score, a current Scholastic Reading Inventory (SRI) test, a current Gates MacGinitie reading assessment test, and on the recommendation of their eighth grade English teacher. The group of students participating in the case study was 21 ninth grade students labeled as at-risk for their academic deficiencies. According to Yin (2008), the criteria for a specific sample size for a case study was irrelevant. The sample consisted of 14 males (nine Hispanics, three African Americans, and two Caucasians) and seven females (five Hispanics, two African Americans) with an age range from 14 to 15. The reading levels for the class varied from grades three to eight with nine classified as second language learners, and two students designated as special education learners. The attrition rate for the academic year was 78% for this READ 180 class. 27 students were recommended for placement into the class; however, two students tested out of READ 180 at the beginning of the year based on their Lexile scores which were derived from the READ 180 based SRI test. Students

could also test out of READ 180 at the end of the first semester. A judgment sample was employed for this research for the purpose of having the most productive sample to answer the research question. This was done through broad range of subjects so as to create a maximum variation sample (Marshall, 1996).

Table 3.1 Participants Biographical Chart

Participant number	Ethnicity	Gender	Pseudonym	Reading Level
1	Hispanic	Male	Miguel	3
2	Hispanic	Male	Chris	4
3	Hispanic	Male	Angel	4
4	Hispanic	Male	Jesus	2
5	Hispanic	Male	Isai	1
6	Hispanic	Male	Javier	4
7	Hispanic	Male	John	4
8	Hispanic	Male	Mike	3
9	Hispanic	Male	Christian	3
10	African-Am.	Male	Josh	2
11	African-Am.	Male	Ty	2
12	African-Am.	Male	Ray	4
13	Caucasian	Male	Zack	2
14	Caucasian	Male	Ray	2
15	Hispanic	Female	Maria	3
16	Hispanic	Female	Tania	3
17	Hispanic	Female	Julia	2
18	Hispanic	Female	Daisy	4
19	Hispanic	Female	Sandra	3
20	African-Am.	Female	Marlene	2
21	African-Am.	Female	Jessica	4

### Setting

The setting for the study was Pacific High School (pseudonym) in Pacific, California. The city of Pacific had 183,000 residents and a diverse demographic makeup that was reflected in the two primary high schools. There were 2581 students and 106 teachers at the school site. The demographic makeup of the school was as follows: 61% Hispanic, 22% Caucasian, 9% Black, 8% Pacific-Islander. There were approximately 450 ELL students on site, all receiving supplemental interventions such as ELD or READ

180. The school had a Title I designation for the predominant issue of poverty as 51% of the students were on the free and reduced lunch program, and 24% of students were second language learners that received specialized English language instruction. The dropout rate was approximately 6% of which 29% of these students had READ 180 during their ninth grade school year.

The school had been measured an academic success based on its improved Academic Yearly Progress (AYP) five years running. Its AYP score of 743 in the previous academic year gave it a school rating of 10 out of 10 in relation to similar schools. The social issues at the site were vast and included gang problems that had been prevalent in the community and on campus for 30 years. The READ 180 program was conducted as a one hour class five days per week. This setting was chosen because it consisted of secondary level students, and it represented a typical district setting of struggling readers according to site demographics. The teacher who administered the READ 180 program, Mrs. Blake (pseudonym), had been trained by the publishers of the program and had taught the coursework for six consecutive years prior to this study.

Table 3.2 *Data planning and collection*

Research Questions	Type of data that addressed the question
What effect did the READ 180 program have on the affective and cognitive reading skills of at-risk secondary including level readers?	Evaluation of READ 180 materials, observations of READ 180 classroom, review of student documents: L book & R book, READ 180 progress reports, student interviews, teacher interview, administrator interview
What specific teaching strategies from the READ 180 program were perceived to have the greatest impact with improving students' reading comprehension?	Evaluation of READ 180 learning & teaching materials, evaluation of student progress via READ 180 reports and student documents, observations of READ 180 class, teacher and student interviews, READ 180 support provider interview, teacher evaluation forms via READ 180 support provider
To what extent were students' attitudes toward reading affected by READ 180?	Student questionnaire, observations, student reading logs, READ 180 summative reports, teacher interview
How effective was READ 180 at improving the comprehensive reading skills (comprehension, vocabulary, application of reading strategies) for at-risk high school freshmen?	READ 180 summative reports, test scores (SRI & Gates MacGinitie), observations, student documents, student interviews, administrator interview, teacher interview

### **Data Collection Procedures**

Institutional Review Board (IRB) approval was obtained prior to the collection of data so that all participants in the research were protected from potential harm (Appendix A). Since all students were under the age of adult consent, an assent form was given to each student participant (Appendix B). Consent forms were also given to the teacher and administrator that participated in the study (Appendix C). Site approval was obtained prior to the beginning of the research. The 21 subjects recruited for this study were high

school students of both genders, ages 14 to 15, with multiple ethnicities represented. Each of the participants were students in the ninth grade READ 180 reading intervention class and were been placed there based on test scores and teacher recommendations. The READ 180 teacher agreed to have her class used for this study, and contact with the participants was direct as the READ 180 classroom is located on the campus where I previously taught.

Students were contacted once IRB approval was received. Participants were then consulted on the parameters of the study before given assent forms. Students were verbally addressed in a whole class setting on their first day in the READ 180 class. The script included an introduction of me, the purpose of my study, their role in that study, and what the data was used for. Students were given an opportunity to ask questions in relation to any of the aforementioned talking points. I then spoke with students one-on-one and presented the assent form.

Data was collected and organized into files based on all listed items in the data collection section. Each student folder was filed alphabetically into a system that contained document analyses, individual surveys, observations, and student work (journals, reading logs, and READ 180 workbooks). Interviews of faculty and administrators were filed separately. This process of organization allowed for the next step of coding information. Data coding was classified into types of learning materials being utilized and by the reading strategies and questions being employed. Data was color coded based on the type of learning strategy and skill being addressed. The coding process allowed me to determine the frequency of occurrence with specific issues in relation to reading comprehension such as a “description on the culture and an analysis of

themes” (Creswell, 2007, p. 172). Categorical aggregation was employed so that specific instances and response from data could be collected for emerging issues. R books, reading journals, and other student based materials were checked for levels of response to specific reading comprehension questions. This process allowed me to determine which types of comprehension questions and what level of comprehension questions students found easy, challenging, or difficult.

A cross-case synthesis or a comparison of each participant was done using the table format. The table was divided into a 3 x 3 x 21 format (Appendix L). Three categories encompassed the levels of reading comprehension (literal, interpretive, applied); three categories represented comprehension, fluency and vocabulary based learning; 21 represented the total participants. This helped discern similarities and differences among the participants with their learning skills in specific reading areas. Naturalistic generalizations were also employed so that data could be generalized for informational purposes. Consistent themes and issues, taken from the categorical aggregation and the cross-case synthesis procedures, were the foundation of generalizing the data. This process simplified data into comprehensible material so that it could be applied to a population of cases for other teachers or researchers (Creswell, 2007).

The READ 180 model required 90 daily minutes of instruction in three components: 20 minutes of teacher directed instruction to the whole group; three 20 minute small group rotations that consisted of computer instruction, silent reading of individual novels, and small group instruction; and a concluding 10 minutes of whole group discussion of the reading methods and strategies utilized for that day. The materials used for this study include READ 180 consumable R books and L books, the

READ 180 student library with some higher level books having audio access, the independent practice interactive computer program, and supplemental DVD's for each reading unit.

### **Interviews**

Interviews were conducted with the 21 students used in the qualitative case study, the teacher conducting the READ 180 program, and the district administrator in charge of curriculum and instruction. I recorded the interviews via shorthand guided by the questions found in tables 3.3 – 3.5 with a focus on why and how particular issues occurred (Yin, 2008). Some parts of interviews with the READ 180 instructor and administrator were conducted via email.

Table 3.3 *Semi-structured Open-Ended Student Interview Questions*

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#### Questions

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1. What do you enjoy about the READ 180 program?
  2. What is difficult about READ 180?
  3. What would you change about the READ 180 computer program?
  4. Of the three parts to the READ 180 class, what helps you the most? Why?
  5. Describe the books you enjoy reading from the READ 180 library?
  6. What other books have you read this year that you have enjoyed?
  7. Describe the parts of the R book that helps you with your reading?
  8. What reading strategies have helped you in the past? Why?
  9. Do you make an effort to improve as a reader?
  10. How helpful are supplemental materials like reading logs, L books, and R books?
  11. What is an ideal reading situation for you at school?
-



Table 3.4 *Semi-structured Open-Ended READ 180 Teacher Interview Questions*


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Questions
<ol style="list-style-type: none"> <li>1. How long have you taught the READ 180 program?</li> <li>2. What are the specific goals of READ 180 based on each of the three teaching components?</li> <li>3. Has the school properly trained its READ 180 teachers and has it properly implemented the READ 180 program?</li> <li>4. How effective is READ 180?</li> <li>5. Describe the benefits of READ 180 for struggling readers.</li> <li>6. Is READ 180 appropriate for secondary level students?</li> <li>7. What changes, if any, could improve READ 180?</li> <li>8. What site modifications could improve READ 180?</li> <li>9. What types of professional development would improve READ 180?</li> <li>10. What supplemental materials or teaching strategies would enhance READ 180?</li> <li>11. Describe how you would improve READ 180 to meet the different needs of your students?</li> <li>12. What advice would you give to new READ 180 teachers?</li> <li>13. Other comments or concerns about READ 180 or the school use of READ 180.</li> </ol>

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Table 3.5 *Semi-structured Open-Ended Administrators Interview Questions*


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Questions
<ol style="list-style-type: none"> <li>1. How and when did this school site begin using the READ 180 program?</li> <li>2. Who decided to use the READ 180 program and why?</li> <li>3. Were other reading interventions considered?</li> <li>4. What is the goal(s) of the READ 180 program?</li> <li>5. Why is READ 180 offered only to ninth and tenth graders?</li> <li>6. How effective is READ 180?</li> <li>7. What are the qualities you look for in selecting a READ 180 teacher?</li> <li>8. What is the biggest success of the READ 180 program?</li> <li>9. What problems have you encountered in the READ 180 program?</li> <li>10. What is the selection process for students being placed into READ 180?</li> <li>11. Do you think that other reading interventions are necessary to supplement the READ 180 program?</li> <li>12. What problems have you encountered with READ 180 in regard to students, teachers, school sites, and <i>Scholastic</i> (publishers of READ 180)?</li> <li>13. What is the cost of READ 180?</li> </ol>

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### **Observations**

Direct observations were conducted in the classroom weekly in two 56 minute cycles over the 16 week research period. Observations included a running record of student response relating to the research questions, as well as observations on vocabulary, comprehension, and study habits. The purpose of the observations was to understand the specific teaching strategies that impacted the reading comprehension skills of students in the READ 180 program. Observations ensured information was evaluated in context, and I, as the observer, remained isolated from the teaching environment to reduce reflexivity which diminishes accurate observations (Yin, 2008). The observation forms used for this study (appendices E, F, G, and H) were aligned with the foundational theories of Bloom's taxonomy, Vygotsky's zone of proximal development, and Bandura's social learning.

### **Documents**

Student documents, which included the R book, L book, computer based reports, reading logs, and questionnaires, created broad coverage with an exactness that strengthened the credibility of the findings for this study (Yin, 2008). Furthermore, it "corroborated and augmented evidence from other sources" such as participant interviews and observations (Yin, 2008, p. 103).

### **Data Analysis Procedures**

The data for this qualitative case study was triangulated based on interviews, observations, and student documents. Then theoretical propositions and case descriptions were used to analyze and present data through a coded method while building theories and discovering themes with the collected research so as to increase validity of findings (Yin, 2008). According to Yin (2008), theoretical propositions follow the original

objectives of the study, and case descriptions utilize a framework that follows the research questions and major points of the research to identify and explain the findings. Coding was used for interviews, observations, and student documents relating to the primary focus of the effect of READ 180 on the affective and cognitive reading skills of the participants. Since there were multiple research questions, cross-case analysis and embedded analysis of sub-units was used to achieve a detailed level of inquiry which helped describe the context, features, and process of READ 180 and its effects while maintaining a chain of evidence (Yin, 2008).

Research question one was to determine the perceived reading comprehension gains commonly attained by students in READ 180 after one academic semester. This was addressed in the design of the CST exam which was a combination of real-world readings, fact-based text, and narrative prose; it had a mix of all three comprehension level questions throughout the 72 problems presented in the reading comprehension section. Students who scored at the basic level were considered just below grade level and had a corresponding score that was reflective of a student who knew literal questions but struggled with more than half of the interpretive problems. Students who scored proficient or advanced on the test mastered all three levels of questioning, however if students were in READ 180 then they scored below basic on the CST the previous academic year. Therefore, analysis of the CST results helped determine which levels of questioning were affected by the READ 180 program. The SRI test was formatted in a similar fashion to the CST but was only 20 questions and was limited in its breakdown of the three levels of questioning which was why it was used as secondary analysis regarding research question two.

Another question addressed in this study was the effect of READ 180 upon the reading attitude and behaviors of its participants. The program claimed to improve both though there was no clear measurement of this in the READ 180 curriculum. Therefore, the student questionnaire (Appendix I) was utilized to determine any differences in relation to students' self-perceptions of their reading attitudes and their actual behaviors.

### **Trustworthiness**

To ensure the trustworthiness of the qualitative case study, the following measures were implemented: (a) triangulation - data collection was based on observations, interviews, and student documents such as journals and R books. This process corroborated themes, issues, and other relevant information; (b) engagement and observation – running records and other forms of observation pertinent to the study were maintained daily which assisted in determining the efficacy of all elements of READ 180 that were being studied; (c) peer review – a professional colleague that also taught READ 180 conducted an external review of the participants' learning materials. This process gave a different perspective on the data which expanded the interpretation of the information used in the study; (d) in-depth description - all aspects of the data analyzed were coded and clarified in a table format to make information meaningful for transferability to future research; (e) member checks – to support validation of research and strengthen findings, I asked all persons interviewed during the interview for clarification of answers and summarized their responses at the end of the conference so they could modify their responses as needed. The teacher and administrator were also given written summations of their interview responses and asked to comment on their accuracy. Any inaccuracies were readdressed by the interviewer and the interviewee for

clarification; (f) role of researcher – I conducted the case study with 15 years of experience teaching literacy based courses in the public school setting and five years of teaching reading courses at the college level. My influences as a researcher on this qualitative case study included knowledge of current research of best practices with reading instruction, a Master's thesis focused on designing, implementing and evaluating a secondary level reading program, and instruction and tutoring of below grade level readers for 15 consecutive years that used specific strategies that addressed students needs.

### **Ethical Considerations**

This study may have impacted the future placement of specific types of students enrolled in READ 180 potentially leaving them without extra reading support because of their placement in mainstream classes. In addition, the results of the study may have influenced the school district where the study took place in determining whether READ 180 was both academically effective and cost efficient which may have impacted teachers, curricular design, and the interventions used for struggling readers throughout the district. Finally, the integrity of interview questions was structured with proper terminology and diction so that any potential biases or persuasiveness was avoided for the purpose of truthful responses by all participants. As a Christian, I believed educators had a higher calling for God gave them the unique talent and opportunity to enrich the lives of others, and the art of teaching was derived from being spiritually centered so that the chaos of the world did not touch the classroom. The virtuous Christian teacher and researcher accomplished this standard of excellence through integrity, determination, and daily prayer.

## **CHAPTER FOUR: FINDINGS**

### **Introduction**

This chapter reports the findings to the study that examined the effectiveness of the READ 180 reading intervention program on the affective and cognitive reading skills for at-risk secondary level students. The data collected from the participants was presented in accordance with each of the four research questions; it was also presented in relation to its use with the three core teaching components of READ 180. The analysis of the data was subjective to the researcher. However, interpretive bias was hopefully minimized by offering multiple explanations to data when applicable. In addition, participants and the READ 180 teacher clarified any data based questions that were subject to research bias. Relevant background information was presented prior to the findings of the research to provide context for the analysis.

### **Background Information**

Pacific High School had approximately 80 students in the READ 180 program divided among three teachers. The most senior teacher of the READ 180 program, with six years of experience and training, was used for purposes of fidelity with READ 180 and for the trustworthiness of the study. Scholastic Incorporated, the publisher of READ 180, advocated the teaching model listed in table 4.1. Because of limitations with the Pacific High School schedule, students received the core 60 minute model in a one hour class Tuesdays through Fridays with Mondays offering READ 180 students support with the reading aspect of their English classes. The whole group component, which totaled 20 minutes, was implemented on Tuesdays and Thursdays with the three rotations being utilized for the remainder of class. Wednesdays and Fridays were used exclusively for

the three READ 180 rotations (computer software, small group instruction, and independent reading). The divided implementation of these components had little effect on the fidelity of the program due to the consistency of implementation with small group and whole group instruction, the utilization of regular rotations four times per week, and reading support being offered to students on the one day READ 180 was not taught.

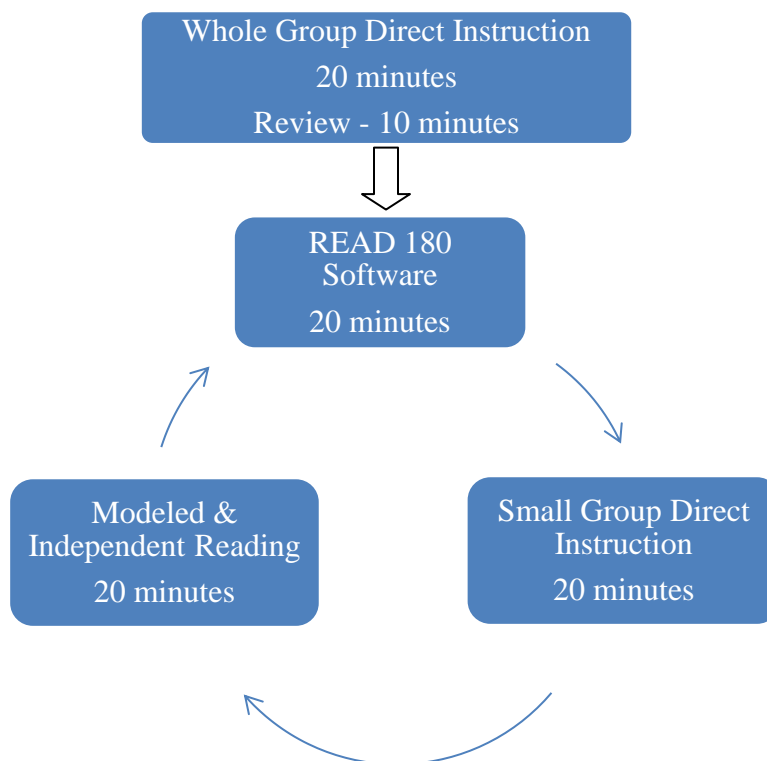
The physical design of the classroom was conducive to the READ 180 program. The 18 computers were located along the perimeter of the 1100 square foot classroom in three separate areas to ensure privacy and independence for each student. In the center of the classroom were four working stations arranged to accommodate up to six students each for general classroom instruction and silent reading. The front of the classroom contained four large tables to seat up to eight students and the teacher for small group instruction. There was an ample supply of READ 180 materials that included R books, L books, and READ 180 library books, and there was a sufficient supply of computers, headphones, novels, and dictionaries for each student in the program.

Site leadership was supportive of the program as consistent technical assistance was offered, READ 180 support materials were always sufficient, and limited professional training through Scholastic was given once per year. In addition, the consultant from READ 180 was in contact three times per year with the instructor to ensure the program was implemented with fidelity and to offer support with materials, assessment, and best teaching practices. The mandatory meetings with the consultant consisted of pre and post observations focused on implementation status, instructional practices, instructional goals, actionable next steps, and data support of implementation practices.

A perpetual READ 180 license was purchased by the school district which the district administrator said demonstrated its commitment to the program. This resulted in more expensive upfront costs but limited future expenditures and ensured READ 180 teachers could move from site to site and implement a common reading intervention. Each of the 22 school sites were allotted a specific number of licenses based on their needs. The only ongoing costs to the district was the annual fee of the READ 180 advisor who provided support to teachers as needed and the expense of consumable supplies which included the R book and L book. Technical support for READ 180 was an additional cost used primarily in the summers to help teachers refresh and reset their programs. Staff development was taught in the summer of 2007 for five days but had been limited since because there were few new READ 180 teachers in the district. New READ 180 teachers were trained via a one day in-service and through the mentoring of other READ 180 teachers in district.



Table 4.1 READ 180 – 90 Minute Instructional Model with three simultaneous rotations



### **Analysis for Research Question One**

The primary focus of this study was to investigate what effect, if any, the READ 180 program had on the affective and cognitive reading skills of at-risk secondary level readers. The findings for this question were derived from an evaluation of the efficacy of READ 180 teaching materials, observations of participants in READ 180, student documents used for the READ 180 program, READ 180 student progress reports, student interviews, a READ 180 teacher interview, and an interview with the district administrator of curriculum. Several factors impacted the perceived effectiveness of READ 180 including teacher fidelity with implementation of the program, student placement into the program, student participation and attendance, and access to READ 180 materials.

### **Evaluation of READ 180 Materials for Affective and Cognitive Development.**

The objectives for READ 180 vary and were dependent on the reading component that was utilized but according to Mrs. Blake, the READ 180 teacher, the ultimate goal of the program was to teach students to use “different strategies that improved their comprehension and vocabulary skills so that they become proficient grade level readers.” According to the READ 180 site representative, Mrs. Hutton (pseudonym), READ 180 promoted active reading through high interest material that strengthened all reading skills needed for academic success.

The affective elements of READ 180 of small group instruction, computer software, and independent reading were each evaluated separately with the ultimate goal to determine the ability of each to engage and motivate students with the READ 180 program. The anchor video, which preceded the R book with whole group and small group instruction, gave an approximately five minute video overview of each unit. The videos were fast paced, interesting and well-designed in discussing the topic while increasing background knowledge for each of the three stories within the nine units. Mrs. Blake’s class used R book level C which was designed for high school students. It contained visuals on each page that included highlighted topic points and pictures, text separated from questions in a column format, large one page graphic organizers at the conclusion of each story, and was consumable to create active student learning. However, the R books were seven years old and did have dated information that was less relevant to students in 2012. The L book contained limited visuals and was designed as consumable worksheets with a focus on grammar and punctuation skills.

The computer software was designed and paced to create affective connections

with students as it contained a video summary, discussion questions, and fluency practice that were all correlated to student Lexile scores. The video portion of the software was of high interest and required headphones for audio output to create independent and attentive students. The independent reading aspect of READ 180 contained a separate bookshelf in the classroom marked by blue crates with four leveled sections of books. Students who read from the top shelf were reading the lowest level book and as the shelves descended the reading difficulty of the book increased. The two affective objectives of independent reading with READ 180 were that students would enjoy the reading process, and they would develop positive behaviors and attitudes of lifelong readers.

The cognitive skills developed by READ 180 materials were also reviewed in relation to the three components of small and whole group instruction, computer software, and independent reading. The R book, which is the primary tool for small and whole group instruction, was divided into nine units with each unit containing approximately 105 reading and vocabulary questions for student response. An itemization of the R book level of questions used in relation to Bloom's Taxonomy so as to determine the level and amount of cognitive skills being developed was listed in table 4.2. 65% of the questions were on the lower spectrum of Bloom's Taxonomy. In addition, just two of the analysis questions required explanation and only five evaluation questions had depth in their responses. As a result, only seven percent of all questions in each unit necessitated higher level thought and justification.

Table 4.2 Itemization of leveled cognitive skills relating to Bloom's Taxonomy - R book

<b>Level of thinking</b>	<b>Number of questions</b>	<b>% of questions</b>
Knowledge	31	30%
Comprehension	36	35%
Application	13	12%
Analysis	3	2%
Synthesis	4	3%
Evaluation	18	18%

The structure of the text in the level C of the R book was also far below grade level which Mrs. Blake estimated to be in the fifth to sixth grade level for her ninth grade class. The result of this was limited cognitive development because of the scope and depth of reading material that was central to the students' development. However, the R book did build upon skills with each successive unit thereby strengthening student understanding of such concepts as summarizing and cause and effect. The L book was used one to two times per week to support the R book and focused on simplistic writing and vocabulary work with five to ten questions per page.

The instructional software's three components (reading zone, spelling zone, and word zone) had various points of cognitive focus. The reading zone was limited to basic comprehension and listening skills as students responded to two questions based on a video. The spelling zone was also basic in the cognitive skills required as students listened and responded to ten vocabulary words while they had 30 second intervals between answers. In contrast, the word zone required decoding and word recognition skills with a sixth grade vocabulary, and the success zone involved summarization skills and recognition of context clues.

The cognitive abilities required with READ 180's third segment independent reading differed based on the required skills which were assessed through daily reading

logs, quick writes, and Reading Counts quizzes. Students self-selected texts or were guided by Mrs. Blake to appropriate selections and self-monitored their understanding of the material. Mrs. Blake implemented self-generated reading logs that required comprehension and analysis skills as opposed to the READ 180 reading logs that only required basic knowledge. Quick writes advocated by the program were used sporadically due to time constraints with the class schedule. The Reading Counts quizzes consisted of ten knowledge questions that demonstrated whether a student read the book but did not contain any middle or high level questions. Fluency required accuracy with decoding skills and was practiced on Mondays when Mrs. Blake had students read aloud during independent reading.

### **Observations**

The affective aspect of research question one was observed through the reading habits checklist (appendix E, third section) to determine the extent to which students were influenced by the three components of READ 180. Through observations, student work on the computers rated the majority of participants as being good to average with their concentration, participation, understanding, enjoyment, and ability to self-regulate as they read through the software. The exception was found in the speaking zone which showed average to poor affective learning taking place. Independent reading elicited a full range of affective learning as all but three students demonstrated good to excellent attention and involvement with reading although it was dependent on the book and guidance of Mrs. Blake. For example, at one time or another during the 16 week study the majority of students also showed poor affective learning during independent reading due to an uninteresting book choice or lack of intervention by the teacher. As a whole, independent

reading created consistent affective learning for the full 16 weeks with six of the 21 students. Observations of these six students indicated constant enjoyment and connection to sustained silent independent reading for 15 minutes or longer. The remaining 15 students were average to good in their affective connection to independent reading with 12 of them being excellent at some point during the semester but without sustainment.

Small group instruction, which consisted of four to six students and Mrs. Blake, brought forth the highest affective learning results. Based on observations (appendices E and F), students were always good to excellent in their concentration, participation, understanding, and self-motivation. In the few instances that participants became off task, Mrs. Blake was quick to redirect their connection to the material. Student focus and output, according to observations and a review of materials, also indicated small group instruction as having the greatest impact on affective learning. For example, students were collaborative and interactive with the material and Mrs. Blake during this process as they asked questions, responded to R book and L book exercises with a near perfect completion rate, and required minimal external motivation to read. One student commented, "It is just easier when Mrs. Blake is right there to help me."

The cognitive learning aspect of research question one was observed through the teacher evaluation form (appendix H), the reading behaviors observation checklist (appendix E), and the comprehensive reading observation checklist (appendix F). During small group instruction, observations indicated the vast majority of students were attentive, used memory, and had adequate visual processing. However, half of the students had difficulty with reasoning skills on higher level thinking questions that included inferring, analysis, and evaluation. These students asked Mrs. Blake for

affirmation of their response or required guidance to a correct response. For instance, one student said, “Is the second sentence of paragraph two a supporting detail?” Mrs. Blake then guided the student with a review of the signal word at the beginning of the sentence and some questioning which confirmed the student’s answer. As a whole, responses were often correct but students were unsure of the validity of their answers.

Mrs. Blake’s consistent adherence to the program and meeting student learning needs increased the cognitive skills of students in small groups. She utilized such comments as “Are your answers justified?” and “Show me the signal word that identified your response” to improve student cognition. According to section one of the reading behaviors observation checklist (appendix E), students in small group rotations were good to excellent with cognitive skills; they followed the central message, evaluated the relevancy of facts, were critical of material, had comprehension of the majority or all of the text, and made predictions in accordance with the structure of the R book. For example, one instructional level student responded in regard to a section of unit two, “Ebola was a terrible disease, but I think Tularemia is worse because it is highly infectious and can be spread through the air. If a new strand of this came out today we’d be in serious trouble.” Even frustration level students were cognitively active during small group instruction.

The writing review, however, at the conclusion of each unit of the R book was the most challenging cognitive aspect for the students as it required problem solving, organization of ideas, analysis, evaluation, and application skills. The majority of students in each small group asked for clarification of directions and concepts or they needed specific examples when they wrote summary notes and the subsequent analysis of

each unit. In addition, the student pace slowed considerably when they wrote a one paragraph review at the end of each 22 page unit with one student commenting, “Writing is always hard.”

Mrs. Blake monitored and assisted students with their writing at the end of each unit but students would have benefitted from additional instructional support to meet the learning demands of her students in order to maximize instructional time although it was unclear if cognitive skills were affected by this inefficiency. For example, frustration level students (table 4.5) took nearly twice as long to complete writing assignments as their peers but consistently produced substandard work. Students were inconsistent in their quality and quantity of output which demonstrated the more challenging cognitive skills of writing even with a READ 180 writing assignment designed around students’ personal experiences. To illustrate, ELL students consistently struggled with the central concept, verb tenses, signal words, and concluding sentences while other students struggled with the central focus of the writing which included sequence of events in unit two and story elements in unit three. The L book was used to support students with these writing skills but its effect was inconsistent.

The cognitive skills used with the computer work were limited when compared to small group instruction as students self-paced and were prompted in each of the three sections of the software. Students’ attention spans were inconsistent as many appeared uninterested with the word zone and spelling zone sections of the program as they repeated words into a microphone for fluency, practiced word recognition, and had 30 second allowances for responses. Yet the reading zone and success zone sections of the software engaged students as it required visualization, memory, and reasoning skills. The



cognitive skills measured in the reading zone included accessing prior knowledge, drawing conclusions, paraphrasing, predicting, and summarizing. Three male students and one female student stated that the reading and success zones were a challenge whereas the word and spelling zones were not helpful and were boring.

Independent reading required students to respond to their daily reading via reading logs, book reports, or Reading Counts quizzes. The reading log utilized by Mrs. Blake was more in depth with its response prompts than the READ 180 generated reading log, and it required more cognitive reasoning. For example, the questions students responded to in written form after each reading session required either a prediction, inference, summary, analysis, or evaluation of the text in relation to theme, plot, or characterization. As a result, students had in-depth responses yet they were inconsistent with their entries in the reading log which affected their ability to do well on the quizzes they took at the conclusion of the book. For instance, Mrs. Blake further pushed students' cognitive skills by allowing them to study their reading logs prior to taking the Reading Counts quizzes, and most students were observed to have utilized the opportunity to review their notes. Her adjustment of this portion of READ 180 was observed to have a positive effect on student cognition even with their incomplete entries.

#### **Evaluation of Student Response to READ 180 Documents.**

READ 180 materials include the R book, the L book, instructional software, and independent reading from the READ 180 library or other books recognized by Scholastic Incorporated. These learning materials were designed to increase the following reading skills: vocabulary comprehension, plot analysis, theme analysis, character analysis, summarizing, sequencing, predicting, comparing and contrasting, drawing conclusions,

analysis of setting, inferring, understanding cause and effect, and comprehending problem and solution.

A review of the READ 180 instructional software data gave no clear indication of overall student progress due to the range of effort, as noted by minutes on task in table 4.3, and the varying comprehension and vocabulary scores. For example, the student effort in regard to time demonstrated a wide range from 17 minutes of completed work to 451 minutes. The student with 451 minutes was on a level two program, or fifth grade level, with a mediocre comprehension score and a poor vocabulary score as noted in table 4.3. However, an evaluation of subgroups indicated that males completed higher level tasks with stronger comprehension and vocabulary scores while females put more effort into the completion of READ 180 software. The lowest performers in terms of effort, level of difficulty, comprehension and vocabulary scores were ELL students.

Table 4.3 Classification of Software Reading Progress of READ 180 Participants

Participant	Gender	Minutes on task	Level	Comp. %	Vocabulary %
1	Male	268	3	80%	70%
2	Male	263	4	82%	82%
3	Male	346	4	88%	81%
4	Male	17	2	37%	25%
5	Male	177	1	80%	90%
6	Male	269	4	80%	100%
7	Male	303	4	80%	100%
8	Male	331	3	90%	90%
9	Male	208	3	76%	84%
10	Male	270	2	87%	67%
11	Male	164	2	100%	100%
12	Male	239	4	100%	89%
13	Male	324	2	96%	100%
14	Male	219	2	60%	80%
15	Female	375	3	82%	77%
16	Female	271	3	50%	40%
17	Female	269	2	75%	69%
18	Female	171	4	75%	25%
19	Female	360	3	64%	64%
20	Female	451	2	78%	44%
21	Female	276	4	43%	86%

The levels of questioning in the R book elicited different responses but Mrs. Blake ensured students completed all questions between whole group and small group instruction. The responses in the R book were simplistic with the react question at the conclusion of each story which required an in-depth response with justification for an application level question. Therefore, Mrs. Blake would ask students in small groups for verbal answers to these questions to obtain the critical thinking needed for that section of reading.

### **READ 180 Progress Reports**

The comprehension skills grouping report evaluated student responses to a range of questions in regard to higher order thinking ability. The skills measured were reading for details, finding the main idea, summarizing, cause and effect, comparing and

contrasting, problems and solutions, making inferences, and drawing conclusions. Questions were based on student placement with software programs and the levels in which they were in. READ 180 maintained a 70% score as the benchmark for student success. However, not one student scored the requisite 70% in any category although four students did achieve high scores of 67% albeit in one category each of the eight categories measured. Mrs. Blake had only taught reading for detail, finding the main idea, and summarizing skills during the course of the study, but not one student met the standard of success dictated by the READ 180 program.

### **Student Interviews**

The students that participated in this study were interviewed for their perspectives on what effect, if any, READ 180 had on their affective and cognitive skills. Student interview questions (appendix K) relating to affective learning focused on key words such as interesting, enjoy, and ideal to elicit an understanding of the emotional connection READ 180 created with the participants. The effect of the cognitive learning of READ 180 was obtained through questions that focused on keywords such as thinking, helpful, improved, and difficult.

According to most male student responses, their affective skills were not positively influenced by READ 180. Typical comments included, “I will not read any books off the READ 180 shelf because they are too boring” and “We just do the same stuff over and over.” When asked to be specific these students continued with generalizations. However, two males, one Hispanic and one Caucasian, both of whom were reading two grade levels below ninth stated that all aspects of READ 180 were interesting and helpful, and both enjoyed the comic based novels from the READ 180

library. Seven of the 14 males believed the R book was well-designed and easy to use. The male students varied on the READ 180 software with 10 of the 14 saying it was “too easy,” “not interesting,” or “wanted to go on the internet” when on the computer. In contrast, the remaining four males enjoyed READ 180 software and believed it made them want to read more. One instructional level student stated, “I definitely have improved my reading because of the computer work. It’s better than a book because it’s in parts. Like the word zone is fun and I know my spelling is better because of my spelling zone work.”

The seven female students were positive and neutral regarding the affective aspects of READ 180. A Hispanic female said, “There is a lot of work in class but I like having a regular schedule” while an African American female stated, “I like to have 20 minutes every day to just read and not be distracted by life.” Five of the female students enjoyed working in the R book because it was “easy to use” but only 2 females enjoyed reading books from the READ 180 library. One student said, “I look on the (READ 180) shelf, but I just think there are better books for me to read. If I have to read, I do not want someone telling me it has to be from that shelf.” Another student said, “I trust Mrs. Blake with the books I read. She told me about *The Hunger Games* which was the best book I ever read.” The READ 180 software was well-received by six of the seven females, and one student said, “The computer work always helps me understand everything in class so much better. I like doing all of the programs because they are interesting and I can go at my speed.”

The vast majority of students enjoyed *Tears of a Tiger* which Mrs. Blake had selected as one of the class novels for guided reading practice throughout the semester.

Every student passed the Reading Counts quiz for *Tears of a Tiger*, but the companion book, *Forged by Fire*, which was written by the same author and was in the READ 180 library, was started by many students but was successfully completed by only four of them. Students were asked what the difference was between the two books and one student summarized the prevalent response, “Mrs. Blake did not read it to us so I just was not into it.” The four students who did pass the *Forged by Fire* quiz agreed that it was as good as *Tears of a Tiger* and would recommend it to their friends outside of class.

Eighteen of the 21 students stated that Mrs. Blake made a difficult class enjoyable although they preferred not to take the class, and three of the 21 said that they had become avid readers because of Mrs. Blake and READ 180. The nine ELL students had varying responses to READ 180, but those in the program for three years or longer had negative responses to most aspects of the class and to reading in general.

Student interviews with the cognitive aspects of READ 180 indicated that the program had varying influences on their thinking skills. Every aspect of READ 180 was difficult and or helpful in one way or another with the 14 male participants. For example, many of the male students thought the READ 180 videos helped them better understand the reading material because they could visualize events prior to reading about them in the whole group and small group settings. The majority of male students also believed they learned more because the classroom was quiet when they needed to learn and thought the structure of the books and the class improved their reading skills even if they did not enjoy reading. When asked for specific skills that challenged them, 11 of the 14 males said the vocabulary section of the R book often had to be reread to be fully understood but that the multiple steps within that section made them think at a higher

level than normal. Four of the 14 males said the READ 180 books stimulated their thinking but the remaining male students had comments such as, “It is just something to do. I do not learn anything when I read a book on my own.”

With the exception of one student, the female participants had a positive view of READ 180 and its affect on their cognitive skills. They commented that the software, R book, independent reading, and group work were easy but helpful because of Mrs. Blake. One student explained, “I don’t really remember what I read but I have gotten into better habits when I read because Mrs. Blake always helps me.” The one female student who had a negative perspective on READ 180 said, “Reading is hard for me and I get put into READ 180 every year. Mrs. Blake is a good teacher but I don’t want to read for an hour every day.” ELL students were divided on the cognitive effect of READ 180. Five of nine students believed that all aspects of READ 180 helped them with their thinking skills, and one of them stated, “I always use the vocabulary we do every week.” However, four ELL students completed READ 180 because they were told the class would help them read better. One student summarized the general consensus among the four ELLs when he said, “It is just another class I have to take and I guess it helps a little” although when asked which part helped he said, “I don’t know.”

### **READ 180 Teacher Interview**

Mrs. Blake believed that READ 180 had an effect on both affective and cognitive learning but the degree of the effect was dependent on many factors including student attendance, their work habits in and out of the classroom, the time of day they received the intervention, their level of interest with specific READ 180 topics, and the support they received from their parents, peers, and other teachers. Mrs. Blake said, “I take it one

week at a time so I can re-teach as needed because my students' cognitive skills need constant support or many of them will forget the mid-level strategies like cause and effect." Mrs. Blake thought READ 180 technology enhanced the cognitive learning process and that the program was supportive of lower level cognitive tasks with heavy questioning on recall and identification, which students regularly completed with high success. However, she felt READ 180 lacked depth with application, evaluation, and creative thinking saying, "Overall, READ 180 helps my students function with basic cognitive skills that they used to struggle with, but the program and the students really struggle with anything requiring critical thinking."

One cognitive skill not properly addressed by READ 180, according to Mrs. Blake, was writing. "Writing should be an extension of reading but READ 180 students only get small doses of it which hinders their critical thinking." She then gave an example of students writing a paragraph on problems and solutions rather than an essay. She also stated that READ 180 had many parts that required pacing which, when combined with time constraints, limited her ability to extend higher level cognitive skills such as essay writing.

Affective learning with READ 180 was difficult because many of the students had negative feelings about being in an intervention program at the high school level. Mrs. Blake stated, "The students, mostly the males, are unmotivated for so many reasons, and it is so difficult to teach someone who does not want to be in a class let alone learn." Mrs. Blake attempted different strategies to reach the affective domain of learning because "if they are not motivated or enthused about learning then nothing I teach them will sink in." In her opinion, the strategies that had the greatest effect with affective



learning included limiting the class size to 20 students, offering books beyond what READ 180 suggested, and varying the levels of the software programs based on individual needs.

Mrs. Blake did have past disagreements with the site administration and its misplacement of students but believed her experiences with teaching English and READ 180 at multiple levels gave her insights that enhanced her students' affective and cognitive learning skills. "READ 180 in and of itself will rarely reach the high at-risk kids like the gang members, at least in my experience, but that is because there are so many factors that influence those kids." Yet Mrs. Blake thought READ 180 was interactive in all three of its domains and therefore improved many students' affective and cognitive skills on varying levels because they were "active and engaged with a purpose."

### **Administrator Interview**

The administrator interviewed for this study, Ms. Avalos, was the school district's director of curriculum and instruction and the supervisor its READ 180 program at all levels. According to Ms. Avalos, READ 180 had been used in the 20,000 student school district at all 22 schools since 2007 because it was "proven through research by the superintendent to be the most viable mass reading intervention." She further stated that the associate superintendent of educational services was a proponent of READ 180 after direct observations and numerous meetings with other Title I school districts because of its "ability to improve every aspect of a student's reading ability, something sorely needed for about five percent of our district's population." The district also presented the plan to implement READ 180 to each of its principals by having them meet with other

schools and READ 180's publisher, Scholastic Incorporated, so that a foundation of understanding and trust in the program would be in place to "maximize the efficacy of the program."

Ms. Avalos stated that the federal government supplied categorical funds to help Title I schools such as Pacific High School pay for the expenses of READ 180 for the purpose of helping readers in the lowest 25% of testing. The funds were allotted after the district demonstrated the inconsistent effectiveness of the multiple interventions used which included reading coaches and the *Voyager* and *Ticket to Read* reading programs. Ms. Avalos said, "READ 180 was implemented because research showed it motivated students to read and improved their reading skills, and it created consistency in the district where there was none before." This consistency, she noted, ensured that it was easier to determine whether any reading intervention was effective which, in her opinion, READ 180 had been although she had no specific data to provide for support. Furthermore, she said, "The consistency of an effective intervention is needed with the mobility in our district. We have many students who move within our district and many of these students are our lowest readers."

### **Analysis for Research Question Two**

The second research question explored the specific teaching strategies of the READ 180 program that were perceived to be most effective with improving the different levels of reading comprehension according to Bloom's taxonomy. Findings were obtained from an evaluation of the READ 180 teaching materials, an evaluation of student progress via READ 180 reports and student documents, observations of the READ 180 teacher and its participants, teacher and student interviews, a READ 180

support provider interview, and teacher evaluations from the READ 180 representative.

### **Teacher Fidelity**

Scholastic required fidelity with the implementation of READ 180 in order to create student success with the program, and Mrs. Blake, the instructor, implemented READ 180 according to the guidelines set forth by the teacher's manual and the READ 180 administrator which were to use data from the READ 180 program to drive individual instruction in all three facets of the program, set goals for students based on data, and promote students based on data. The teacher evaluation form (appendix H) was used during each observation to assess the fidelity of teaching and the fidelity of READ 180 implementation with regard to frequency and method.

Mrs. Blake was limited in the amount of time she could teach the program because of Pacific High School's scheduling restrictions that limited the class to 56 minute cycles. As a result, she taught rotations in 18 minute segments and used a stopwatch for precision before allotting one minute for students to rotate to their next station. Students were compliant with rotations and followed routines within the one minute time frame. In order to ensure time on task, Mrs. Blake would redirect students who struggled to work once they reached their new rotations and consistently monitored students in all three rotations while teaching the small group segment of the program.

Mrs. Blake used the READ 180 R book teaching manual to guide her daily instruction. However, she would ask questions beyond the page in whole group and small group settings to "activate prior knowledge or stimulate their brains," yet she managed to finish each segment without going beyond the rotation's 18 minute time frame. The teaching manual gave sequential instructions that prompted the instructor

through each section with techniques that guided the teacher through modeling, student collaboration, questioning, and scaffolding to strengthen student understanding of the material. Mrs. Blake said, “The program is very prescriptive but once you get the feel for the process it is actually very easy to teach and for the most part effective.” Each observation that took place for this study noted that Mrs. Blake followed the directions within the teaching manual. Mrs. Blake said,

I know it slows the pace down when you cover everything but I want depth over breadth. I would rather complete most of the book while covering all of the important skills that these kids need instead of trying to make sure we finish the whole R book. I think that newer teachers tend to make that mistake for whatever reason, but it is not a race to the finish.

In accordance with Scholastic guidelines, the READ 180 teacher began the semester with an SRI test, a Gates-MacGinitie test, a diagnostic reading test, and a review of student documents to determine the placement of the student within READ 180. Based on a review of each student’s test scores, Mrs. Blake determined the materials and levels of questioning each student would require. She then placed each student into leveled software, showed the students the appropriate READ 180 books that matched their interests and reading levels before she individualized instruction in small group rotations as time permitted.

Mrs. Blake utilized three tests to determine the reading level of each student. Before implementing the READ 180 mandated SRI test at mid-year she followed the protocol of the program by previewing ten SRI based questions in small groups to create test success through student self-monitoring and application of strategies. The SRI preview included reading directions, understanding the call of the question, reviewing all possible answers, and the process of finding the right answer. Mrs. Blake also reminded

students the purpose of the test and what the results would indicate. She then responded to student questions before she gave the students four days to prepare for the three mid-year tests that were used to indicate reading growth.

Based on observations and student data, Mrs. Blake maintained a high level of fidelity on a daily basis with the READ 180 program. For example, a primary element of the program is to have the teacher model the correct strategy for students followed by guided practice and independent practice. The instructional format Mrs. Blake would follow the formula of “I do it, we do it, and then you do it” (modeling, guided practice, and independent practice) which was advocated by READ 180 as the process of learning. According to a mid-year review by Mrs. Hutton, the READ 180 administrator, Mrs. Blake’s instruction and implementation of READ 180 had high fidelity and suggested she be a trainer for new READ 180 teachers.

### **Evaluation of READ 180 Learning and Teaching Materials**

READ 180 had three components that were structured to improve students reading skills: small group instruction, independent reading, and computer software. The R book was the primary tool used in small and whole group settings and was designed to increase the reading and writing skills of students through direct and collaborative instruction. The structure of the R book was in accordance with accepted best practices when teaching reading. It followed the same process of modeling, guided practice, and independent practice for each of the nine units while it utilized the following strategies: activation of prior knowledge through visualization and discussion using thematic text, front loading of knowledge with vocabulary and reading goals, division of material from whole to part, systematic questioning and response, annotation of reading material, use of

graphic organizers to help students visualize and clarify text, multiple readings to create fluency, review of vocabulary in context, and written application of the primary reading concept. In turn, Mrs. Blake incorporated the R book best pedagogical practices but also included think-pair-share to check for understanding, and collaboration to build knowledge and social skills.

The R book vocabulary section was structured to scaffold understanding of text, a recognized high-quality strategy with students on the lower spectrum with learning material. The structure incorporated five parts that consisted of pronunciation, word knowledge, definition, contextual placement, and review. This multi-layered approach was designed to activate prior knowledge and improve decoding and comprehension skills. Students then applied the new vocabulary into their daily reading and writing to strengthen their learning. The L book's strategy focused on application of reading and writing concepts learned from the R book and the topic software such as perseverance, disease, and war. Concepts were limited to one page each and involved five to ten questions to keep material in manageable chunks, an important strategy for students who struggle with multiple aspects of reading.

The software programs followed instructional strategies that individualized learning through multi-media with an emphasis on technology that facilitated learning. First, students were placed into specific leveled software based on SRI test scores. Students then worked through four programs that used various strategies such as cloze reading, word identification, contextual clues, and thematic reading to engage students and improve their readings skills. To stimulate student interest, the programs used the strategy of high-interest topics such as skateboarding and natural disasters in the

categories of science, math, history, geography, and sociology. The follow-up strategy of reviewing student progress was done sporadically in student-teacher conferences although Mrs. Blake monitored student progress at multiple times throughout each week.

Independent reading required students to self-monitor their reading strategies, but it also incorporated instructional strategies from Mrs. Blake centered on modeling, monitoring, and assessment to direct students in the learning process. She also surveyed student interests to direct them to meaningful books which were followed by the completion of daily reading logs as directed by the READ 180 program. The READ 180 bookshelf was user friendly as the top shelf encompassed the lowest level books which contained larger printer, shorter text, multiple visuals, and high interest topics to engage students. As shelves in the READ 180 library moved downward, the books increased in reading length, complexity, and difficulty. Mrs. Blake constantly worked with students to increase their connection to reading. For example, in week three of the study she directed a struggling student to stop reading his current book because of his disinterested behavior over a period of a few days and then redirected him to a book based on his current interests. She said to him, "It is okay to stop reading a book you're not into, but it's important that you read something for enjoyment. I promise you'll enjoy reading so long as we find the right book for you."

In accordance with READ 180, Mrs. Blake used social modifying strategies to improve student success with the program. For example, she leveled small group instruction based on SRI scores, communication skills, personality, and academic ability. She also used a word challenge strategy in whole group to encourage more collaboration with participants. Students reflected on their work at the conclusion of the day and

participation was required with all aspects of each rotation. Also, Mrs. Blake was observed to be firm yet positive when she needed to elicit student involvement, and she was organized with the time and materials used in the course. She stated her goal with any READ 180 instruction was “to create active readers that consistently use appropriate vocabulary and reading strategies.”

### **Observations**

The READ 180 instructor used a mixture of teaching strategies that included elements derived from personal pedagogy and the READ 180 program. She stated this fusion of strategies was done to benefit the direct needs of her students. One method that engaged each of the twenty students was five minute individual conferencing after week eight of instruction which reviewed each student’s current progress with small group instruction while concluding with goals to be attained before the end of the semester. Mrs. Blake discussed small group instruction, independent reading, instructional software, and Lexile levels with each student. She stated post-observation that students were engaged primarily because a relationship of mutual respect had been established and secondly due to students wanting to improve their reading skills.

Observations of student conferences revealed small group instruction was a strong area of learning for all twenty-one students whereas independent reading required the most effort by fourteen of the students based on the limited amount of successfully completed Reading Counts quizzes. During the conferences ten of the 21 students asked follow-up questions which Mrs. Blake said was indicative of their level of engagement with improving as readers. Post-reflection conferencing notes completed by students reviewed successes, struggles, and future focus areas. Four students wrote extensive



answers that indicated depth of understanding, 13 students answered with an effort that signified an effort to learning, and three students gave limited answers to the student reflection form.

Mrs. Blake's instruction with the R book and L book during whole group and small group instruction maintained fidelity with a focus on learner engagement, and she used consistent scaffolding of material to "strengthen their focus on concepts because I always strive to increase student confidence and aptitude." According to the teacher evaluation form (appendix H), she also maintained fidelity by following the teaching strategies of the program which included consistent modeling, checks for understanding, allowance for reading and response time, and an emphasis on the reading goals for each unit and section. Student responses to the routine reading strategies employed revealed 20 of 21 students engaged 90% of the time or greater during small group instruction, yet during whole group instruction the number dropped to 16 of 21 students being engaged 90% of the time or greater. In small and whole group instruction, some students asked for a repeat of directions but were on task soon after.

Observations of the READ 180 instructor demonstrated numerous strategies that created active reading according to the reading habits checklist (appendix E). Mrs. Blake was consistent in explaining and modeling each activity to keep students focused during whole group and small group instruction. For example, when she introduced a new R book story she projected the text on an overhead during whole group instruction for student visualization then followed the text with her finger to guide the participants. This was followed by a cloze procedure and pair-share response. During this phase of front loading and guided practice, five students used the overhead to keep themselves on track

with the assignment while the remainder followed along in their R book. During the cloze procedure, Mrs. Blake would read a paragraph then pause as students would say the missing focus word. Students' verbal participation was good to excellent and their subsequent written responses to preliminary main idea and vocabulary questions demonstrated high attainment of the strategies.

In the first stages of whole group instruction, Mrs. Blake followed a specific routine as directed by READ 180. Students would focus on vocabulary instruction which consisted of pronunciation of the word, rating one's knowledge of the word, discussion, explanation, clarification, and then application. Mrs. Blake would answer questions in this process as students used the glossary and other relevant text to support their learning. Some students worked ahead and may not have fully grasped all elements of the learning process in their haste to finish.

The strategies employed in small group instruction were extensive but the teacher was adept at adjusting the strategies and the pace to students' individual needs. Mrs. Blake stated, "My grouping is based on needs but my interaction with students is an ongoing adjustment. My ELL kids need more work with contextual vocabulary while my higher kids need to use academic language when writing and speaking." An example of this differentiated instruction within small group instruction occurred in the third observation of group two's rotation. The lesson began with a think-pair-share strategy on transitional words and their purpose in reading and writing. Mrs. Blake then directed students through the task, previewed the word bank and modeled a verbal and written response before she focused on specific grammar needed for the assignment. As she monitored student progress she reminded two students to "think of synonyms; look at

your lists if you need to” and the students adjusted accordingly. She then moved next to an ELL student and directed her in pronunciation of a word and had her count syllables in the process. The student said the word, silently counted syllables, and nodded her head at Mrs. Blake when she completed the work.

Mrs. Blake said that all nine ELL students were at an early advanced level or higher with their reading skills based on the district’s ELL assessment chart, but she tailored instruction for them differently. For instance, she structured discussions with basic language, slowed her pace, constantly monitored their progress, and had students repeat their responses with their partners and her in order to strengthen their literacy. When a student had an error, she was quick to correct them. For example, one student misused a verb in pair-share and Mrs. Blake corrected him with, “Miguel (pseudonym), use the past tense and say ‘arrested,’ not ‘arrests’ okay?” As a result, multiple observations confirmed that eight of nine ELL students were consistently engaged and productive with small group instruction.

Other strategies used in small group instruction included students reading individual paragraphs to demonstrate fluency, and every observation showed 100% participation in this regard. Also, some students needed extended time with the R book while other students finished early. Mrs. Blake adapted to this by playing Bananagrams, a form of scrabble, with students who had finished their work early while she helped the other students as needed. Bananagrams were interactive, verbal, kinesthetic, collaborative, non-threatening, and required some critical thought, all strategies that students appeared to enjoy in this context. To save time for the slower students Mrs. Blake clarified the meaning and pronunciation of words rather than having them guess.

She said, “Pacing is very important for the program to be successful. Always keep the faster kids occupied and always keep the rest of them moving forward.”

Mrs. Blake guided students through directions in small groups in an easy, supportive manner and she required students’ verbal and written responses to be in complete sentences to improve their academic awareness. When she employed the note-taking strategy, she began with an overview of “we have been covering sequence of events” then reviewed the concept through student participation. Students were then instructed to take notes in their learning logs in conjunction with completion of their R book graphic organizers which was the culmination of the unit and a multi-step process. With the more complex concept, Mrs. Blake went beyond the READ 180 script to ensure student learning. After modeling her note-taking techniques, she asked, “What did you write? Are your verbs accurate? Give me all of your punctuation marks. Does everyone agree with his answers?”

The approach of going beyond the script was necessary for Mrs. Blake because “The strategies in READ 180 are good but my students need everything like how to get organized, how to use time efficiently, how to use memory, and the list goes on.” An example she used to support students with these skills was found with the learning log which was a journal that contained detailed notes of all elements of class that students could use for review while holding them accountable for their work. Observations revealed 17 of 21 students spent reasonable amounts of time and effort with their learning logs and the remaining four students did minimal work.

### **READ 180 Teacher Interview**

The READ 180 program incorporated multiple strategies to help teachers instruct

students, and Mrs. Blake stated that teaching the program and its strategies with fidelity would “create tangible results.” She also indicated that READ 180 properly trained her in her first two years of teaching the program but due to budget cuts by the school district she had not been able to attend in-depth training sessions since then and had not collaborated extensively with other READ 180 teachers in the district for years. As a result, she believed that her best pedagogical practices were limited to her self-training via the READ 180 website and her personal teaching experiences. In addition, Mrs. Blake said the most effective READ 180 teachers taught the program exclusively. She said,

The effect of self-training is that my students benefit from my commitment to the program, but teachers who are teaching other courses in conjunction with READ 180 do not have the time to properly implement all of the program’s strategies.

The specific teaching strategies Mrs. Blake incorporated for her students included changes to time allotted for specific elements of READ 180. “There are times students need more one-on-one instruction, so when time permits I give those students an extra couple of minutes with whatever strategy best meets their needs.” For example Mrs. Blake described one ELL student who, during free moments of whole group instruction, would work on building his common vocabulary skills with supplemental materials. She further stated that differentiating instruction was time consuming but was the most effective tool in helping high school students improve their Lexile scores and that READ 180 offered multiple strategies in meeting the diverse needs of her students regardless of their background or reading level.

### **Student Interviews**

Mrs. Blake utilized many strategies throughout each day with each segment of

READ 180, but during interviews students focused on small group instruction, annotating, vocabulary instruction, and multiple readings of passages as being most effective with improving their reading skills. However, the one strategy each student said had the greatest impact on improving their reading skills was small group instruction. Mrs. Blake had the groups arranged based on ability and social dynamic with up to six students per group. One student stated, “I learn more in small groups than the rest of the class combined because the teacher always goes slow and makes me think about what I am doing and learning. Plus she is funny and asks good questions.” Another student commented that in small groups “the teacher always makes us work and we are always doing something, but she always helps us with all of our work.”

The READ 180 students indicated that the daily annotating of reading passages while responding to corresponding questions was beneficial to their improvement as readers. One student said, “I wish I could write in the books for all of my classes because everything makes more sense whenever I do it in this class.” Other students commented that annotating the R book helped them identify the main idea, supporting details, and signal words more easily than in regular English classes. An ELL student said the hardest part of learning a new language was trying to understand main ideas and new words but that READ 180 note taking with Mrs. Blake was the best class he had taken in developing his basic reading skills.

The process of learning new vocabulary demonstrated that participants did not always enjoy learning new words but thought it was effective nonetheless. A female student noted that when she did the multiple steps of the vocabulary section of the R book she believed she knew every aspect of the word including the definition, the part of

speech, the correct word form to be used in a context-based sentence, the synonyms, and the antonyms. She said, “It is not fun, but I learn a lot in READ 180,” and a male student said, “Taking notes while I read in this class has really helped me do better in my English and science classes.”

In general, the students thought they used better reading skills and learned more when they reread material using different strategies. The process of whole group, small group, and software reading of the same material with consistent teacher support gave 18 of 21 students the belief that their comprehension skills had improved over the semester. The three remaining students explained that they preferred to read alone in one setting rather than reread the same material three different ways. Other strategies regularly employed by Mrs. Blake that students were indifferent to or did not comment on included pair-share activities, graphic organizers, quick writes, scaffolding, reading logs, and success posters.

### **READ 180 Support Provider Interview**

The school district had one READ 180 support provider, Mrs. Hutton, who scheduled meetings and observations three times annually with Pacific High School’s READ 180 teachers. In addition, she had an open line of communication with Mrs. Blake and could be contacted at any time for consultation on any aspect of READ 180. Mrs. Hutton explained in her interview that most of the questions she received during the school year focused on assessments relating to teaching strategies. She noted that the best READ 180 teachers were committed to student achievement, maintained high expectations for each student, possessed a positive attitude, and believed that all students could become successful readers, but she said this was accomplished only when the

READ 180 program and its strategies were implemented with fidelity.

Mrs. Hutton explained that the strategies used by READ 180 would be effective with any student not reading at grade level and any student lacking decoding skills could be placed into System 44, another reading intervention program for students just beginning to learn the English language. She did not offer specific strategies that were successful but directed me to the Scholastic READ 180 website for “triumphs with the program.” However, Mrs. Hutton did state that students who were appropriately placed into the program based on multiple test scores and teacher observations would improve their reading skills. “The program was designed for frustrated readers, ELL students, those who struggle to participate and complete class work, and those in special education programs who need an intervention.” Mrs. Hutton also said that the critical classroom factors employed by the instructor that strengthen all READ 180 strategies include

strong classroom management skills, an ability to work comfortably with multiple learning groups occurring simultaneously, an ability to work confidently with computers, the aptitude to confer with students about data and goals, the desire to continue learning about reading, and consistent participation in professional development.

Mrs. Hutton said instructors had to commit to the READ 180 instructional model yet be flexible with individual instruction, especially at the high school level. She also explained teachers had to model positive reading behaviors and strategies for students to see the full benefits of the program. In her view, READ 180 was ineffective when there was lack of fidelity with implementation which could occur with time, strategies, rotations, and materials. To offset infidelity she suggested multiple strategies that included the district providing all necessary resources through an administrator who understood the program as well as a site administrator with similar knowledge of READ



180. However, Mrs. Hutton's experience with the READ 180 program taught her that the teacher was pivotal to the success of the program and that he or she created fidelity when they implemented the rotations daily, consistently monitored student progress, differentiated instruction, and had regularly conferences with students.

### **READ 180 Support Provider Evaluation of Mrs. Blake's READ 180 Classroom**

The READ 180 representative made two visits during the semester to have pre and post-observations and meetings with the READ 180 teacher to discuss all aspects of her READ 180 instruction. These meetings consisted of discussions about teaching fidelity, instructional practices, future goals regarding instruction, and review of data supporting best teaching practices. The READ 180 agent noted that small group instruction was challenging but conducted in a supportive environment that fostered learning with the varied population as the notes indicated all small group students were participating and practicing their reading, writing, or verbal skills at any given time. Students were placed into small groups by Mrs. Blake based on ability, temperament, and gender to maximize the learning for each participant. Post observation notes stated that students were engaged and focused during their 18 minute small group sessions with modeling and differentiated instruction being pedagogical strengths. The READ 180 representative also stated that Mrs. Blake's room arrangement was ideal as she had a clear view of her other READ 180 students to monitor them during independent reading and computer work.

The READ 180 representative noted some students would benefit from an adjustment to the READ 180 computer programs so that it correlated with their current Lexile scores thereby improving the overall effectiveness of READ 180. She further

stated READ 180 software segments would be most effective if adjusted upward when students' cumulative performances on comprehension and vocabulary were 75% or better. In her post observation interview, Mrs. Blake placed a priority on adjustment of READ 180 software programming, based on data, in order to maximize future student learning. The READ 180 agent also believed individual conferences between Mrs. Blake and her students not meeting software expectations were needed on a more consistent basis. Mrs. Hutton suggested that Mrs. Blake follow the READ 180 conference template, a six page document, as a source of guidance on this issue but it was not discussed how effective the conference or template would be with improving student learning. Mrs. Blake stated in her interview that time constraints and the realities of being a teacher in her current setting prevented extensive individual conferencing.

The READ 180 representative stated that Mrs. Blake required students to have specific goals for the Reading Counts program which she subjectively noted had a positive effect on reading attitudes because students were held accountable and visually tracked their progress with independent reading. Mrs. Blake responded that her students were successful because of high interest reading materials, many of which were not a part of the READ 180 program, and that progress monitoring of charts and computer data by students was not a true indicator of their motivation to read for literacy improvement. These conflicting viewpoints by Mrs. Hutton (READ 180 representative) and Mrs. Blake (READ 180 teacher) on improving student motivation to read were not contentious yet both were steadfast in their beliefs.

Post observation notes from the READ 180 representative noted outstanding student growth on their SRI test with many students demonstrating a year's growth in

four months of instruction, yet asked Mrs. Blake to retest any student that dropped 60 or more Lexile points. Mrs. Blake stated that the SRI test was flawed because it was created by Scholastic, the publishers of READ 180, and that it often overestimated actual reading growth based on the test's design and length. The READ 180 agent commended Mrs. Blake for tracking students' independent reading progress whereas other teachers struggled to regularly show students their progress. The culmination of these notes indicated that the READ 180 agent believed Mrs. Blake taught READ 180 with a high amount of success because of her adherence to administering the program with high fidelity and because of her dedication to her students learning needs.

### **Analysis for Research Question Three**

Research question three focused on the extent to which students' attitudes toward reading were affected by READ 180. In order to establish an understanding of students' motivations to read, a reading attitude questionnaire (appendix I) and information data sheet (appendix J) were given at the beginning of the study prior to observations of students and evaluations of their independent reading materials. Each of the 21 participants responded to all of the questions with varying effect. In addition, students' use of the READ 180 library and subsequent completion of reading quizzes via the Reading Counts program aided in evaluating the amount of successful reading that participants had with independent reading. The teacher was observed and interviewed during the 16 weeks of the study for fidelity of implementation of READ 180 and for use of strategies to improve the reading attitudes of her students.

### **Student Questionnaire**

The student questionnaire (Appendix I) assessed students attitudes toward reading

at both the beginning and end of the 16 week study. There was negligible change with all READ 180 students in regard to their reading attitudes. As evidenced by their responses to the questionnaire, five of the 21 students had poor reading attitudes, 12 students were indifferent to reading, and four students enjoyed reading.

According to the questionnaire, the five male students with poor reading attitudes preferred not to read for enjoyment or academics which are two primary elements of READ 180. In addition, these students did not regularly use strategies to help themselves with improving their reading ability and they had poor fix-up reading strategies. Each of the five students had home environments that did not promote or sustain reading and all of them were limited to book access within the school setting.

The 12 students with indifferent reading attitudes revealed an enjoyment of reading when the right books or materials were offered and when they had an opportunity to listen to the text through audio recordings. Each of the 12 students sporadically used reading strategies to guide them through difficult text and, in general, would read when required for READ 180 or their English class. Eight of these students did not read at home but enjoyed reading during the independent reading time allotted during READ 180. The four remaining students read at home, had access to books outside the classroom, and read during the independent reading component of READ 180 when they enjoyed the book.

The four students with positive reading attitudes regularly used strategies learned through READ 180 or their English classes and made an effort to read most days of the week at home and in school. Three of the students were second language learners who read well in their native languages while the fourth student had the highest SRI score in

the class and was within one year of reading at grade level. His placement in the READ 180 class was based on poor scores on state mandated tests.

Mrs. Blake stated that, in her experience, the majority of the READ 180 students' attitudes toward reading would become more positive over the full school year as opposed to the first semester because she could institute the proper fix-up strategies, model proper reading skills, and guide students to books that would inspire them. She clarified that the change would be incremental with most of the students but three or four of them would become avid readers after instituting a combination of the READ 180 program and her adapted intervention strategies.

### **Reading Library**

Mrs. Blake stated that most, if not all, of her students would only read what they were assigned, but paid attention to their reading assignments and their response to them to develop reading lists that matched their reading levels and interests. The biggest challenge she faced was making her students consider books they viewed as boring. To alleviate the stigma of boring books Mrs. Blake met with students at the READ 180 library in her classroom for 20 minutes during the first week of instruction to preview the levels of books and to promote readers specific interests. However, she stated in her interview that "fluency and decoding were difficult to assess during the independent reading component," but that student attitudes could be determined through participation as measured by their amount of time on task with reading logs.

Mrs. Blake promoted the lower level books in the first weeks of the semester to promote the READ 180 library because, as students finished books in one to two weeks, they became routine oriented to daily reflections and the completion of weekly or bi-

weekly reading comprehension quizzes through the Reading Counts software. She also utilized literature circles two to three times per week so students could discuss their thoughts on the book while promoting a community of reading. Mrs. Blake identified students' interests by asking them in small groups what they read in the past that they had enjoyed, who their favorite authors were, what topics interested them, and the books they avoided. In small groups, she encouraged her students by sharing powerful books she had read and how they affected her life. One student said, "Mrs. Blake is good about making uninteresting books interesting. She makes me want to look at them and maybe read them."

As students encountered new reading sessions in their R books, Mrs. Blake would pull specific books from the READ 180 library. The first book in this process of promoting independent reading, *Survivors*, was a level 1 book designed for second grade readers which was at least two grade levels below and all students read and passed the 10 question Reading Counts quiz within one week of starting the book. Mrs. Blake stated the low level book was intended to start students off with "a feeling of success" so they would be "motivated with their independent reading." According to interviews and observations, 14 of the students preferred books at or below their level of reading, four struggled to read any level of book, and three preferred to challenge themselves with books above their designated reading level. At the end of the 16 week observation, 12 students were reading books outside the READ 180 library and all 21 had completed at some point at least one book outside the READ 180 program.

### **Observations of Reading Time**

Scholastic, the publishers of READ 180, recommended an allocation of 20

minutes per day for students to complete the independent reading component of their program which should result in 100 minutes per week of independent practice. Instead, students in Mrs. Blake's READ 180 class received 72 minutes per week, Tuesday through Friday, due to the bell schedule at Pacific High School and scheduling limitations. This may have affected the efficacy of the completion rate of READ 180 books or other independent reading books. However, the first 16 Mondays of the semester were designated to reading two English class based novels, *Of Mice and Men* and *Tears of a Tiger*, thereby giving students an additional 53 minutes per week of reading instruction. The 53 minutes of novel instruction were comprised of approximately 25 minutes of reading related instruction that incorporated strategies related to READ 180 and approximately 25 minutes of audio readings of the text. Mrs. Blake adhered to this teaching routine for the duration of this 16 week study and indicated that the second semester would follow the same format. As a result, Mrs. Blake maintained fidelity with the independent reading aspect of READ 180 based on the constraints of her school site by giving them 125 minutes per week of independent reading time.

Students participation during the independent reading sessions varied based on the student and the day of the week. Mondays, the aforementioned required English novel days, had attendance rates above 85% and, based on observations, high participation rates from all students. Mrs. Blake attributed this to high interest reading material, the accompanying audio and video tapes, and her freedom in utilizing strategies that best met the needs of her students. Tuesdays through Thursdays also had consistence attendance but Fridays had an attendance rate of 71% with four at-risk males consistently missing

this day of the week.

Observations indicated that six students, five males and one female, struggled to maintain a focus on reading READ 180 books for the weekly durations of 72 minutes of Tuesday through Friday independent reading rotations. Behaviors that affected fluency and demonstrated one's reading attitude included students numerous rereading of sentences, students being easily distracted by noises and peers, and students maintaining reading intervals of one to three minutes before pausing. During interviews these students said the books they read were boring, reading was a tiring process, and reading anything was too difficult much of the time. Mrs. Blake intervened and redirected these students to read or choose a new book whenever she was aware of their off-task behavior. There was no teaching support from paraprofessionals to aid students during independent reading; instead Mrs. Blake had to monitor each group while teaching the small group component of READ 180. As a result, the at-risk male students maintained their negative reading attitudes as evidenced by limited participation and response on student questionnaires. Student fluency was also limited for the same six students as students were observed to reread pages, look at their peers, and stare out the window when reading independently.

### **Reading Log**

READ 180 advised instructors to teach their students to use daily reading logs with the independent reading module of the program. However, Mrs. Blake chose to use a self-generated reading log that she said, "was more demanding and comprehensive" for her students. The students' responses to the reading logs varied in depth of response and in the consistency of the entries. The reading log allowed for 14 entries and required the



date, amount of pages read, and a response or prediction to the daily reading.

In general, the females outperformed the males in completing the reading logs with consistency and depth. Average female scores on the reading log were 82% and average male scores were 61%. Five of the seven females completed two or more reading logs during the semester whereas four of the 14 males completed two or more reading logs during the same sixteen weeks time period. When interviewed, one female stated that reading logs were important to her reading success because it gave her a goal and it required her to reflect on her reading while another female completed the reading logs because it helped her remember more information with each reading session. During interviews, the male consensus was that reading logs were boring, served no purpose, and were only completed because Mrs. Blake was persistent in keeping them on task.

### **Other Components of READ 180**

Students' attitudes toward reading were influenced by other elements of READ 180. Students' interviews revealed that 20 of the 21 participants believed that small group instruction had a positive effect on their attitudes toward reading because reading made sense after Mrs. Blake's instruction, learning was often adapted to the individual, and Mrs. Blake conveyed a positive feeling about reading that she transferred to her students. Observations supported these student viewpoints and clarified that small groups connected students to a slower pace, re-reading of text, and constant participation all of which resulted in students feeling more confident and connected to reading thereby improving their attitudes.

READ 180 software did not have the same positive effect on students reading

attitude. Only one of the 21 participants enjoyed completing the computer software; the other participants found the vocabulary section too difficult, spelling too boring, the programs too long, and many of the topics not appealing enough to sustain their interests. Observations indicated that nine students were off task at some point during their computer time. Off-task behaviors observed included students taking up to four minutes to begin working, slow responses to questions, quick responses due to inaccurate or non-reading, running a simultaneous program such as video games, and talking with peers. As a result, students' attitudes towards reading appeared to be negative and at their lowest when completing READ 180 software. Four students did state that some of the software was interesting and relevant regarding topics and learning applications, but taken as a whole the majority of students found READ 180 software as another reason to dislike the reading process. As the semester progressed, student behavior with computer instruction improved. Mrs. Blake monitored the students in the computer software rotation and corrected their behavior as needed but was simultaneously teaching students in small groups and monitoring independent readers which limited her ability to consistently redirect students.

Observations of student usage with the R book during whole and small group instruction indicated that all students were engaged with the reading process based upon completion rates, quality of answers, and students' use of teacher directed strategies to improve their comprehension skills. The only time R books were incomplete was due to student absences. This signified that student interest was solid and created neutral or positive reading attitudes during this instructional time yet, according to students, it was only effective because Mrs. Blake used various strategies to engage them such as

anticipatory sets, proximity, humor, redirection, and reminders of their reading purpose.

### **Teacher Fidelity and Evaluation**

The Read 180 teacher excelled at encouraging her students to appreciate reading in an effort to change the negative reading attitudes students had displayed according to the student questionnaire (appendix I) and their placement in the READ 180 program. The first week of instruction included ten minute segments where the teacher discussed books with students in order to raise their interest levels in reading. These books were self-choice but required reading throughout the semester. In her interview for this research Mrs. Blake stated that all reading levels and interests were presented throughout the week to ensure every student became inspired to read. She also said that her past experience with READ 180 taught her to adapt this aspect of the program to her students' needs. Specifically, Mrs. Blake said that students like three to five books in the READ 180 library but often became bored with the books for a few reasons. She said,

Sometimes they tell their classmates not to waste their time with a book or they will like the cover of the book, read a page or two then put the book down. When this process happens they follow the same pattern of feeling disconnected and uninspired.

To alleviate the negative reading attitudes, the teacher mentioned a few high interest books from READ 180 that supported other elements of the program, such as the READ 180 audio library, before she incorporated choices that develop "passionate readers." She stated, "If students do not have a positive reading attitude then I will struggle the whole year with improving their basic reading skills."

Modeling, access to high interest books, and reading aloud to students were some of the strategies Mrs. Blake used to encourage students to read at the beginning of the year. For example, she showed students a copy of the book *Speak* from the READ 180

library and activated their prior knowledge by telling the students the premise of the book before she read the back cover to them. She then played the audio tape of the first two pages. Two girls in class said they wanted to read *Speak* as their first novel of the year. Mrs. Blake then told students of her favorite book from the last year, *The Hunger Games*, and asked the students to raise their hands if they had heard of the book or seen the movie. One student said the book was too long to read. Mrs. Blake proceeded to give her students an overview of the book before she said there were only ten copies that could be read. The notion of supply and demand created twelve readers for the ten books. *The Hunger Games* is not part of the READ 180 library. She also implemented other high interest books outside of the READ 180 library to minimize the amount of negativity that many of the READ 180 books had on students reading attitudes. However, she did preview with students the various READ 180 books and their benefits to improving reading skills.

Mrs. Blake stated in her interview that a combination of motivational methods had the greatest impact on changing the negative and indifferent reading attitudes of her students which include her reading aloud, movie to students, story mapping, and book shares. Mrs. Blake said,

My attitude makes a difference. I am energized by books and I convey that to them. The READ 180 program will make some students readers outside the classroom but probably only one out of five. We will read six novels during the year and that is the most many of them have read in their entire lives and they will enjoy a couple of them.

Mrs. Blake noted that the six novels were read daily in class to ensure student success and was “thrilled each year whenever a few of the students became readers beyond the classroom” because it gave them a chance to succeed in academics which in

turn motivated them to regularly use the core learning skill of reading. She also stated, “Most of them read because I am making them. The ones I do affect are because of a specific book.” She also thought that “a lot of the students will enjoy an author or book like Susan Draper’s *Tears of a Tiger* or *The Hunger Games*. They then want to read Draper’s *Forged by Fire* or the rest of *The Hunger Games* Trilogy.” Mrs. Blake continued, “That is when I know that I have had a positive impact on their reading attitude which is tremendous when you look at where they were entering the class and where they are when the year is done.”

The instructional model Mrs. Blake used to motivate her “reluctant readers” began when she gave her students a purpose for each assignment which was followed by a daily structured learning environment that focused on expectations for all students of consistent work habits and implementation of reading strategies. She then required students to be “active readers regardless of whether the focus is on independent reading, small groups, or computer work.” She monitored their behaviors and habits as much as possible within the constraints of teaching and managing the three reading rotations at the same time.

Depending on the lesson, Mrs. Blake closed her instructional model with assessments and students self-reflections that centered on strategies learned, reading enrichment, or comprehension skills. According to Mrs. Blake, this routine based learning made the reluctant readers establish solid work habits that then created the opportunity to implement individualized skills and specific books to each student in the “hope of creating a person who cannot wait to read and see its power in their lives.” Students responded well when prompted in small groups, but whole group reviews

required Mrs. Blake to circulate, redirect, and alter directions for some of the students.

In accordance with the READ 180 program, as the semester progressed Mrs. Blake adapted to students needs in numerous ways whenever they struggled with independent reading. Based on observations, interviews, and READ 180 progress and reading reports, Mrs. Blake would guide students to audio books or start them at books below their Lexile level to motivate them. In one instance, a female Hispanic student had failed two consecutive Reading Counts quizzes even though she had completed reading logs and was considered to be an active reader based on observations. Mrs. Blake wanted to instill confidence in this student so she had her read *A House on Mango Street* because it was “culturally relevant, a lower Lexile level, and could be read in small increments” due to its structure of one to three page vignettes. In addition, Mrs. Blake let this student use her reading log to take the follow-up quiz which resulted in a passing score.

Mrs. Blake was consistent in helping students improve their independent reading skills throughout this study. Nine of the 21 students consistently used reading logs, quick writes or graphic organizers during the semester to supplement their Reading Counts quizzes. She also printed out the Reading Counts quiz questions for students that failed their first two attempts to help them better understand the types of questions they missed. As a result, student success on these quizzes, which was an indicator of how well they were reading independently, was mixed. Students stated that printing out their missed questions helped them focus on specifics such as character or topic but did not increase their enjoyment of reading. Three students consistently failed quizzes and refused to use supplements which Mrs. Blake labeled as “students that can’t be reached regardless of the intervention.”

### **READ 180 Summative Reports of Reading Counts Program**

The completion rate of books read, as evidenced by students successfully passing Reading Counts quizzes at a rate of 70% or better, revealed the varying success of READ 180 on the reading attitudes and independent reading habits of the participants. In the 16 weeks of this study, students took 147 reading quizzes for an average of seven books per student. However, students successfully passed 86, or 59%, of the Reading Counts quizzes for an average of four books per student. The disparity between participation was vast with one student completing a class low of two books and another completing a class high 17 books. The student who completed 17 books failed seven quizzes with books that were far below their reading level. Mrs. Blake indicated that some students fall into the category of “reading for volume without comprehension” which “is important for building fluency and maintaining the motivation to read.”

One motivational tool that Mrs. Blake found effective with improving student attitudes was a reading chart with student names that monitored independent reading progress as determined by the successful completion of Reading Counts quizzes. When a student scored the required 70% with a 10 question quiz they received a star sticker that they then placed adjacent to their name on the chart. Students became competitive with the process which resulted in six students reading numerous books, even with low comprehension, in an effort to lead the class in books read. Three students had minimal stars and were chided by some of their peers for their lack of effort. Mrs. Blake stated that the dynamic of derision had little effect on the non-readers as they were indifferent to reading more or less.

The library checkout rate, whether through the classroom’s READ 180 library or

the school's library, indicated that 17 of the 21 students were consistently engaged in reading a book during independent reading. Mrs. Blake said, "The key is to find them the right book so they find that internal motivation." All 21 students read and passed the Reading Counts quiz for *Of Mice and Men* and *Tears of a Tiger*. Students commented that they enjoyed these books because of the audio tapes, the regular interaction and reflection with Mrs. Blake's guidance, and their connection to interesting stories with rich characterization. These two books combined contained over 54,000 words which the teacher said was a testament to the students' capabilities, but that it took a slower pace and numerous individualized strategies to keep students focused on successfully completing the two novels according to READ 180 standards.

Students' interviews revealed follow up procedures requiring reflection such as Reading Counts quizzes, reading logs, or writing summaries were difficult. Students stated that these reflections were boring, did not help them read better, took away their reading time, and discouraged them from wanting to read. Mrs. Blake would have book discussions to encourage reflection and critical thought to alleviate some of these negative student attitudes. 15 of the 21 participants were regular contributors during these book discussions and reflections for *Tears of a Tiger* which every student passed via the Reading Counts quiz. In contrast, six of 21 students contributed to book discussions and responded regularly to the required reflections for the book *Survivors: True Stories about Real Kids* and as a result, nine of the 21 students passed the Reading Counts quiz. *Tears of a Tiger* has a 700 Lexile and is to be read by students at a seventh grade reading level whereas *Survivors: True Stories about Real Kids* has 390 Lexile and is designed for a second grade reading level. Mrs. Blake said this was the strongest



indicator that the difficulty level of a book was secondary to the interest level of the book. “READ 180 students can read challenging books but I have to get them wanting to read, which I can always do, but the book must sustain their interest. Every student passed the *Tears of Tiger* quiz for that reason.”

### **READ 180 Teacher Interview**

Mrs. Blake taught READ 180 in the six years prior to the observations for this study and used her own teaching experiences and her training with the READ 180 program to build motivational tools that improved her students reading attitudes. She stated that there were “so many nuances to the program that benefit my students but it is extremely time consuming to incorporate all of the tools that READ 180 suggests to improve their ability to want to read.”

Mrs. Blake was adamant that ninth grade was the last year students should be able to take READ 180 whereas Scholastic stated that the program could be taught through twelfth grade. Mrs. Blake said her experience is that students in READ 180 can get “burned out” if they have had the program for multiple years but that it can be effective in changing their attitudes provided they are taught according to individual needs. However, she noted that the majority of the students in READ 180 “recognize a stigma for being placed in the program because they cannot read as well as their peers and some do not put forth effort for the first couple of weeks which is reflective of their attitude toward reading.”

Mrs. Blake connected attitude and effort with her students but noted there was distinction between the two based on context. She said students who detest reading “clearly have poor attitudes toward it” yet her goal was to make those students put forth

an effort and to help them understand that reading is a process. When students with poor reading attitudes worked hard to be better readers she considered that a success. She also thought of herself as an agent of change whenever she instilled a positive reading attitude or new reading strategy with a reluctant reader. The methods she used to instill an improved effort included changing the time allotted for independent reading, taking students to check out books from the library rather than utilizing READ 180 books, adjusting the software programs based on individual needs and interests, and manipulating group sizes.

READ 180 affected the reading attitudes of the participants in other capacities as well. Mrs. Blake noted, “The R books need to be updated. Students are reading the same articles for the seventh year in a row and they do not always see the connection to current events.” However, she said teachers who were committed to the READ 180 program would see changes in the reading attitudes of students though it may be incremental with students becoming neutral rather than negative toward reading as long as the teacher was committed to individualized instruction and used best pedagogical practices. As a result, Mrs. Blake believed she had a limited amount of time left teaching READ 180 due to the challenge and stress of trying to change the attitudes of reluctant readers. “I have an expiration date because I get the unmotivated students; it is one-sided trying to get students to respond. I am in year seven and cannot imagine doing this for more than 10 years.” She then gave examples of three teachers who were “excellent READ 180 teachers” but quit teaching or asked to transfer after two to three years because of “stress and exhaustion.”

### **Analysis for Research Question Four**

Question four of this case study researched the perceived effectiveness of READ 180 with improving the comprehensive reading skills (multiple levels of comprehension, vocabulary, and application of reading strategies) for at-risk high school freshmen. Findings for question four were obtained from READ 180 summative reports, multiple test scores, observations of the READ 180 classroom, READ 180 student materials, student interviews, a district administrator interview, and multiple interviews with the READ 180 teacher.

#### **Test Scores**

The SRI was comprised of 20 inference based questions and was given four times each academic year. Questions were taken from a variety of textual materials and were arranged in short paragraphs with mid-level vocabulary and four multiple choice answers. Based on my experience, the SRI test was not an accurate assessment of student reading levels because it was not comprehensive; it did not measure fluency, it focused on one form of questioning, avoided higher level synthesis and evaluation questioning, and did not contain questions on word analysis, main ideas, or conclusions. While the exit criteria from a READ 180 course was determined by the school site, the SRI was valued as the dominant factor in determining a student's reading level with the READ 180 program.

Mrs. Blake and her students were observed to have followed READ 180 testing implementation and protocol. First, students spent one day reviewing test taking strategies where Mrs. Blake guided them in small groups. In this process students reviewed previous test scores, missed questions, how to read directions, identification of

important ideas, elimination of incorrect answers, and the use of three question skips. She then reviewed with students ten inferential based questions from previously released tests and had students apply the testing strategies through her direction before they chose an answer with a justification of their choice. Mrs. Blake set aside two days for SRI testing without rotations so students would focus exclusively on the test. She also reminded students the test would take a minimum of 20 minutes to ensure integrity. Two students finished the SRI test in under that time and she made them retake it. Results of the first two tests are listed in table 4.4. At the conclusion of the test, she had a conference with students to review their scores and the goals for semester two.

Table 4.4 Classification of SRI test scores and READ 180/English Grades

Participant	SRI pre/post	Growth met	R180 Grade	English Grade
1	629/925	Yes	D	F
2	981/1023	Yes	A	F
3	761/762	No	C	C
4	587/Inc	No	F	F
5	219/367	Yes	F	F
6	872/932	Yes	C	D
7	930/869	No	C	C
8	779/785	No	C	F
9	861/766	No	B	D
10	470/647	Yes	D	F
11	915/919	No	C	D
12	929/975	No	A	C
13	575/801	Yes	A	D
14	494/585	Yes	A	D
15	798/937	Yes	A	F
16	779/Inc	No	B	F
17	508/547	No	C	F
18	850/819	No	B	D
19	672/671	No	A	F
20	549/454	No	B	F
21	826/987	Yes	B	F

### Observations

The effect of READ 180 on the comprehensive reading skills of its participants

was observed through the reading behavior observation checklist (appendix E), the comprehensive reading observation checklist (appendix F), the reading level observation rubric (appendix G), and the teacher evaluation form (appendix H). Multiple observations revealed that Mrs. Blake's instructional techniques and her use of content matched the READ 180 program which resulted in high fidelity with the program's use.

Section one of the reading behavior observation checklist (appendix E) demonstrated that 19 of 21 students comprehension skills were good to excellent in whole and small group instruction. These students' general comprehension skills demonstrated the following: understanding the central message, evaluation of facts, following the organization of the text, making predictions, understanding the purpose of the reading, and applying information to create new ideas. Students asked questions and gave answers in a structured format with all but one student responding appropriately. Students accurate responses included, "This article is mainly about gang life" and "The main idea of the section is it is tough to get out of gangs once you join them." The two students who did not demonstrate consistent comprehension were distracted and uninterested in the material as they were observed to go through the motions of minimal effort with completion of R book and L book materials. One reluctant learner asked to go to the bathroom when Mrs. Blake requested a response to a reading comprehension question.

The second component of vocabulary comprehension, which was observed throughout the 16 weeks (appendix E, section two), encompassed knowledge of technical function of words (syllables and parts of speech), use of context and structural analysis, use of glossaries, and recognition of relationships among words. Mrs. Blake was

thorough with implementation and meeting individual needs in whole and small group instruction. As a result, all 21 students were engaged and meeting expectations with the vocabulary goals although the good to excellent work may have been affected by its having been conducted at the beginning of class in short five to ten minute increments. One example of the success with vocabulary was found in an exchange between Mrs. Blake and Jesus, an at-risk student who was a reluctant learner with other phases of READ 180. Mrs. Blake said, “Jesus (pseudonym) what is our target word for this section and what does it mean?” He replied with a comprehensive answer, “The target word is contagious. I rated it as a two because I know it but don’t use it. It’s an adjective, and it means something that can be passed to others, like a cold or something.” He then read an example sentence with the target word. This type of vocabulary response was consistent with each student in READ 180.

Mrs. Blake’s ability to sustain student interest and focus on multiple skills strengthened student knowledge with comprehensive reading. The comprehensive reading observation checklist (appendix F) determined specific comprehension skills that as a whole equated to comprehensive skills required to be an adept grade level reader. The comprehensive skills evaluated student usage of multiple word identification techniques, their knowledge of word meaning, multiple comprehension skills, reading study skills, silent reading skills, and oral reading ability. While Mrs. Blake was skillful at improving the comprehensive reading skills of students, fewer students were adept at all phases of comprehensive reading with many struggling in either critical reading, independent study skills, or silent reading.

Mrs. Blake was thorough in her instructional practices to build comprehensive

reading skills. In multiple observations of small group she would begin with having the students number their paragraphs before she assigned each of them a paragraph. She said, “Tania (pseudonym), would you read the second paragraph?” She then clarified the purpose of the reading was to understand sequence of events followed by a critical thinking question of, “How do we know when things are in a sequence?” However, students scanned for 25 seconds with no response to which Mrs. Blake said, “Where are we going to find that answer? Does anybody see it?” One student regarded as capable hard-worker read her response which was inaccurate. Then a second student read his incorrect response before a third student answered correctly. Mrs. Blake said, “Good job Zach (pseudonym). Everyone should write that down right now in complete sentences by rephrasing the question as an answer.” As a whole, this observation demonstrated Mrs. Blake’s guidance, patience, and ability to help her students, but it also showed how good students had difficulty in being able to give a quick accurate response to a passage that required some critical analysis. This was a common exchange with higher level questions throughout the study.

The approach of going beyond the READ 180 script was necessary for Mrs. Blake to build the comprehensive reading skills of the participants. She said, “The strategies in READ 180 are good but my students need everything like how to get organized, how to use time efficiently, how to use memory, and the list goes on.” An example she used to support students with these skills was found with the learning log which was a journal that contained detailed notes of all elements of class that students could use for review while holding them accountable for their work. The learning logs encompassed many skills needed for comprehensive reading including, note taking, analysis, evaluation,

paraphrasing, predicting, and summarizing. Observations revealed 16 of 21 students spent reasonable amounts of time and effort with their learning logs and the remaining five students did minimal to no work.

### **READ 180 Student Documents**

A review of the students R books, L books, learning logs and portfolios of collected work revealed a balance of learning with mid-range material. Student comprehension of all three rotations of READ 180 material was observed through the reading level observation rubric (appendix G) with student classification noted in table 4.5. The materials created three observed levels which were independent, instructional, and frustration. Six students achieved independent status because they read the materials easily with confidence, demonstrated interest in the material, understood their reading purpose, had a positive behavior, and maintained high word recognition and comprehension skills. 12 students retained instructional status with comprehensive reading skills because of neutral or positive behavior, were challenged but fairly successful with the material, sought regular help from Mrs. Blake, and made some errors with word recognition and comprehension but without defeat. The remaining three students were frustrated with most aspects of READ 180 materials and at times refused to read, avoided intonation when reading, had poor self-regulation, and had consistently weak word recognition and comprehension skills.



Table 4.5 Classification of Reading Level with READ 180 Materials

<u>Participant</u>	<u>Gender</u>	<u>Observed Comprehension Level all Materials</u>
1	Male	Instructional
2	Male	Independent
3	Male	Instructional
4	Male	Frustration
5	Male	Frustration
6	Male	Independent
7	Male	Instructional
8	Male	Instructional
9	Male	Instructional
10	Male	Instructional
11	Male	Instructional
12	Male	Independent
13	Male	Independent
14	Male	Instructional
15	Female	Independent
16	Female	Instructional
17	Female	Frustration
18	Female	Instructional
19	Female	Instructional
20	Female	Instructional
21	Female	Independent

As a result, observations demonstrated that two students were on a path to transfer out of READ 180 while two other students were misplaced in the program and would have been better served in an alternate intervention. The remaining 17 students were successful and challenged with READ 180 materials and were best served with the intervention.

### **Student Interviews**

The READ 180 participants had a wide range of opinions in regard to how effective the program was with improving their comprehensive reading skills. According to the SRI test, the upper half of students who improved the most in the 16 weeks of the study had positive or indifferent opinions of the program. Some students noted that they read actively and with a purpose while others said they read better but still struggled with

all aspects of reading. One student stated, “I guess I am a better reader because of this class but I am behind where I should be.” When asked which part of reading was most difficult he said, “Any writing we do at the end of each section is tough. It is hard for me to put the reading into my own thoughts.” Another student thought that READ 180 made her more successful in her other classes because she knew how to read directions, understood what she was reading and why she was reading it. She said, “I take better notes. The learning journals we use keep me organized. I think when I read now.”

Students who demonstrated the highest SRI gains had other important opinions of READ 180. One ELL student who spoke four languages said, “Everything is easy and helpful; the software is great. I think the spelling and small reading passages help me the most.” Another student who believed READ 180 had improved all of his reading skills said he learned most from the “big and small groups; it gives me a chance to hear the story twice. I think this class made me make an effort to improve as a reader.”

Most of the students in the lower half of SRI growth were more specific in the difficulties they faced with READ 180 but in general believed the program helped them improve their overall reading skills. Many of these students were in their second year of READ 180 and had such comments as “I think the program has helped me but the vocabulary is tough and I read stuff over and over to get it,” and “Mrs. Blake enjoys teaching us so I enjoy learning, but I could learn more because she needs help teaching when we go into our stations.” Other students noted that some programs such as the software were too easy and “a waste of time” while another said, “I don’t understand the questions in the R book. I always have to ask the teacher for help, but her help is always there so I do learn a lot.” A female ELL student noted that “Word zone does not help me

and the R book is only good when the story is interesting, but I am a better reader.”

The lowest SRI performers made negative comments about READ 180 and or reading in general. For example, one ELL student said, “I don’t make an effort to read better” and another said, “All of READ 180 is hard. I am in my third year and I still don’t get it.” Another participant refused to make an effort at times and said, “I think they think I am stupid.” These students stated that small group time with Mrs. Blake was helpful but other components of READ 180 were too challenging for the program to be of full benefit. One ELL male participant stated, “All of READ 180 is hard. Sometimes Mrs. Blake will speak to me in Spanish which helps, but the writing is always hard. I try sometimes to do better, but sometimes I don’t want to read.” One female student was critical of all aspects of the program when she stated, “I enjoy nothing about READ 180. I did it for three years. Nothing is difficult about it, it is just boring.”

Table 4.6 Classification of Demographics and Attendance of READ 180 Participants

Participant	Designation	Absences	Tardies
1	ELL, MI	6	0
2		1	0
3		3	0
4	ELL, MI	0	0
5	ELL, SPED, MI	2	4
6	MI	3	2
7	ELL, MI	1	0
8	ELL, MI	6	0
9		0	0
10	MI	8	0
11	MI	3	6
12		2	0
13	MI	0	1
14		4	0
15	MI	1	1
16	ELL	10	0
17	ELL	2	0
18	ELL, MI	5	1
19	MI	7	1
20	ELL, MI	7	0
21	MI	1	9

Independent reading received criticism from more than half the students with many saying it was hard to find a good book to read every day even though they enjoyed one or two books throughout the semester. A female student said, “I’m not reading anything right now. Books on the blue shelf are boring.” Another student was asked about his independent reading and he replied, “I don’t remember what book I’m reading right now.” However, some students with a full range of SRI scores enjoyed independent reading and its contribution to their comprehensive reading skills. One stated, “I like to read from audio tapes or share reading with a friend. That has probably been the biggest help for me this year.”

Mrs. Blake was the critical factor to most of the students’ success with READ 180. A male student said, “The teacher works with me one-on-one a lot and then it is

always easier.” Another male said, “She always has us take notes, but when I take notes reading is much easier.” An ELL student in her first year of READ 180 noted that “small group is best because it is easy to listen, and the teacher is the best because she finds out what I need and helps me.” One third year READ 180 said Mrs. Blake was better than his previous teacher, “I don’t like to write but R book writing is good for me and note-taking in this class is good too, but only because she makes it very easy for me.” One first year READ 180 student supported the value of Mrs. Blake, “I try to do better with my effort but I have three English classes (ELD, READ 180, College Preparatory English) this year. This class helps the most because of the teacher. I am not a reading person but she reads to me and I learn.”

### **Administrator Interview**

Ms. Avalos (pseudonym) believed that READ 180 was effective with improving the comprehensive reading skills of high school students but made the decision to limit READ 180 to only first year high school students. Scholastic designed the program to work for all four grade levels of high school, but Ms. Avalos said the district decided students had limited elective credits needed to graduate from high school and taking four years of READ 180 as an elective was an ineffective use of the program and of the students’ time. Ms. Avalos explained:

One issue with READ 180 is the students who have gone through all of the books and materials but still are not at grade level you ask, now what? You do not want these students stuck in the same intervention with the same material year after year, especially at the secondary level. At that point you have to ask if it is time to have that child on an SST (Student Study Team) or an IEP (Individual Education Plan). You also have to ask, what else is going on with this child that this excellent reading intervention, READ 180, has not done? It is not the fault of the program; it is just the specific issues that may occur with some of the student population.

READ 180 was designed to improve all reading skills but Ms. Avalos said its effectiveness was skewed if there were fidelity issues with the teacher's implementation of the program. She stated, "If you pick and choose and then supplement then there are problems." The biggest impact she noted, outside of teacher fidelity, was the amount of time the students use the program. "READ 180 must be used for the designated minutes daily for maximum effectiveness if test scores are to be improved. Students will not get out of the intervention or make grade level gains without consistent time in the program."

Ms. Avalos noted several critical factors for a successful READ 180 classroom. First, she believed READ 180 was more effective with elementary students because there were less reading issues to resolve than high school students. She also explained that READ 180 teachers were most successful when they had strong language arts backgrounds, an in-depth understanding of the reading process, and had experience working with at-risk youth. In addition, Ms. Avalos noted that she preferred READ 180 teachers who excelled at following programs with fidelity, could consistently monitor student progress, and could manage the numerous assessments and paperwork because "all of those things make a difference in the success of READ 180 and the kids."

According to Ms. Avalos, teaching READ 180 at the secondary level was "a difficult assignment" and required an instructor "dedicated to their students' success because they are tough kids." She also said that READ 180 teachers at Pacific High School "know how to make things work for each student" and that READ 180 did help secondary ELL students whereas many of the other district reading interventions had failed. "The reality is you don't want students in READ 180 for five years. It should do its job in two years meaning the student is at grade level in all reading areas within that

time.”

### **READ 180 Teacher Interview**

READ 180 was divided into three segments that require teaching fidelity in order to potentially reach the effects that Scholastic claims the program can attain. Mrs. Blake supported this point, “READ 180 will improve all of the primary reading skills of students if there is a commitment by the teacher to use the program and they know how to be successful with a difficult student population.” However, she believed students were limited to improving up to two grade levels in one academic year with a realistic goal of a year and a half of improvement. She said this was important when considering the majority of students prior to entering READ 180 were falling behind each academic year rather than maintaining or improving as readers.

The school site used multiple forms of measurement to determine the growth of each student because it was determined that the READ 180 SRI test was not accurate in fully assessing the comprehensive skills of its participants. To illustrate this point, Mrs. Blake told the story of one ninth grade student from 2010 who, by the end of his first READ 180 semester, had increased his SRI score by 120 points, or one grade level, and that his comprehensive reading score (Lexile) was at grade level which indicated his readiness to transfer out of READ 180. At the same time, his parents had their son being tutored by Sylvan Learning Center for a diagnosed reading disorder. The parents had him retested by Sylvan who stated, based on their comprehensive test, that he was reading three grade levels below ninth. As a result, the site began using CST scores, recommendations from English teachers, Gates-MacGinitie test scores, SRI scores, and a diagnostic reading test to determine the true comprehensive growth of READ 180

students. Mrs. Blake said, “One design flaw with READ 180 is the inaccurate SRI tests because they are not comprehensive, but fortunately the district has adapted a model that gives us a better picture of where READ 180 students are based on a number of determinants.”

Mrs. Blake thought the structure of READ 180 and its learning materials were comprehensive in a “simple way” and well designed with their consistent focus on previewing, vocabulary development including spelling and phonemes, using specific reading skills, and multiple forms of review. This simple structure was “all these students can handle in the first semester but they need more by the springtime.” However, she thought READ 180 would impede their long term ability to read at a high level. She envisioned many READ 180 students being caught in menial jobs because of their limited reading skills but knew that READ 180 offered them a chance to complete high school and “perhaps be able to function in a literate driven society.” She said, “For example, READ 180 focuses on paragraph development for reviews of reading concepts but these students need much more than that, they need an essay.”

Mrs. Blake stated that READ 180 was most effective with students at least three years below grade level because of its focus on basic skills and strategies. She thought the data supported the greatest comprehensive student growth for the students that were reading three to four levels below grade as opposed to those in one to two levels below grade. In turn, she said, “Students who are misplaced into the program, which can happen for any number of behavioral or academic reasons, will not see as much of a benefit from the program.”

Mrs. Blake thought the best intervention for struggling readers who had a



multitude of needs was accurate identification of students at the end of the prior academic year so that they could be correctly placed by the fall of their freshmen year. This would require closer work with the district's middle schools that feed into the high school, however, limitations with time and money delay the placement process which lead to students moving in and out of READ 180 during the first week of the school year. As a result, a valuable week to teach struggling readers was lost to "inefficiency by the system in place" as students were tested and moved in and out of the class. However, as a whole she felt READ 180 worked for most types of struggling readers when properly implemented. "READ 180 works for most students when a teacher is properly trained and wants to be there. Teachers who do not understand how to teach it or do not like at-risk students will not help these kids."

### **Conclusion**

The findings in this case study established the impact of READ 180 on the affective and cognitive skills of at-risk high school students. READ 180 was utilized for only ninth graders at Pacific High School and had mixed results even with Mrs. Blake's strong adherence to the program. The four research questions that explored this topic used multiple forms of data that included observations, interviews, and review of student documents to establish these findings. Chapter five contains an overview of the problem, a summary of the findings, a discussion with implications, limitations of the study, and future recommendations are discussed.

## CHAPTER FIVE: DISCUSSION

### Overview of the Problem

High school students reading far below grade level have had numerous reading problems that often require multiple interventions over an extended period of time. Effective reading interventions at the secondary level require programs that meet the multitude of needs for these at-risk students and instructors with the knowledge and ability to meet the individual literacy needs of these students. In turn, READ 180 emphasized the improvement of reading comprehension skills through structured curriculum, effective teaching strategies, and the use of various course specific materials and resources. Pacific High School and other Title I schools have often adopted a variety of reading intervention programs such as READ 180 in an effort to raise the test scores of their most reading deficient students, yet these students may revert back to poor reading habits once the intervention has concluded because they lack an attachment to reading and its process. This study considered the curricular design of READ 180 as well as the varying student factors that influenced their participation in this course. To improve literacy, reading intervention programs such as READ 180 should be assessed so that students receive the best reading instruction not only for academic purposes but for personal enrichment as well.

The purpose of this qualitative case study was to explore what impact, if any, the READ 180 program had on the affective and cognitive reading skills of 21 at-risk ninth grade students at Pacific High School. The guiding questions with a brief summary of findings are as follows:

1. *What, if any, impact did the READ 180 program have on the affective and*

*cognitive reading skills of at-risk secondary level readers?*

There was limited impact with the READ 180 program on the affective skills of the participants. The vast majority of students' approach toward reading remained pessimistic, neutral, or generally unaffected by READ 180. This demonstrated the importance of READ 180 teachers needing to be exceptional in their ability to motivate, teach, and endure the tribulations associated with teaching struggling secondary level readers. The impact of READ 180 on the cognitive skills was also limited. READ 180 lacked higher order thinking questions and material necessary for accelerating the literacy skills of high school students reading far below grade level. Furthermore, the students' demonstration of reading ability through writing application as used in READ 180's program was well below the state's ninth grade learning standards.

2. *What specific teaching strategies from the READ 180 program were perceived to have had the greatest impact with improving students' reading comprehension?*

The READ 180 program had multiple teaching strategies that improved students' reading comprehension. Based on students' involvement and productivity, whole and small group instruction created organization skills and improved reading habits due to the effectiveness of the READ 180 teacher and her ability to meet individual student needs. In addition, the program's structured routine of scaffolding concepts and vocabulary words improved the participants' ability to apply multi-layered reading strategies to a variety of textual material.

3. *How, if at all, were students' attitudes toward reading affected by READ 180?*

READ 180 appeared to have a minimal effect on the reading attitudes of its

participants as most students maintained a sense of negativity when reading independently. However, the READ 180 teacher used her vast professional experience to modify instruction based on individual needs and interests which improved the students' engagement. This was accomplished through high interest reading material outside the READ 180 program, specialized assignments, and guided instruction.

4. *How, if at all, did READ 180 improve the comprehensive reading skills (comprehension, vocabulary, application of reading strategies) of at-risk high school freshmen?*

The comprehensive reading skills of READ 180 participants improved students' aptitude with the reading process as they understood and regularly implemented a before, during, and after reading model. As the semester progressed, students also understood reading goals and monitored their progress with focused reading concepts although it was with READ 180's below grade level text that limited their ability to be successful with grade level reading and writing. As a result, students maintained low grades in regular grade level English courses.

### **Summary of Findings**

As a whole, READ 180's research found the program to be successful on multiple literacy levels with below level readers from grades four through 12 and that it was also uniquely designed to meet the needs of struggling readers while accelerating the reading skills of any participants (Scholastic, 2011). More specifically, Scholastic stated that READ 180 would improve reading test scores regardless of gender, ethnicity, or language background and that student achievement was a byproduct of the program. Furthermore,

Scholastic maintained that their curriculum and materials were high interest which sustained student engagement and motivation. However, the findings for this study indicated that READ 180 was a beneficial intervention in limited areas for many at-risk high school students, but it did not meet the myriad of affective and cognitive needs required for grade level literacy development. Instead, READ 180 best served secondary level students when it was modified based on individual student needs and interests. The similarities and differences between READ 180's studies and this study are addressed in the following paragraphs.

Small group instruction and the value of a dedicated, knowledgeable reading teacher were the two elements that created positive and successful change with the majority of the participants. Students were engaged in the learning process and able to apply multi-layered reading strategies when they worked with Mrs. Blake and her constant guidance in small group instruction. However, READ 180 did not consistently motivate students to read, and the materials were dated and below grade level which created a Catch-22 of attempting to elevate students to ninth grade reading with sixth grade level text. In general, students understood concepts such as how to ascertain the main idea and supporting details from text but not with advanced reading and writing skills that translated to their English classes or other content area classes. The collective GPA of the 21 students for the READ 180 class was 2.52, yet their collective English class GPA was .57. The reading intervention did not equate to success with grade level reading, writing, and critical thinking at the high school level.

The impact of READ 180 on the affective and cognitive reading skills of at-risk secondary level readers was limited. Students had positive comments about Mrs. Blake

and her ability to inspire them and create improved work habits, but their attitudes toward the act of reading were negative or neutral and generally unaffected by READ 180 which demonstrated the importance of READ 180 teachers needing to be exceptional in their ability to motivate, teach, and endure the difficulties associated with teaching reading to at-risk students. The cognitive skills developed by the READ 180 program were also limited. Higher order thinking questions were restricted to below grade level textual material and rarely required an extensive justification for response. In addition, the application of writing skills to demonstrate knowledge of reading was well below the state learning standards required for ninth grade students.

The teaching strategies from the READ 180 program that had the greatest impact with improving students' reading comprehension dealt with the consistent reading routines practiced through process, scaffolding, and vocabulary concepts. Students' participation and output gave evidence that READ 180 teaching strategies used in whole and small group instruction with R books and L books were an effective intervention that produced organization skills and improved reading habits under the direction of the READ 180 teacher. Students' attitudes toward reading were mostly negative with the READ 180 library but were positively affected when Mrs. Blake went beyond the scope of protocol for the independent reading rotation of READ 180 and suggested books of high interest such as *The Hunger Games* with specialized follow-up assessments. Furthermore, Mrs. Blake read to students and played an audio version of *Tears of a Tiger*, a non-READ 180 book, which also regularly engaged students. As a result, students responded to the concept of independent reading but needed an environment that had guided practice and high interest material not found with READ 180.

The comprehensive skills READ 180 aimed to improve, which encompassed reading comprehension, vocabulary attainment, and application of reading strategies, did appear to help many students become more adept at the reading process. Students understood reading goals and monitored their progress with larger concepts such as summarizing and sequencing albeit with text that was three grade levels below ninth. Teacher fidelity with implementing READ 180 was also pivotal to the success of the program to which Mrs. Blake performed adeptly. There were multiple tools with the program that met many of the needs of below grade level readers, but teachers should be regularly trained and given continuous support.

The findings for this qualitative study indicated that READ 180 was successful with improving the reading strategies that students could employ with daily reading yet, READ 180 did not appear to create students who would become avid readers. As a whole, READ 180 best served at-risk secondary level students when it was modified based on individual needs in a setting that empowered the teacher to adjust to individual student needs. In turn, the READ 180 program was only as effective as the instructor who implemented the program. In this study, the instructor was exemplary on numerous levels and modified the program to best fit the needs of her students. As a result, the students' affective and cognitive success was centered primarily on interactions with the READ 180 teacher and her aptitude with meeting their individual needs.

### **Discussion with Implications**

The purpose of this case study was to determine the impact of the READ 180 reading intervention program on the affective and cognitive reading skills of at-risk high school students. READ 180 was used nationwide by thousands of public schools to help

their lowest performing readers accelerate their literacy skills, and it can be a critical factor to the success of struggling students. It was established that students with severe reading issues could achieve when given the proper intensive reading interventions (Denton, Fletcher, Anthony, & Francis, 2006). However, READ 180 was prescriptive which limited the individualized instruction high school students often require, and it also required fidelity with implementation in order to achieve the results the program claimed it can deliver. To understand READ 180's effect, this case study evaluated all aspects of the program through the theoretical lens of Bloom's cognitive development taxonomy, Vygotsky's zone of proximal development, and Badura's social learning theory.

Bloom's (1956) taxonomy encompassed knowledge of facts, recognition of relationships, application of information, analysis of information, creation of new knowledge, and evaluation one's new information. Many public schools, including Pacific High School, used Bloom's progression of critical thought to determine the levels of cognition taking place within a classroom. For secondary level students, READ 180 was faulty in its cognitive structure. The text was written at a sixth grade level, the levels of questions were nearly void of higher order thinking as noted in table 4.2, and the depth of questioning and written response were not aligned with ninth grade learning standards. These students needed to be challenged. Students with learning disabilities have often become higher achieving readers when challenged with higher order comprehension questions (Anderson, 2009).

Cognitive development did occur with READ 180, but it occurred mostly through the direct instruction of the teacher. As students become older their inferring skills, comprehension monitoring, and attention to story structure are the three strongest



indicators of strong cognition skills, and in this regard the majority of students needed constant assistance from the READ 180 instructor (Johnston, Barnes, & Desrochers, 2008). Higher order thinking skills also need additional working memory which READ 180 students may not have possessed because of the unique needs they had with being a high school student in need of a reading intervention. Therefore, growth in reading scores for intervention participants should be based on their measured cognitive ability because they will not have the same growth rate as other students (Shippen, et al., 2006).

The curriculum design and structure of reading programs such as READ 180 should be individualized for any high school student taking a reading intervention course so the cognitive skills are maximized. It was inefficient and a disservice to instruct a class of struggling readers the same material with the same methods in an effort to accelerate their already deficient literacy skills. A common assertion was that students may have grade level fluency and decoding skills but lack deeper connections to the text that required critical thinking skills such as inferring and analysis (Chard, et al., 2008). Instead, cognitive skills should be developed through in-depth class discussions and writing about high interest text that incorporates higher level questioning (Bitter, O'Day, Gubbins, and Socias, 2009). This point was reiterated by Bost and Riccomini (2006) who found at-risk students could not reach the higher levels of learning without being engaged behaviorally, academically, psychologically, and cognitively, and this was accomplished through appropriate individualized teaching.

Building comprehension with any reader requires cognitive skills that were activated through teaching and learning, meaning that the teacher was explicitly focusing on inferring or other advanced reading skills and scaffolding of text through multiple

readings (Liang, 2011). As a result, an intervention's curriculum and teaching should adapt to student needs in a manner that engages them in creating new knowledge (Parsons, Williams, Burrowbridge, & Mauk, 2011). READ 180 was adept at improving student knowledge and rereading of material with a different focus with each reading. It was structurally well designed. However, to improve the program at the secondary level teachers need flexibility in adapting to the needs of their students. For example, in this study Mrs. Blake had two extreme cases in one class. One ELL male student was frustrated with the learning and unmotivated while another male student worked hard and was consistently engaged. Yet, he was unchallenged by all aspects of READ 180 but still in need of reading support. A prescriptive reading program like READ 180 should be used for a portion of the week so that adjustments can be made for students needs whether they be affective, cognitive, or both.

The teacher's fidelity with the program was exemplary and her pedagogical awareness benefitted all her students to some degree. It could be argued that a student committed to learning in Mrs. Blake's READ 180 class would improve as much as possible with a one year high school intervention, but based on research the majority of struggling high school readers were deficient in four main areas of reading assessment: fluency, comprehension, vocabulary, and word decoding (Hock, et al., 2009). It can be a daunting task to address multiple areas of deficiency with a wide range of at-risk students, yet READ 180 was systematic in its approach to helping students with these four skills provided there was fidelity with the program's implementation. Consequently, the commitment of the READ 180 instructor to the program was pivotal to strengthening the participants' success even with below grade level text. The difference with READ

180 versus other potential intervention programs was that students could follow a reading process that perhaps was not previously taught to them.

Corcoran and Mamalakis (2009) found that the intervention teacher was the most critical factor in the progress of at-risk students. Therefore, READ 180 teachers had to meet a myriad of qualifications in order to be successful with the unique needs of struggling high school readers because they typically require a multitude of needs. Based on experience and observations, the skills required include: a commitment to student achievement, maintenance of high expectations, a positive attitude for all students regardless of their behavior, implementation with fidelity of the READ 180 instructional model, flexibility in meeting the individual needs of students, modeling of positive reading behaviors and strategies, strong classroom management skills, an ability to teach to multiple learning groups that occur simultaneously in the classroom, competence with computer instruction, an aptitude to analyze data and set goals for reluctant learners, and an aspiration to continue professional development with reading and writing instruction. Clearly, high school reading interventions programs have been designed for teachers who were agreeable to challenges.

The primary issue with READ 180's use at the high school level was its lack of adherence to state learning standards, instead it taught with text that was substantially below grade level. Many resource teachers tended to contribute the majority of their ideas during critical class discussions because they believed their students lacked the knowledge to powerfully contribute or think. READ 180's prescriptive format embraced this ideology which stifled thinking. For example, it was important to teach students to elaborate their reading comprehension skills through written language responses (Mohr &

Mohr, 2007). The four modes of discourse outlined in California's state learning standards for ninth grade require extensive essay based writing in relation to text that was narrative, expository, argumentative, and description based. In addition, independent active readers needed comprehension strategies that were entwined with standards-based curriculum (Bitter, O'Day, Gubbins, and Socias, 2009).

Technology was one aspect of cognitive based learning that has come to the forefront of education within the last decade. READ 180 recognized this advent and became a leader with the incorporation of technology into their everyday curriculum as technology was an important tool to enhance the literacy skills of struggling readers (Sternberg, Kaplan, & Borck, 2007). It was also acknowledged that the utilization of technology that aligned with an intervention program's core components could have a positive effect on student achievement (Martin, et al., 2010). READ 180 adhered to this precept although students could become frustrated or lazy without consistent monitoring of their progress with each software segment they completed. However, one study argued that the use of technology promoted student engagement because of its student centered approach with the stipulation that it supported content teaching and did not replace it (Wright & Wilson, 2009). Regardless, the onus has been on the teacher to keep students informed and progressing through each aspect of their computer work. In turn, students reading below far below grade level could benefit from learning reading strategies through computer assisted instruction, and READ 180 was adept in this regard (Kim, Vaughn, Klingner, & Woodruff, 2006).

This study also assessed the value of READ 180 in the context of Vygotsky's (1978) zone of proximal development theory which described the work students could

complete independently and what they could complete with assistance. When a student worked outside their zone of development the result was frustration on the low end and boredom on the upper end. When curriculum and accompanying strategies were used accurately within the ZPD then students cognitive skills progressed with proper support. READ 180 was designed to work within a student's ZPD as assessment, scaffolding, modeling, demonstration of knowledge, and independent practice were foundational elements of the program.

Even though READ 180 followed the principles of ZPD, observations and analysis of student data indicated three of 21 students were out of their ZPD (table 4.5). The three students classified as frustrated were unmotivated to read because the struggle to stay on task with reading material was too difficult to learn (Burns & Helman, 2009). In addition, the rate students were engaged directly with academic activities corresponded to their productivity and academic success, and these three students failed both READ 180 and their English classes (Gettinger, 1995). Secondary level students with low reading skills have had a multitude of issues that must be addressed but they must work within their ZPD. The goal for this unique group of students was to create a set of skills and strategies that were similar to that of high achieving readers which included speed, fluency, monitoring for understanding through questioning, summarizing, predicting, activating prior knowledge, and inferring (Edmonds, et al., 2009). This is why a reading intervention teacher that has used a program such as READ 180 must be a special educator on numerous fronts.

Student achievement within READ 180, or any intervention class, was predicated on routine assessment of student progress (Kennedy & Shiel, 2010). This became

problematic with high school students with poor reading skills because their teacher have had to deal with a multitude of literacy needs that have been compounded through the years (Wanzek, Wexler, Vaughn, & Ciullo, 2010). READ 180's assessment tools and teaching strategies built into the program were designed to keep students within their ZPD. For example, one core strategy included previewing new reading material that was aligned with students reading levels which increased on-task behavior and academic success (Beck, Burns, & Lau, 2009). In this regard, READ 180 was well-designed for any secondary level student in need of an intervention.

Reading interventions require time variances with their implementation based on student needs. Some students may need an RTI stage one intervention, 15 minutes a day for up to eight weeks, while others have required a more in-depth stage two approach with smaller class sizes, trained professionals, and durations of 12 to 16 weeks before reassessment. Severe reading interventions move to RTI stage three with intense 60 minute durations that focus on individual needs for six months to a year or more. READ 180 was a blend of stages two and three, yet effective reading interventions have also focused on instruction that utilized suitable grouping that provided constant systematic and corrective feedback followed by extended practice on the targeted individual needs of students (Vaughn & Roberts, 2007). READ 180 used a variety of strategies in this regard; however, its strongest method involved small grouping which at times focused on individual needs with the caveat that students use the same textual material. This may be problematic for the range of learners in a high school classroom with a myriad of needs.

Other strategies employed to ensure student success while working in their ZPD were a blend of READ 180 and the instructor being adept with understanding her

students' needs. For instance, daily read-aloud segments in the classroom supported the literacy development of struggling readers (Zucker, Ward, & Justice, 2009). In addition, students were taught specific paraphrasing and decoding strategies which may have produced significantly higher standardized test scores, a factor that often drives instruction in the state of California (Schumaker, et al., 2006). While effective reading teachers guided student to higher comprehension through layered questioning, READ 180 was not designed for extensive higher level comprehension that equates to ninth grade standards (Mohr & Mohr, 2007).

At the high school level most reading instruction is focused on comprehension and vocabulary skills for students reading at grade level. Students in need of interventions benefit from strategies that focused on previewing skills and small group settings that centered on comprehension, and READ 180 was skillful in this aspect (Burns, Hodgson, Parker, & Fremont, 2011). One issue was the methods used to teach ELLs because of the struggle for them to learn such skills at a rate congruent with native speaking students. However, Teale (2009) found this disparity could be lessened with strategies that extended learning concepts, multi-layered vocabulary instruction that clarified complicated words, implementation of summarizing skills with a variety of texts, extended learning time, and peer collaboration. READ 180 followed these precepts which made their intervention ideal for most ELLs.

ELL students may have had ongoing new language acquisition problems with any combination of issues that included inattention to learning, oral language deficiency, and a lack of opportunities to acquire language through reading. As a result, teachers needed on-going professional development that helped them evaluate their ELLs so they could

monitor and address their individual needs (O'Day, 2009). READ 180 offered support as needed but as the instructor in this study noted, much of her training was self directed. Past studies have shown administrative support at both the site and district level was necessary for EL students to be successful (O'Day, 2009). READ 180 may not have improved consistent critical thinking skills, but ELLs comprehension scores decreased in each tier or higher level questioning anyway. READ 180 was successful with ELLs because reading comprehension scores improved when there was a focus on meaning, specific literacy based learning strategies, differentiated instruction, and oral language development (O'Day, 2009).

The teaching strategies needed for a reading intervention class for at-risk high school students were immense because the affective and cognitive domains have had to be simultaneously taught to reluctant readers. One study noted that the needs of struggling high school readers change over time, but strategies that focused on building prior knowledge was essential to building decoding, vocabulary, and comprehension skills (Hock, et al., 2009). READ 180 was structured accordingly with its strategies which gave the students skills focused on the process of reading in before, during and after segments the benefit of which were best measured in other classes to determine what strategies students actually implemented with their daily reading.

READ 180 did not address the role of gender, but one study found student comprehension was higher when there was less reading material and there were more females than males in a small group setting (Burns, Hodgson, Parker, & Fremont, 2011). In addition, the most highly motivated readers were young females whereas older males struggled the most with their motivation to read (Pecjak & Kosir, 2008). This study had a



ratio of two males to every one female which may have hindered student development and made it more difficult for instruction, but the three highest grades in READ 180 belonged to males which demonstrated the efficacy of the program as being gender neutral.

The third theoretical guide for this study was based on Bandura's (1989) social learning theory which held that students acquire knowledge on the basis that they were motivated to do so. In turn, a student's self-efficacy and outcome expectancies, which may be influenced by internal or external motivators, either improved or weakened as they encountered new material. READ 180 was reliant on motivating students through their program's design and structure. Nilsen (2009) noted that student success was predicated on motivation and self-efficacy which were attained through the teacher's attitude and ability to construct a curriculum that was beneficial for each student. In contrast, low motivated readers failed to regularly read and apply strategies that strengthened their understanding of material which perpetuated poor comprehension skills. Therefore, teachers have had to find techniques that motivated these at-risk readers before they could become proficient in the reading process (Morgan & Fuchs, 2007). The most successful reading teachers implemented multiple best practice strategies while utilizing extrinsic and intrinsic motivation to enhance the students' connections to reading (McKool & Gespass, 2009). As a result, READ 180 was only as effective as the instructor who implemented it, but it can be pivotal to the literacy development of any student in need of an intervention.

High school students in READ 180 were unique because they had continuously failed to maintain basic grade level reading standards. As a result, their motivation to

read was often low but intangible rewards and acknowledgement of their efforts could create or maintain an intrinsic motivation to read (Chen & Wu, 2010). READ 180 also followed the principle that students were motivated to read when given multiple reading opportunities and were taught strategies for every day reading (Pecjak & Kosir, 2008). The motivational needs of at-risk high school students in an intervention class could compound the ability to teach them at a high level. The READ 180 teacher in this study noted the high rate of stress and exhaustion for instructors based on these circumstances. However, teachers were most successful with at-risk students when they maintained a positive and cooperative relationship while teaching to their specific needs (Giangreco, et al., 1993). This is obvious, but there have been teachers who have taught punitively with struggling students forgetting that students' ethnicity, gender, ELL status, and socio-economic standing all factored into their academic achievements (Stein, et al., 2008). Ultimately, reading self-esteem and motivation to read is improved when at-risk students participate in reading intervention programs (Kaniuka, 2010).

At-risk high school students have been defined through their grade point averages, dropout rates, test scores, ethnicity, demographics, language status, and gender, and the challenges in reaching them have been compounded with each passing year of high school. Johnston, Barnes, and Desrochers (2008) noted that reading interventions had the greatest effect when students received explicit instruction in their areas of greatest need. However, the teaching strategies employed with READ 180, which were designed to raise reading achievement skills as evidenced through test scores, may not be enough to reach at-risk secondary level students. Muyskens, Marston, and Reschly (2007) found a significant correlation between student attendance and student achievement, and potential

problems with attendance could be rectified with behavioral modifications and proper academic interventions. The issue with older students was more than attendance; it has been about empowerment with their educations (Cummins, 2001).

The social dynamics that engaged students within a classroom, which may lead to empowerment, are dependent on many factors, and they become more complex with at-risk students in a high school literacy intervention course. To rectify this issue, research has demonstrated that teachers can connect with minority students and guide the curriculum through their cultural, academic, and linguistic backgrounds (Cummins, 2001). Yet one steadfast dynamic that ensured academic success was a learning environment centered on positive social interdependence amongst students that facilitates learning, engagement, and achievement whereas independent or negative social interdependence undermines the ability for students to succeed academically (Roseth, Johnson, & Johnson, 2008). As a result, a READ 180 classroom was only as effective as the teacher directed it to be albeit with limitations in the design of the program.

The first step with secondary level students was literacy engagement because there was a strong correlation between motivation and reading success (Guthrie, et al., 2009). Motivating students to read was accomplished through relevant texts, student choice, building prior knowledge, class discussions, and the teacher reading aloud to the class for modeling and connection purposes (Wilson & Kelley, 2010). In addition, a sustained silent reading program was more effective in motivating readers (Siah & Kwok, 2010). All of these elements were built into the READ 180 program, yet motivation was still an issue for the majority of the students. Nelson, Lane, Benner, & Kim (2011) argued that effective reading programs did not have an effect on the behaviors of at-risk

students. The affective connections students had with READ 180 were strongest when they worked in small group; they worked hard and were motivated to learn. In contrast, low-level readers struggled with reading independently and these students have often had their negative feelings toward literacy increased by separation from their peers during tutoring and intervention sessions (Morgan, Fuchs, Compton, Cordray, & Fuchs, 2008).

Reading ability was the primary determinant of academic success (Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010). In addition, motivated readers were superior thinkers and students, therefore it is vital to the success of struggling readers that they be given numerous strategies and opportunities for success so their motivation to read is elevated (Brozo & Flynt, 2008). The question has been how to motivate participants beyond READ 180's small group instruction. READ 180 relied on a software component for one third of its instruction, but reading programs that had technology and alternative curriculum were not as effective at helping struggling readers as reading programs centered on best teaching practices learned through professional development (Slavin, Lake, Davis, & Madden, 2010). Bandura (1995) noted that instruction was most effective when students had an inspiring environment that reinforced their self-efficacy while offering mastery learning experiences.

### **Limitations**

The first limitation was students may not have received the consistent treatments of READ 180 program because of tardiness, absences, suspensions, or participation. A second limitation involved the school site where the research was conducted. There were approximately 70 students in READ 180, yet other eligible students received no literacy intervention at the tenth through twelfth grade levels. In turn, the selection of students

for the study may not have been a true representation of the student population. A third limitation existed because of the variety of learning styles, abilities, and reading levels amongst students in READ 180 which included special education students (SE), and English language learners (ELLs), and misplaced students.

A fourth limitation was the READ 180 program's emphasis on couches and a quiet area designated for sustained silent reading portion of the program. This aspect of the program was logistically impossible for the classroom being used for this study. The effects of students reading quietly at their desks amongst other students may have affected their level of reading comfort and reading comprehension, two things assessed in the study. Fifth, teacher fidelity with the READ 180 program was limited to the time observing students. A final limitation was the study was conducted at one school site with one teacher implementing READ 180. On a local scale, this study provided a small representation of the many students who participated in READ 180 throughout the school district where the study took place. On a national scale, the study was not a true representation of the variety of students who are in the READ 180 program.

### **Recommendations**

There are four recommendations for strengthening READ 180 and reading interventions for at-risk high school students. First, a READ 180 instructor should have support from an assistant to maximize instruction with student's individual needs. Research has found that consistent one-to-one tutoring is most effective with improving the comprehensive reading skills of struggling readers, however regular small group instruction can be nearly as effective (Slavin, Lake, Davis, & Madden, 2010). All 21 students in this study learned most from small group instruction but they only received

such teaching for one third of their class time. A teaching assistant, perhaps one recruited from any local college teaching program, would be able to conduct small group instruction with the other two rotations of independent reading and software programs which would further increase student support with specific reading skills. The assistant could also work with students individually to create specific reading goals ascertained from various assessments that may or may not be derived from READ 180. The assistant would also be able to lessen some of the teaching burden that secondary level READ 180 teachers feel with implementing an intricate program with largely unmotivated students.

A second recommendation is to have teachers receive regular READ 180 professional development training in conjunction with a best reading practices seminar for secondary level students. Mrs. Blake taught herself much of the READ 180 program and how it functioned because she was dedicated to her students. However, there is not a designated READ 180 cohort of teachers that met to exchange information which would simplify the teaching process and strengthen pedagogical practices for at-risk students with needs beyond what READ 180 could provide. In addition, regular meetings with fellow READ 180 high school teachers might alleviate some of the exhaustion that they experience with the program.

Third, reading interventions at the high school level should be based on a long term plan rather than a short term fix because students who struggle to reach grade level reading are prone to revert back to poor reading habits without proper ongoing support. Pacific High School offered READ 180 for students first year of high school but offered no further reading interventions despite most students, according to numerous assessments, not being able to read at grade level after completing the program. Ms.

Avalos, the district administrator in charge of READ 180, said that the program should work in a maximum of two years otherwise those students would need alternative support. I suggest that rather than being reactive, secondary level schools should be proactive and create individualized reading assessments and plans with ongoing support to motivate and improve at-risk students' success throughout their high school educations. A four year plan with a balance of individualized interventions would be more effective as opposed to one year one-size fits all intervention.

A fourth recommendation is for school sites to ensure that students are accurately placed into READ 180 and offered an adapted curriculum if necessary to assure their success with reading. An examination of data indicated that nine of 21 students were either frustrated or unchallenged with READ 180 as evidenced by the range of SRI test scores, observations, and assessments. These students would benefit from an adapted curriculum that incorporates READ 180 in combination with more individualized instruction. The independent readers would work with ninth grade level text while receiving the same READ 180 strategies and frustrated readers would learn at slower pace with high interest but lower-level materials. In conjunction with this adjusted curriculum, schools should incorporate reading across the curriculum to strengthen specific reading concepts. For example, history and science teachers could teach students main idea and sequencing concepts that follow the same process that READ 180 teaches but with relevant grade level materials. At-risk students would then be able to see the application of strategies with a variety of text. This could be implemented through a district wide training on teaching reading strategies across the curriculum as reading is a core learning skill necessary for success in any subject area with a goal of effective

literacy teaching for all levels and types of learners.

### **Future Research**

There are a multitude of needs with future research in regard to secondary level reading interventions for at-risk students. There is currently limited research that explores this topic and more specifically the dynamics of critical thinking and effective teaching strategies in regard to reading for high school students. The high dropout rate in urban areas of the United States is indicative of the need for this research. In addition, there should be more independent studies of the READ 180 program's use in secondary level education in relation to the modification of its curriculum, its prolonged use, and teacher fidelity with its implementation. Also, the nature of reading interventions for secondary level students may be best served through a longitudinal study that addresses the multitude of issues that have developed with these students. A longitudinal study may help answer the long term effects of reading interventions as well as the academic and social implications of students reading issues over multiple years of high school. Finally, there is a need for research on the effective methods that improve the motivation for high school students who remain unmotivated to read despite multiple interventions. A focus on the advent of technology and its role in motivating reluctant secondary level readers would be particularly beneficial to the field of education.

### **Summary of the Study**

This study was designed to explore the changes in the reading attitudes (affective skills) and comprehension levels (cognitive skills) of participants in the READ 180 program. The findings for this study indicated that READ 180 was a beneficial intervention in limited areas for many at-risk high school students, but it did not meet the



myriad of affective and cognitive needs required for grade level literacy development.

Instead, READ 180 best served secondary level students when it was modified based on individual student needs and interests.

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APPENDIX A  
INSTITUTIONAL REVIEW BOARD APPROVAL

**LIBERTY**  
UNIVERSITY

The Graduate School at Liberty University

June 6, 2012

Jeffrey Vogel  
IRB Approval 1346.060612: A Case Study on the Efficacy of the READ 180 Reading  
Intervention Program on Affective and Cognitive Learning for At-Risk Secondary  
Level Students

Dear Jeffrey,

We are pleased to inform you that your above study has been approved by the  
Liberty IRB. This approval is extended to you for one year. If data collection  
proceeds past one year, or if you make changes in the methodology as it pertains to  
human subjects, you must submit an appropriate update form to the IRB. The forms  
for these cases were attached to your approval email.

Thank you for your cooperation with the IRB and we wish you well with your  
research project.

Sincerely,



**Fernando Garzon, Psy.D.**  
*Professor, IRB Chair*  
Counseling

(434) 592-4054

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**APPENDIX B  
SITE ADMINISTRATOR CONSENT FORM**

**Research Background (to be completed by the researcher)**

**Title of Study:** A Case Study of the Efficacy of READ 180 on Affective and Cognitive Reading Skills for At-risk Ninth Graders

**Name of Researcher:** Jeff Vogel

**Phone:** 760-221-3875

**Address:** 998 Turnstone Road

**City:** Carlsbad

**State:** CA

**Zip:** 92011

**Email:** jandrvoegel@cox.net

**Description of Research Proposal**

Refer to the Research Information Statement for detailed description of research study.

**Agreement (to be completed by the administrator)**

I, \_\_\_\_\_, of \_\_\_\_\_ school, understand

- The study and what it requires of the staff, students, and/or parents of my school
- The privacy and confidentiality of any staff or student will be protected
- I have the right to allow or reject this research study to take place at my school
- I have the right to terminate this research study at any time
- I have the right to review all consent forms and research documents at any time up to three years after completion of the study.

I grant permission to the researcher to conduct the above named research in my school as described in the proposal.

I DO NOT grant permission to the researcher to conduct the above named research in my school as described in the proposal.

\_\_\_\_\_  
Signature of Administrator

\_\_\_\_\_  
Date

## **APPENDIX C STUDENT CONSENT FORM**

A Case Study on the Efficacy of the READ 180 Reading Intervention Program on  
Affective and Cognitive Learning for At-Risk Secondary Level Students

Jeff Vogel

Liberty University School of Education

Your child is invited to be in a research study of the READ 180 program. He/she was selected as a possible participant because they are a student in the class here at Oceanside High School. I ask that you read this form and ask any questions you may have before agreeing to have your child in the study.

This study is being conducted by Jeff Vogel, Education Department - Liberty University

The purpose of this study is to discover the effectiveness of the READ 180 program with reading behaviors and reading comprehension. All three elements of READ 180 (computer program, small group instruction, independent reading) will be evaluated to determine what is being learned by students.

### Procedures:

If you agree to allow your child in this study, I would ask your child to do the following things: 1) Participate regularly in READ 180. 2) Understand that they will be observed, interviewed, and student work with the READ 180 materials will be reviewed. The research will not impact regular classroom instruction time. Observations will occur for an hour once a week for 16 weeks from August through November. Interviews will occur one time in October for five minutes at the end of class. A review of student work will occur after observations each week but not until the class has concluded for the day. Students will not be assigned to special groups based on this study.

### Risks and Benefits of being in the Study:

There is minimal risk with this research. Participants will be observed, interviewed, and their work from the READ 180 program will be analyzed. The observations and data collection will not infringe on the students as it is primarily observations of their everyday classroom activities. Student interviews will be conducted one-on-one and recorded via shorthand in an empty room to minimize risk. Analysis of student materials will be conducted with no participants or school personnel present. There are no direct benefits or compensation for your participation in this study. However, this study may be beneficial in helping high schools determine the effectiveness of the READ 180 program with struggling readers at the secondary level. It may also help determine if all struggling readers belong in READ 180 or if there are specific types of learners who might benefit from a different reading support program. On a larger scale, this study is necessary due to the No Child Left Behind law requiring every student to be reading proficiently by 2014.

**Confidentiality:**

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be securely stored and only the researcher will have access to the records. Pseudonyms will be utilized in reference to all findings requiring specific student documentation. Any published items with student names will be blacked out. Student data will be collected and organized into alphabetically based files that contain interview notes, document analyses, individual observations, and student work (journals, reading logs, and READ 180 workbooks). No participants will be recorded. All materials will be locked in a file cabinet and stored on a personal laptop computer that is password protected. Data will be shredded or deleted once the three year time period is up.

**Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether or not to have your child participate will not affect his/her or your current or future relations with Oceanside High School or Liberty University. If you decide to have your child participate, he/she is free to not answer questions and can withdraw at any time without affecting those relations.

**Contacts and Questions:**

The researcher conducting this study is Jeff Vogel. You may ask me questions at any time at 760-221-3875 or jeff.vogel@oside.us. My advisor is Kathie Morgan, 434-582-2469, kcjohnso@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the Institutional Review Board, Dr. Fernando Garzon, Chair, 1971 University Blvd, Suite 1582, Lynchburg, VA 24502 or email at fgarzon@liberty.edu. You will be given a copy of this information to keep for your records.

**Statement of Consent:**

I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child to participate in the study.

Signature of Parent: \_\_\_\_\_ Date: \_\_\_\_\_

I have read and understood the above information. I have asked questions and received answers. I consent to participate in this study.

Signature of Minor: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX D**  
**TEACHER/ADMINISTRATOR CONSENT FORM**

A Case Study on the Efficacy of the READ 180 Reading Intervention Program on  
Affective and Cognitive Learning for At-Risk Secondary Level Students

Jeff Vogel

Liberty University School of Education

You are invited to be in a research study of the READ 180 program. You were selected as a possible participant because you are a teacher or administrator in charge of the READ 180 program here at Oceanside High School. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Jeff Vogel, Education Department - Liberty University

The purpose of this study is to discover the effectiveness of the READ 180 program with reading behaviors and reading comprehension. All three elements of READ 180 (computer program, small group instruction, independent reading) will be evaluated to determine what is being learned by students.

**Procedures:**

If you agree to participate in this study, I would ask you to understand that you will be interviewed for your knowledge of READ 180. Questions will be general and specific and will take approximately 15 minutes. The research will not impact regular classroom instruction time. Observations will occur for an hour once a week for 16 weeks from August through November. Interviews will occur one time in October for approximately 15 minutes at your convenience after school.

**Risks and Benefits of being in the Study:**

There is minimal risk with this research. Participants will be observed, interviewed, and their work from the READ 180 program will be analyzed. The observations and data collection will not infringe on the students as it is primarily observations of their everyday classroom activities. Student interviews will be conducted one-on-one and recorded via shorthand in an empty room to minimize risk. Analysis of students' materials will be conducted with no participants or school personnel present.

There are no direct benefits or compensation for your participation in this study. However, this study may be beneficial in helping high schools determine the effectiveness of the READ 180 program with struggling readers at the secondary level. It may also help determine if all struggling readers belong in READ 180 or if there are specific types of learners who might benefit from a different reading support program. On a larger scale, this study is necessary due to the No Child Left Behind law requiring every United States student to be reading proficiently by 2014.



### Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

Pseudonyms or professional titles will be utilized in reference to all findings requiring specific teacher or administrator documentation. All data will be collected and organized into alphabetically based files that contain interview notes, document analyses, individual observations, and student work (journals, reading logs, and READ 180 workbooks). No participants will be recorded. All materials will be locked in a file cabinet and stored on a personal laptop computer that is password protected. Data will be shredded or deleted once the three year time period is up.

### Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Oceanside High School or Liberty University. If you decide to participate, you can choose not to answer any or all questions and can withdraw at any time without affecting those relationships.

### Contacts and Questions:

The researcher conducting this study is Jeff Vogel. You may ask me questions at any time and can reach me at 760-221-3875 or jeff.vogel@oside.us. My advisor is Kathie Morgan, 434-582-2469, kcjohnso@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the Institutional Review Board, Dr. Fernando Garzon, Chair, 1971 University Blvd, Suite 1582, Lynchburg, VA 24502 or email at fgarzon@liberty.edu. You will be given a copy of this information to keep for your records.

### Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child to participate in the study.

Signature of Teacher/Administrator: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX E**  
**READING HABITS OBSERVATION CHECKLIST**

<b>Reading behavior</b>	<b>Student</b>			
<b>1. General Comprehension</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1. Follows the central message				
2. Evaluates the relevancy of facts				
3. Questions the accuracy of statements				
4. Comprehends what the text means				
5. Follows the text's organization				
6. Can solve problems through reading				
7. Makes predictions and takes risks				
8. Develops purposes for reading				
9. Applies information to come up with new ideas				
<b>2. Vocabulary</b>				
1. Has a grasp of the subject's technical terms				
2. Works out the meaning of a word through context or structural analysis				
3. Uses a dictionary or glossary effectively				
4. Sees relationships among key terms				
5. Is interested in derivation of technical terms				
<b>3. Reading habits</b>				
1. Concentrates while reading				
2. Understands better by reading orally versus silently				
3. Has a well-defined purpose when reading				
4. Knows how to take reading notes				
5. Can organize and summarize reading material				
6. Skims to find answers to a specific question				
7. Reading speed is appropriate				
8. Reads carefully				
9. Makes use of book parts				
10. Understands charts, maps, and tables in the text				

Observation key:

- A = always/excellent
- B = usually/good
- C = sometimes/average
- D = seldom/poor
- F = never/unacceptable

**APPENDIX F**  
**COMPREHENSIVE READING OBSERVATION CHECKLIST**

- I. Word Identification Techniques
- A. Sight word recognition
1. Recognizes most general vocabulary terms by sight \_\_\_\_\_
- B. Phonic analysis
1. Is able to apply phonic analysis to deduce the pronunciation and meaning of vocabulary terms \_\_\_\_\_
- C. Structural Analysis
1. Is able to recognize the base or root word \_\_\_\_\_
2. Uses the prefixes, suffixes, and roots to deduce the pronunciation and meaning of words \_\_\_\_\_
3. Is able to divide polysyllabic vocabulary terms into syllables when necessary to decode terms \_\_\_\_\_
- D. Contextual analysis
1. Uses semantic and syntactic clues to effectively deduce the meaning of unknown words found in various readings \_\_\_\_\_
- E. Dictionary usage
1. Is able to use a dictionary or glossary to locate meaning of unknown words \_\_\_\_\_
2. Uses good judgment about when to use a dictionary \_\_\_\_\_
3. Is able to choose the correct dictionary definition for use in the context of the unknown word \_\_\_\_\_
- II. Word Meaning
1. Uses wide reading to increase vocabulary terms \_\_\_\_\_
2. Uses a thesaurus when appropriate \_\_\_\_\_
3. Has command of vocabulary terms to speak & write in context \_\_\_\_\_
- III. Comprehension Skills
- A. Literal comprehension
1. Is able to locate the main idea in a text or paragraph \_\_\_\_\_
2. Is able to answer literal questions on content at grade level \_\_\_\_\_
3. Is able to locate significant details in a paragraph \_\_\_\_\_
4. Is able to read and carry out fairly complex directions \_\_\_\_\_

- B. Interpretive Comprehension
1. Is able to summarize a paragraph in a concise manner \_\_\_\_\_
  2. Is able to recognize the author's mood \_\_\_\_\_
  3. Understands common literary forms \_\_\_\_\_
- C. Critical Reading
1. Is able to answer critical and evaluative questions \_\_\_\_\_
  2. Can compare material from several sources \_\_\_\_\_
- D. Creative Reading
1. Reads independently for 10 minutes per day \_\_\_\_\_
- IV. Study Skills
1. Is able to use the glossary, index, table of contents, appendix \_\_\_\_\_
  2. Is able to interpret maps, charts, & graphs \_\_\_\_\_
  3. Is able to outline a chapter using headings \_\_\_\_\_
  4. Is able to use take acceptable notes from lecture \_\_\_\_\_
  5. Uses study techniques (KWL, Venn diagrams, etc.) \_\_\_\_\_
  6. Understands patterns such as time/order, cause/effect, and compare/contrast \_\_\_\_\_
  7. Uses technology to supplement learning \_\_\_\_\_
- V. Silent Reading
1. Enjoys reading silently \_\_\_\_\_
  2. Comprehends material read silently \_\_\_\_\_
  3. Self-selects appropriate material for independent reading \_\_\_\_\_
  4. Adjusts reading rate to material such as fiction or content \_\_\_\_\_
  5. Reads independent material at 200-225 words per minute \_\_\_\_\_
- VI. Oral Reading
1. Enjoys oral reading before an audience \_\_\_\_\_
  2. Observes punctuation marks when reading orally \_\_\_\_\_
  3. Reads orally in phrases or groups of words \_\_\_\_\_
  4. Comprehends what has been read orally \_\_\_\_\_

**APPENDIX G**  
**READING LEVEL OBSERVATION RUBRIC**

<b>Independent</b>	<p><u>Behavior</u>: reads easily, comprehends fully, displays confidence, shows high interest</p> <p><u>Word recognition</u>: 99% accuracy, 0-4 errors per 100 words</p> <p><u>Comprehension</u>: 90-100% correct</p>
<b>Instructional</b>	<p><u>Behavior</u>: reads somewhat smoothly though at times word to word, understands but is challenged by the material, may seek help</p> <p><u>Word recognition</u>: 95% accuracy, 5-9 errors per 100 words</p> <p><u>Comprehension</u>: 60-89% correct</p>
<b>Frustration</b>	<p><u>Behavior</u>: may refuse to read, lacks expression during oral reading, may move lips during silent reading, little understanding of material</p> <p><u>Word recognition</u>: 90% accuracy or less, 10+ errors per 100 words</p> <p><u>Comprehension</u>: 60% or less correct</p>

**APPENDIX H  
TEACHER FIDELITY EVALUATION FORM**

<b>Instructional Component</b>	<b>Excellent</b>	<b>Average</b>	<b>Poor</b>	<b>Notes / Effects</b>
Content matches daily program				
Modeling				
Checks for understanding				
Schema				
Metacognition				
Bloom's taxonomy				
Decoding				
Chunking				
Graphic organizers				
Questioning				
Inferring				
Synthesizing				
Vocabulary development				
Reading with purpose				
Speed, fluency, stamina				
Reading time				
Collaboration				
Reading goals				
Annotating				
Summarizing				
Identifying				
Textual support				

<b>Other areas of assessment</b>	<b>Excellent</b>	<b>Average</b>	<b>Poor</b>	<b>Notes / Effects</b>
Adapting to learning styles				
Activities meet range of learning				
Varied interactions with students				
Students input is elicited				
Clear communication				
Assessment facilitates instruction				
Consistent adherence to program				
Students have active participation				
Time & materials well organized				

**APPENDIX I**  
**READING ATTITUDE QUESTIONNAIRE**

1. Do you read many different types of material (books, magazines, etc.)?
2. Do you go to the library, bookstore, or borrow books from friends?
3. Do you read for enjoyment or fun?
4. Do you read every word when reading?
5. Do you stop and think about what you have read?
6. Do you predict what is going to happen when you read?
7. Do you learn new things when you read?
8. Do you use prior knowledge when you read?
9. Do you make mental pictures when you read?
10. Do you shift speeds when you read (sometimes fast, sometimes slow)??
11. Do you think about what you want to learn before or during reading?
12. Do you enjoy listening to someone else read?
13. Do you connect your reading to your everyday life?
14. When something is difficult to read do you reread, read ahead, skip the word or passage, or use something (dictionary) or someone (teacher, friend) else for help?
15. Do you use your own words or ideas to help you understand difficult parts?
16. Do you ask questions as you read?
17. Do you enjoy retelling what you have read through drawing, writing, or discussions?
18. Do you enjoy discussing or sharing what you have read with others?
19. Do you read much outside of school?
20. Do your parents read regularly?
21. Do your siblings or friends read regularly?

Response key: 1 = Always  
2 = Often  
3 = Sometimes  
4 = Rarely  
5 = Never

**APPENDIX J**  
**STUDENT DATA SHEET**

Name \_\_\_\_\_  
Last year's English teacher and English grade \_\_\_\_\_  
Do you have access at home to the internet? \_\_\_\_\_

How many years have you struggled with reading?

How many years have you been in the READ 180 program?

What is easy about reading and what is difficult about reading?

List your favorite books:

What are the last five books you have read?

What types of material do you enjoy reading most?

How much time do you spend reading each day?

What language do you speak other than English?



## APPENDIX K INTERVIEW QUESTIONS

### *Semi-structured Open-Ended Student Interview Questions*

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#### Questions

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1. What do you enjoy about the READ 180 program?
  2. What is difficult about READ 180?
  3. What would you change about the READ 180 computer program?
  4. Of the three parts to the READ 180 class, what helps you the most? Why?
  5. Describe the books you enjoy reading from the READ 180 library?
  6. What other books have you read this year that you have enjoyed?
  7. Describe the parts of the R book that helps you with your reading?
  8. What reading strategies have helped you in the past? Why?
  9. Do you make an effort to improve as a reader?
  10. How helpful are supplemental materials like reading logs, L books, and R books?
  11. What is an ideal reading situation for you at school?
- 

### *Semi-structured Open-Ended READ 180 Teacher Interview Questions*

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#### Questions

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1. How long have you taught the READ 180 program?
  2. What are the specific goals of READ 180 based on each of the three teaching components?
  3. Has the school properly trained its READ 180 teachers and has it properly implemented the READ 180 program?
  4. Describe the benefits of READ 180 for struggling readers.
  5. How effective is READ 180?
  6. Is READ 180 appropriate for secondary level students?
  7. What changes, if any, could improve READ 180?
  8. What site modifications could improve READ 180?
  9. What types of professional development would improve READ 180?
  10. What supplemental materials or teaching strategies would enhance READ 180?
  11. Describe how you would improve READ 180 to meet the different needs of your students?
  12. What advice would you give to new READ 180 teachers?
  13. Other comments or concerns about READ 180 or the school use of READ 180.
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*Semi-structured Open-Ended Administrator Interview Questions*

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**Questions**

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1. How and when did this school site begin using the READ 180 program?
  2. Who decided to use the READ 180 program and why?
  3. Were other reading interventions considered?
  4. What is the goal(s) of the READ 180 program?
  5. Why is READ 180 offered only to ninth and tenth graders?
  6. How effective is READ 180?
  7. What are the qualities you look for in selecting a READ 180 teacher?
  8. What is the biggest success of the READ 180 program?
  9. What problems have you encountered in the READ 180 program?
  10. What is the selection process for students being placed into READ 180?
  11. Do you think that other reading interventions are necessary to supplement the READ 180 program?
  12. What problems have you encountered with READ 180 in regard to students, teachers, school sites, and *Scholastic* (publishers of READ 180)?
  13. What is the cost of READ 180?
-

**APPENDIX L**  
**PARTICIPANT COMPARISON TABLE**

<b>Reading Level</b>	<b>Participant</b>	<b>Reading Comprehension</b>	<b>Reading Fluency</b>	<b>Vocabulary Development</b>
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			