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An Evaluation of a Remedial Reading Program for Middle-Grade Students in a Southeastern State Public School

Susan S. Nichols
Gardner-Webb University

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An Evaluation of a Remedial Reading Program for Middle-Grade Students
in a Southeastern State Public School

By
Susan S. Nichols

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2014

Approval Page

This dissertation was submitted by Susan S. Nichols under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

Steven Bingham, Ed.D.
Committee Chair

Date

Mary Beth Roth, Ed.D.
Committee Member

Date

Jason VanHeukelum, Ed.D.
Committee Member

Date

Jeffrey Rogers, Ph.D.
Dean of the Gayle Bolt Price School
of Graduate Studies

Date

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Abstract

An Evaluation of a Remedial Reading Program for Middle-Grade Students in a Southeastern State Public School. Nichols, Susan S., 2014: Dissertation, Gardner-Webb University, Remedial Reading/Adolescent Literacy/Evaluation Designs/Evaluation Procedures /Middle Schools

The purpose of this study was to evaluate the effects on reading achievement for middle school students after participation in a remedial reading program, Xtreme Reading, at a southeastern state public school. The researcher used Stufflebeam's (2003) context, input, process, and product (CIPP) model to guide the study. A mixed-method research design was used to examine data collected from 80 students in Grades 6 through 8 participating in reading interventions spanning a 1-year period from 2013 through 2014.

There were significant differences in reading achievement scores of students during the 1- year implementation of Xtreme Reading. The findings in this study reveal that an intensive reading intervention, Xtreme Reading, can significantly improve reading achievement for struggling adolescent readers when implemented with fidelity.

Analyses of the data also revealed statistical significance between the effects on student motivation to read during the 1-year implementation of the Xtreme Reading program. The findings in this study will be beneficial to secondary principals who are held accountable for literacy development, implementation, and evaluation as the school instructional leader. The findings in this study will also be beneficial to directors of curriculum and instruction as well as district superintendents in how recommendations are made to school boards for changes in policies of implementation and monitoring of effective reading intervention programs for students at the secondary level.

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Chapter 1: Introduction

Introduction

During the last decade, there has been a nationwide focus on improving reading education. While the press for improving reading education has been prevalent, there continues to be a lack of attention to reading comprehension in the secondary education setting. If the teaching of reading is neglected in middle and secondary grades, many excellent readers at the elementary level will fall behind in later-grade academics (Biancarosa & Snow, 2004). Literacy is defined as “an individual’s ability to use printed information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential” (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993, p. 2). Educators are dealt the task of figuring out how to ensure that every student gets beyond the basic, elementary literacy levels and is able to move to more challenging literacy at the middle and high school levels. This is not an easy task since secondary school literacy skills are more complex, especially in specific subject matter. As text complexity increases, intrinsic motivation of adolescents who are struggling readers begins to decrease without interventions and support. Therefore, it is imperative for middle schools to implement effective, remedial reading programs to assist students in overcoming obstacles in their way of achieving success in literacy.

More than 5 million high school students do not have the proper grade-level literacy skills required to comprehend their textbooks or other written material (Hock & Deshler, 2003). According to data provided by the 2011 National Assessment of Educational Progress (NAEP), 24% of eighth-grade students cannot read at a *basic* level of proficiency. These students are not able to locate information; identify statements of main idea, theme, or author's purpose; or make simple inferences from texts. It is also

difficult for these students to interpret the meaning of a word as it is used in the text.

The Alliance for Excellent Education released a report quantifying the extent of deficiencies in adolescent literacy in the United States (Biancarosa & Snow, 2004). Biancarosa and Snow (2004) reported the following information: (a) more than 8 million students in Grades 4-12 are struggling readers; (b) every school day, more than 3,000 students drop out of high school; (c) only 69% of high school students graduate on time with a regular diploma; and (d) 53% of high school graduates enroll in remedial courses in postsecondary school. This led to an extensive report on effective means of ensuring ongoing literacy development for all students in the middle and high school years in lieu of solely focusing on elementary literacy development and interventions.

Background of the Study

There is an apparent high school dropout epidemic in America. Each year, almost one third of all public high school students and nearly one half of all Black, Hispanic, and Native American students fail to graduate from public high school with their class. Many of these students abandon school with less than 2 years to complete their high school education (Bridgeland, DiIulio, & Morison, 2006). The No Child Left Behind (NCLB) Act of 2001 has raised accountability standards in schools, with the objective of closing achievement gaps and increasing student performance overall (U.S. Department of Education, 2002). NCLB makes federal funding contingent on schools ensuring that at-risk students, those whose performance is significantly below average, are able to succeed academically (U.S. Department of Education, 2004). The National Center for Education Statistics (Grigg, Daane, Jin, & Campbell, 2003) found that the dropout rate of at-risk students is twice as high as their achieving peers, yet at-risk students are not given needed support and are not being selected to receive remedial services (Education Trust,

1999, 2001).

American youth need strong literacy skills to succeed in school and in life. Students who do not acquire these skills find themselves at a serious disadvantage in social settings, as civil participants, and in the working world. Yet approximately 8 million young people between fourth and twelfth grade struggle to read at grade level (Biancarosa & Snow, 2004). Few of these older, struggling readers need help to read the words on a page. The most common problem at an older age is that even though they can recognize words, they are not able to comprehend what they read from the text.

Statement of the Problem

Little research exists that measures the effects of reading interventions at the secondary level (Moje, 2002) even though legislation has mandated that schools and school districts make Annual Measurable Objective (AMO) targets which in the 2011-2012 school year replaced federal mandates of Adequately Yearly Progress (AYP) in reading (North Carolina Department of Public Instruction, 2012). Beyond the mandates, there is a call to ensure that all students' reading deficits are addressed with the appropriate curriculum and/or additional interventions.

Part of the difficulty to meet the needs of struggling readers at the secondary level is that these students experience a wide range of challenging texts that require an equally wide range of reading interventions. Some adolescents still have difficulty simply reading words accurately, but the majority of struggling readers do not comprehend what they read. A predominant reason for this reading deficit is that they do not yet read words with enough fluency to facilitate comprehension and lack the knowledge of reading strategies to reduce this deficit. Another reason is that struggling readers may be familiar with reading strategies, but application is nonexistent due to limitations in

complex text exposure for strategy application. For example, in research conducted as part of the Strategic Literacy Network, Schoenbach, Greenleaf, Cziko, and Hurwitz, (1999) found that teachers who had earlier shelved their course textbooks in hopelessness of their students ever having the ability to read and comprehend them were able to reintroduce the texts once students were taught reading comprehension strategies. In addition to the comprehension strategies taught, the students gained greater confidence in themselves as readers who continued their literacy success with difficult texts. In summary, struggling readers are not able to generalize their reading strategies to subject-specific, content literacy tasks, specifically math, science, or history (Biancarosa & Snow, 2004).

Purpose of the Study

The purpose of this study was to review the implementation and examine the efficacy of a research-based reading remediation program, Xtreme Reading, and its reading and vocabulary strategies as interventions on the reading achievement of students in sixth, seventh, and eighth grades during the 2013-2014 school year. The investigation was a program review of Xtreme Reading and the ability of this program to increase reading comprehension performance in students performing below grade level in reading. This review also investigated Xtreme Reading and sixth- through eighth-grade English/language arts teachers' perceptions of student reading performance and, finally, investigated students' perceptions on their motivation to read while enrolled in the Xtreme Reading class. This study adds to the existing knowledge of effective, remedial reading programs for struggling adolescent readers.

Conceptual Base

The need for effective intervention strategies for adolescents is tremendous

given the fact that almost 40% of high school graduates lack the reading and writing skills that employers value, and nearly 30% of high school graduates who enroll in colleges and universities require remedial reading and/or writing (Deshler & Hock, 2006). A growing number of remedial reading programs for struggling adolescent readers have emerged more and more over the past several years due to an increased focus on addressing their reading deficits.

Since 1978, researchers at the University of Kansas Center for Research on Learning (KU-CRL) have developed a broad array of interventions designed to improve literacy outcomes for struggling adolescent learners. This work has resulted in an intensely researched model for teaching students how to use learning strategies. This long-standing model, the Strategic Instructional Model® (SIM), has merged into the Content Literacy Continuum® (CLC), a five-level continuum that ensures a comprehensive literacy system with coherent, evidence-based teaching and learning at the core (KU-CRL, 2009b).

The CLC, shown in Figure 1, is a comprehensive approach to school-wide adolescent literacy services through five levels of instruction: (a) Enhanced Content Instruction—use of Content Enhancement Routines (CER) to deliver critical chunks of content across all core (English/language arts, math science, and social studies) classes; (b) Embedded Strategy Instruction—students learn and apply 1-2 learning strategies to improve literacy across core curriculum classes; (c) Intensive Strategy Instruction—students receive more intensive strategy instruction outside of the core curriculum class; (d) Intensive Basic Skill Instruction—students receive foundational literacy skills associated with kindergarten through third grade due to their severe literacy deficits; and

(e) Therapeutic Intervention—students with underlying language disorders (identified language impaired) receive intensive, curriculum-relevant approaches with a speech-language pathologist and/or special education teacher (KU-CRL, 2009a).

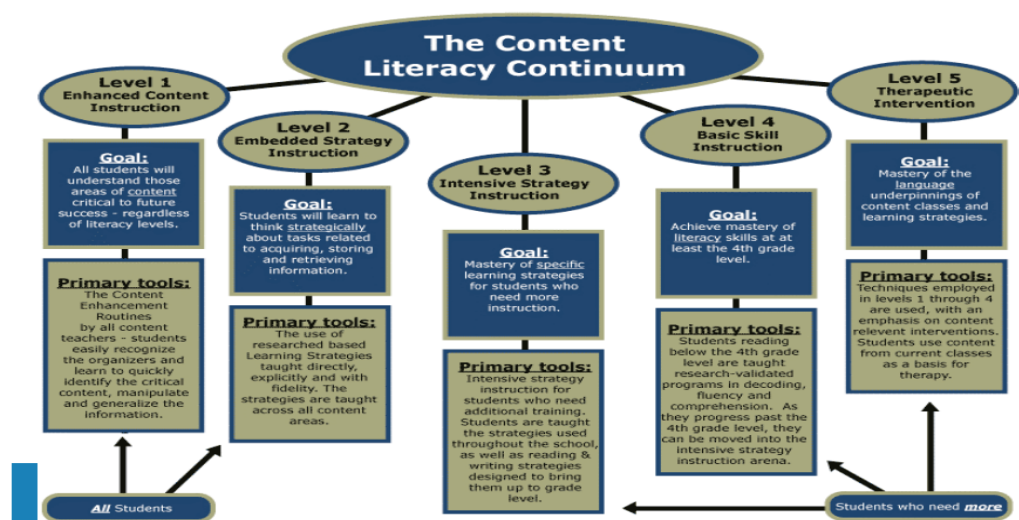


Figure 1. CLC Model.

The strategies utilized in the Xtreme Reading program are a comprehensive approach to adolescent literacy that addresses the needs of students to read and understand large volumes of complex materials and text as well as their needs to be able to express themselves effectively in writing (KU-CRL, 2009b). The Xtreme Reading program has a reading instruction core that assists students in developing accurate word recognition and increased fluency. In order to assist with reading comprehension, there is a linguistic comprehension instruction core that teaches students via strategies how to bring meaning to reading. The program is specifically designed for students in Grades 6-9 who are reading at or above a fourth-grade level and who have deficits in reading. The duration of the course is year-long at 45 minutes per day, 5 days a week, with a class size

of 12-15 students (U.S Department of Education, 2006).

The content of the Xtreme Reading program is composed of five parts: fluency, comprehension, vocabulary, decoding/phonics, and writing. During reading strategy instruction, paired practice is utilized and involves students reading timed passages to each other and checking accuracy and fluency while the teacher monitors the pairs of students and provides feedback. Comprehension is addressed in Xtreme Reading through the use of a meta-cognitive approach composed of four reading strategies: Self-Questioning, Visual Imagery, Paraphrasing, and Inference Strategies. The Self-Question Strategy is intended to teach students how to ask themselves questions while reading, make predictions, and then talk about answers while reading. The Visual Imagery Strategy is intended to teach students to make pictures in their minds while reading. The Paraphrasing Strategy is intended to help students put main ideas and details into their own words. The Inference Strategy is designed to help students ask and answer thoughtful questions as they read, infer, and predict information (U.S Department of Education, 2006).

Vocabulary development is taught using the final three reading strategies: LINC'S Vocabulary, Word Mapping, and Word Identification. The LINC'S Vocabulary Strategy is intended to teach students new ways to remember the meaning of vocabulary. The Word Mapping Strategy is taught to help students remember the meaning of vocabulary words. The Word Identification Strategy is intended to help students learn how to pronounce multisyllabic words and is also utilized for decoding/phonics by helping students to decode multi-syllable words found in secondary course textbooks and other materials.

The instruction of the reading strategies follows eight stages: (a) describing—the

teacher provides rationale and describes steps for the strategy; (b) teacher modeling—the teacher demonstrates the strategy aloud and gradually involves students; (c) verbal practice—students verbally rehearse the steps of the strategy until they can both understand and name the strategy steps; (d) guided practice—the teacher models expert reading behaviors using current and previously learned strategies and prompts students to use strategy steps; (e) paired practice—students practice the strategy with a peer using materials at their instructional level and provide feedback to each other, and the teacher monitors the pairs and provides feedback; (f) independent practice—students apply the reading strategy to a passage using a worksheet and then students take a reading comprehension test; (g) differentiated practice—students apply the reading strategy individually by reading to the teacher, and the teacher provides more specific individual feedback; and (h) integration and generalization—students apply strategies to text from other classes and participate in class discussion of strategy use (KU-CRL, 2009b).

Rationale for Proposing a Program Evaluation

The researcher, who is the principal of the school, met with the district's assistant superintendent of curriculum and instruction to discuss the Xtreme Reading program. During this conversation, there was a question as to whether the remedial reading program, Xtreme Reading, was effective at the principal/researcher's school site. The researcher/principal then explained to the assistant superintendent why an evaluation of the program would be a good idea to assess the effects of the reading program as related to increasing the literacy skills of the school's struggling readers. The assistant superintendent agreed that an evaluation would be helpful. The researcher/principal met with the School Leadership Team (SLT) members to discuss the researcher's study. The researcher then contacted the superintendent who also authorized implementation of the

study.

The researcher was given permission to collect data as an internal evaluator and had access to the data for the research period. The researcher's role is that of an internal evaluator of the Xtreme Reading program in Grades 6, 7, and 8. The evaluation results will be shared with the appropriate district representatives. The researcher's recommendations to improve the program will be indicated by the results of the evaluation.

Rationale for Using the Stufflebeam Model

After reviewing various program evaluation models, the researcher decided Stufflebeam's (2003) context, input, process, and product (CIPP) model would be appropriate to guide this study. The following is a description of some of the evaluation models that were reviewed and a rationale for selecting the CIPP model. According to Fitzpatrick, Sanders, and Worthen (2004), program evaluation can be classified into the five categories below:

1. Objectives-oriented approaches in which the focus was on specifying goals and objectives and determining the extent to which they have been attained.
2. Consumer-oriented approaches in which the central issue was developing evaluative information on products, broadly defined, and accountability, for use by consumers in choosing among competing products, services, and the like.
3. Expertise-oriented approaches which depended primarily on the direct application of professional expertise to judge the quality of whatever endeavor was evaluated.
4. Participant-oriented approaches in which involvement of participants (stakeholders) was central in determining the values, criteria, needs, data, and

conclusions for the evaluation.

5. Management-oriented approaches in which the central concern was on identifying and meeting the informational needs of managerial decision makers.

Stufflebeam (2003) defined the CIPP model as a systematic comprehensive framework for guiding formative and summative evaluations of projects, programs, personnel, products, institutions, and systems. The model was configured for use in internal evaluations conducted by the organization's evaluator, self-evaluations conducted by project teams of individual services providers, and contracted or mandated external evaluations. The CIPP model has spanned various disciplines and service areas, including education, housing and community development, transportation safety, and military personnel review systems.

Description of the Stufflebeam Model

The model's core concepts are denoted by the acronym CIPP, which stands for the four evaluation types within the model: context, input, process, and product (Stufflebeam, 2003). According to Stufflebeam (2003), the CIPP model could be presented as a formative and/or summative report (see Table 1 below for a summary of the uses of both formative and summative evaluation). In the formative report, evaluation helps guide the effort, which includes context, input, process, and product evaluations. Context evaluations ask what needs to be done. Input evaluations ask how it should be done. Process evaluations ask if it is being done. Product evaluations ask if it is succeeding. The evaluator would submit interim reports addressing these questions to keep stakeholders informed about findings, help guide decision making, and strengthen staff work.

When presenting a summative report, the evaluator referred to the accumulation

of context, input, process, and product information and obtained additionally needed information (Stufflebeam, 2003). A summative evaluation was a synthesis of all the findings to inform the full range of audiences about what was attempted, done, and accomplished; the bottom-line assessment of the program; and what lessons were learned (Stufflebeam, 2003).

Table 1

Stufflebeam's CIPP Model for Formative and Summative Evaluation Guidance

Characteristics	Formative Guidance	Summative Guidance
Role	Prospective use of model to assist decision making and quality assurance	Retrospective use of model to summarize merit, worth, and significance
Context	Identifying needed interventions Choosing and ranking goals based on needs, problems, assets, and opportunities	Comparison of goals and priorities to needs, problems, assets, and opportunities that were assessed
Input	Choosing a program or strategy based on assessment of alternate strategies and resources Examination of the work plan	Comparison of strategy, design, and budget of chosen program to competitors and to the needs of the target recipients
Process	Implementing the work plan based on monitoring and judging activities and evaluative feedback	Full description of process Record of costs Comparison of actual product to design
Product	Continuing, modifying, adopting, or discontinuing the project based on outcomes and side effects	Comparison of outcomes and effects to needs and to competitive programs Interpretation of results

Note. CIPP=context, input, process, and product.

Research Questions

The research questions were organized and developed around the four evaluation types contained in the CIPP model: (a) context questions, to determine the perceived issues that initially established a need for the remedial reading program Xtreme Reading;

(b) input questions, to determine the perceptions related to which remedial reading programs were examined prior to the implementation of Xtreme Reading; (c) process questions, to determine perceptions on how the Xtreme Reading program and the processes were implemented; and (d) product questions, to determine the program's impact, effectiveness, sustainability, and transportability (Stufflebeam, 2003).

Sustainability and transportability were not a focus of this study due to the grant funded Xtreme Reading program and limited size of the study. The product questions also sought to determine any unanticipated effects of the program. Throughout this study, the following three research questions guided the program review of the effects of the remedial reading program, Xtreme Reading.

1. To what extent will the SIM reading comprehension and vocabulary strategies (Self-Questioning, Paraphrasing, Inference, LINC'S Vocabulary, Word Mapping, and Word Identification) taught in the Xtreme Reading program impact a student's reading comprehension level as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the Test of Silent Contextual Reading Fluency (TOSCRF), and state-level end-of-grade (EOG) reading exams?

2. To what extent did year-long participation in the Xtreme Reading program increase student reading motivation and student perception of the value of reading, as measured by the Adolescent Motivation to Read Profile (AMRP) Survey?

3. To what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive a possible change in student reading comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies as measured by the Xtreme Reading Teacher Survey and Content Enhancement Routines for Teachers (CERT) Survey?

Professional Significance of the Problem

The 21st century classroom presents new challenges for both teachers and administrators in meeting the literacy expectations set by both the state and nation. A school-wide high literacy rate is crucial to the academic performance of a school. Baumann (1984) contended that the success of a school's literacy program is directly linked to a strong instructional leader. Many secondary school administrators have no formal training in literacy development in their school administration program; however, the federal government, state, and local school district leadership hold them accountable for literacy development, implementation, and evaluation (Zipperer, Worley, & Sisson, 2002).

The leadership of the school administrator is essential in communicating and demonstrating to all stakeholders that literacy is the foundation for all academic success. There is increased accountability for principals year after year to meet guidelines set for school academic proficiency performance. Goodlad (2004) explored that the poor literacy performance of the United States as a nation is centered on the amount of time devoted to literacy instruction. His argument was that student engagement is minimal in the area of reading during class time. According to Fullan (2002), anyone who is a researcher of literacy must align the research with the ever-changing dynamics that school leaders face every year. Principals must have the accessibility to solid research findings to assist with selecting and implementing effective literacy initiatives. Through the selection of these initiatives, school leadership must continue to monitor, communicate, and promote literacy development among teachers, staff, parents and the community.

The research in this study will add to the existing body of knowledge regarding

literacy at the secondary school level, specifically middle school, as principals implement effective literacy initiatives. The implementation of these initiatives demonstrates that the principal is creating a culture in which all stakeholders value literacy development. In developing a school-based culture, many secondary school teachers view their expertise as sufficient for teaching in a particular content area but inadequate for incorporating reading strategies (Woods, 2007). The instructional model that exists in the majority of middle and high schools today is not equal in providing enough opportunities to successfully address students who have significant reading deficiencies. There is a need at the secondary school level to identify effective approaches to assist in addressing reading deficiencies. The research in this study examines the effects of a research-based, remedial reading program to demonstrate to be a possible solution to assist in reduction of the significant reading deficiencies found in many secondary schools.

Overview of Methodology

In this study, the researcher assessed the effect of the Xtreme Reading program utilized to improve the reading skills of sixth- through eighth-grade students not performing at grade level at a middle school in the southeastern United States. Data were obtained through the use of sixth- through eighth-grade reading EOG-ready test performance, pre and postassessments of the TOSCRF, AimsWeb quarterly reading comprehension/fluency testing data (RCBM, MAZE), teacher perception data on the strategic implementation of the program as related to student reading achievement, and student reading motivation data based on participation in the Xtreme Reading program. Xtreme Reading was developed through research at KU-CRL and is a part of the CLC as a Level 3 Intensive Strategy for students who need more intensive remedial instruction than what can be provided in the general education classroom. Reading teachers and

other support personnel provide more intensive instruction through additional learning experiences in a pullout program or through the offering of a separate course.

Assessments for screening and ongoing data-based decision making are put in place to help identify students who have a minimal development of decoding skills and fluency levels associated with reading proficiency at a fourth-grade level minimum and need to develop the comprehension strategies to successfully meet the reading demands of the core curriculum (KU-CRL, 2009b).

The selection of students qualifying for the Xtreme Reading program is completed by creating a school-wide sixth- through eighth-grade reading profile of students reading below their current grade level. The student data are collected through (a) nonproficient score(s) on their past reading EOG tests (Level 1 or 2); (b) TOSCRF scores of students reading 1 or more levels below current grade; (c) AimsWeb Data (Reading Comprehension/Fluency testing data); and (d) English/language arts teacher recommendations. These students were sorted by grade level and placed in the Xtreme Reading classes during their elective course time of 55 minutes in order to keep the number of students small and manageable as aligned to the program recommendations.

This study was based on a mixed-methods research model. This form of research was the collection and analysis of both quantitative and qualitative data through the use of numbers and statistics from numerous formal and informal assessments as well as descriptive statistics from surveys used in order to answer the research questions.

Definition of Key Terms

Adolescent literacy. “The set of skills and abilities that students need in Grades 4 through 12 to read, write, and think about the text materials they encounter” (National Governors Association [NGA], 2005, p. 6).

Content Enhancement Routine (CER). An instructional method that relies on using powerful teaching devices to organize and present content in an understandable and easy-to-learn manner. Teachers identify the content that they deem to be most critical and teach it using powerful teaching routines that actively engage students (Lenz, Ehren, & Deshler, 2005).

Content literacy. Learning based upon text with an expanded emphasis on “reading within the broader context of using language and literacy to learn” (Vacca & Vacca, 1993, p. xiii).

CLC. A tool for enabling teachers and administrators to evaluate literacy instruction/services offered within a school and to formulate a plan for improving the quality of those services (Lenz et al., 2005).

Intervention. “Integrated, strategic, meaningful, and if necessary, intensive curriculum and instruction to powerfully enrich and expand adolescents’ reading lives” (Greenleaf & Roller, 2002, p. 495).

Lexile. A metric used for matching text to reader (Scholastic, Inc., 2001).

Literacy. “An individual’s ability to use printed information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential” (Kirsch et al., 1993, p. 2).

Normal Curve Equivalent (NCE). A score derived from an achievement or assessment test; it is a way of measuring where a student falls along the normal curve, which is divided into equal intervals from 1 to 99. These scores can be averaged and compared from 1 year to the next. An NCE score that stays the same from 1 year to the next indicates a normal growth pattern for that year (Scholastic Testing Service, Inc., 2013).

Reading comprehension. A “crafting process—one in which understanding is constructed by students, authors, and teachers working artistically together to create knowledge” (Bock, 1999, p. 8).

Xtreme Reading. A remedial reading program that combines research-based practices of reading instruction with the use of specific strategies in the classroom to increase reading achievement and proficiency (U.S. Department of Education, 2006).

SIM. A system of student learning strategies (called the Learning Strategies Curriculum) and teacher instructional routines (called Content Enhancement). SIM was developed over a period of 20 years at the University of Kansas to support students with learning disabilities (Houge, Geier, & Peyton 2008).

Struggling readers. “Adolescents who for whatever reason are unable to keep up with the reading demands of the school curriculum” (Alvermann, 2001, p. 679).

Students of diverse backgrounds. “Students in the United States who are: usually from low-income families; of African American, Asian American, Latina/o, or Native American ancestry; and speakers of a home language other than standard American English” (Au, 1998, p. 2).

TOSCRF. A quick and accurate method of assessing the silent reading ability of students ranging in age from 7 years 0 months to 18 years 11 months. It measures the speed with which students can recognize individual words in a series of printed passages that become progressively more difficult in their content, vocabulary, and grammar (Hammill, Wiederholt, & Allen, 2006). It yields raw scores, standard scores, percentiles, and age and grade equivalents. The TOSCRF measures a student’s essential contextual reading abilities (i.e., word identification, word meaning, sentence structure, comprehension, and fluency).

Traditional reading remediation. A resource pullout program to provide remedial services to children after they have demonstrated reading difficulty (Snow, Burns, & Griffin, 1998).

Delimitations of the Study

Participants in this study were restricted only to students and instructors in the Xtreme Reading classroom and the students' English/language arts teachers. Only those students qualifying for the program based on performance data from reading EOG exams, TOSCRF, AimsWeb Data, and English/language arts teacher recommendations received the intensive treatment of the seven reading strategies of the SIM. The scope of this study only includes those targeted students at one middle school, not other middle schools in the district where the study took place.

Organization of the Study

Chapter 1 introduces deficiencies in adolescent literacy as a major barrier to successful academic performance including completion of high school. The roles and expectations for the secondary school principal must be to keep this at the forefront of all school, community, and district-wide initiatives and programs. The principal must be the instructional leader to address the reading deficiencies by implementation of an effective, school-wide literacy program to ensure that all students are prepared for the demands of the 21st century. Chapter 2 presents a review of relevant and related literature on the topic of adolescent reading through history and research which supports the need for reading intervention programs at the secondary level and research which does not support this level of intervention. The methodology for the research in this study is outlined in Chapter 3. The findings of data analyses from the applied research to answer the questions posed in this study are presented in Chapter 4. A full summary of the research

study, findings, and recommendations for practice and continued research is included in Chapter 5.

Chapter 2: Review of Related Literature

Introduction

This chapter presents a review of the research and literature surrounding adolescent literacy with a focus on remedial reading programs at the secondary school level. The literature review is organized around current practices in the area of adolescent reading, highlighting key studies, and the work of adolescent reading researchers. The historical background of adolescent literacy, expansion of content literacy to adolescent literacy, adolescent literacy research, sociocultural perspectives on struggling adolescent readers, academic literacy instruction for adolescents, effective reading programs for middle and high school students, and SIM and Xtreme Reading efficacy studies are explored in this review of literature. The literature review process began with the search for recent research on adolescent literacy.

Multiple databases were used to examine the application and outcomes of interventions utilized to address reading deficiencies at the secondary school level. In order to locate peer-reviewed studies, electronic databases were explored, such as Education Resources Information Center (ERIC), Elton B. Stephens Company (EBSCOhost), InfoTrac, Journal Storage (JSTOR), American Psychological Association (PsycINFO), and Dissertation Abstracts International (DAI). Readings from books and peer-reviewed journals also added to the foundation for this literature review on adolescent literacy. Gaps in the research appeared in literature examining the needs of struggling adolescent readers and existing research-based interventions aimed at increasing reading growth at the secondary school level. Finally, the review includes a synthesis of literacy studies that are of qualitative, quantitative, and/or mixed-method designs of remedial reading programs yielding significant results with struggling

adolescent readers.

History of Adolescent Literacy

Literacy instruction is considered to be at the forefront of elementary school curriculum. Few things could be more important than developing reading skills early in life in order to succeed in middle and high school, college, and eventually the workplace (Biancarosa & Snow, 2004; D'Amico, 2002; Heller & Greenleaf, 2007). Without continued, ongoing literacy instruction, students who are not performing at grade level once entering the middle grades will likely never catch up to their peers who are performing at grade level. At the secondary level, there has been little investment in literacy instruction and/or intervention, resulting in reading scores from the NAEP to show limited to no increase since the 1970s when this assessment was created. Today, more than two thirds of all eighth graders read at less than a proficient level and half of those students are so far behind that they are scoring below what the U.S. Department of Education considers as its basic level of reading performance (Heller & Greenleaf, 2007).

Since the beginning of organized schooling in the United States, reports and studies were written to address the improvement of reading instruction. In the early 20th century, scholars debated how students best learned to read. Gray (1919) contended that reading could and should be transferred to specific subject areas. Thorndike (1917) and Yoakum (1928) both argued that reading in the content class would help students address the differing demands of the discipline (Meyer, Stewart, Moorman, & Brozo, 2012). The 1920s saw the development of content reading as a topic of literacy research. In 1925, Gray conducted content reading research, and in the same year, Whipple (1925) researched with a focus on reading across content areas. The *Yearbook for the 24th National Society for the Study of Education* (Whipple, 1925) was published as a report on

research of efforts to improve instruction in reading for school officers and teachers with suggestions for improvement in reading instruction based on experimental evidence.

Interests in secondary, content-area literacy skills continued through the 1930s and 1940s. McCallister (1936) published the first book, *Remedial and Corrective Instruction in Reading: A Program for the Upper Grades and High School*, on differentiated reading needs in all content areas. McCallister argued that every teacher should provide guidance in reading, regardless of the subject taught by the teacher. *Developmental Reading in High School*, published by Bond, Bond, and Wagner (1941), was written for high school teachers and provides basic information of developmental reading programs and descriptions of techniques, which will assist in the teaching of reading at the secondary level.

In the 1950s, with the onset of the Cold War, education began to focus on how the United States performed in comparison to the Soviet Union. During this time period, Flesch (1955) authored *Why Johnny Can't Read*, which ushered in an era in literacy education that focused on phonics as the primary focus of reading instruction, whereas content-area reading and reading comprehension were secondary foci. *Why Johnny Can't Read* became a best seller and infuriated the progressive educators who changed methods of reading instruction in the 1930s. Flesch explained why so many children in American schools were not reading at grade level including students who were having great difficulty learning to read. The traditional alphabetic-phonics method, in which one learns how to sound out new words, was removed and replaced with a new sight, whole-word, or look-say method that teaches children to read English.

The 1970s saw a return of interest in content literacy. In 1978, Hal Herber wrote *Teaching Reading in the Content Areas*, an influential textbook on contextualized reading

instruction through the teaching of reading comprehension strategies within all academic content areas in the K-12 system, particularly at the middle and secondary school levels. Herber also established the Reading Research Center at Syracuse University where the emphasis of reading comprehension strategies for various disciplinary texts was applied and studied among literacy scholars (Meyer et al., 2012). During the 1980s, cognitive psychology played an important role in the evolution of learning strategies across the content areas. In this movement, strategic processes for reading and thinking about texts (e.g. Question-Answer Relationship Strategy [QAR], micro-macro text analysis structures, and summarizing) assisted students to approach content reading in a deliberate, systematic manner. During the same time that reading instruction was focused across all content areas, research from literacy scholars was beginning to recognize the importance of domain-specific knowledge.

In the past decade, a grave criticism of content-area reading and a new support for a disciplinary literacy alternative developed as a means for addressing deficiencies in struggling adolescent readers. Moje (2007) argued that generic literacy strategies do not challenge adolescents as those that are embedded in a specific, academic discipline. In addition, Shanahan and Shanahan (2008) raised several concerns about generic content literacy strategies. They questioned whether generic strategies are effective for secondary disciplinary teachers. From their research on content literacy and resistance by teachers to implement, Shanahan and Shanahan found that teachers are not embracing generic literacy strategies due to the teachers' needs to know the unique literacy demands of their own discipline. The disconnect between a vision for literacy improvement and a lack of prior teacher preparation or knowledge of literacy strategies makes the shift to school-wide implementation nonexistent. Draper (2008) also emphasized that high-

quality secondary content teachers do not utilize distinct literacy practices that are aligned to their discipline. This lack of utilization is due to no specific content-area literacy preparation for the secondary teachers. Draper concluded that teachers who use generic literacy strategies do not meet the needs of students who need specific, disciplinary strategies in order to comprehend higher levels of written text.

The current economic status of the United States has forced legislators to reexamine the goals of literacy development in schools. Almost 40% of high school graduates lack the reading and writing skills that employers seek, and almost one third of high school graduates who enroll in college require remediation classes such as noncredit remedial English and remedial math (Achieve, Inc., 2005). Over the past decade, state and national standards have evolved to reflect the demands of the 21st century. The newly adopted Common Core State Standards (CCSS) demonstrate this focus on literacy. The literacy strand within the CCSS not only emphasizes the importance of literacy in the English/language arts classroom but within a variety of subjects as well (i.e. science, social studies, and technical areas) (Meyer et al., 2012). Given the increasing expectations placed on secondary teachers in public school settings, these educators must reevaluate how to prepare for literacy instruction to better address the specific literacy demands placed on students.

Moje, Young, Readence, and Moore (2005) stated that current literacy developmental processes used in schools are based on the premise that learning to read ends in elementary school, specifically fifth grade. It is during the transition from elementary to middle school that students need to shift from learning to read to reading to learn (Herber, 1978). Outdated systems of literacy instruction in public education have continued the notion that an emphasis on literacy is nonexistent in the secondary school

setting. Literary needs at the secondary level expand within the various content disciplines, curriculums, and texts (Moje, 2007). The expansion of literary needs creates new demands for different strategies of teaching literacy at the secondary level.

In order to respond to the growing problem of deficiencies in adolescent readers, the United States federal government launched an unprecedented effort of education reform for literacy and overall academic expectations, the No Child Left Behind (NCLB) Act of 2001 (U.S. Department of Education, 2002). The signing of this legislation began a new shift and focus for public education in relation to student achievement. All public schools will be held to higher expectations in order for all students to have better opportunities for academic success. Whereas, NCLB holds students to higher academic expectations and rigor, there continues to be numerous students leaving secondary schools without the literacy skills needed to be successful in a global community. Additional reading intervention programs continue to be developed at the national level. President George W. Bush (2004) created a \$100 million reading intervention program as a part of NCLB in 2004 for middle and high school students to address the problem of literacy development. The President's 2006 budget included \$200 million to support the Striving Readers initiative to improve the reading skills of middle and high school students (White House Press Release, 2005). Despite federal legislation and higher stakes of accountability at the secondary level, no results of improved literacy methodology or pedagogy by content teachers has been demonstrated (O'Brien, Stewart, & Moje, 1995). Even with the enduring concept that every teacher is a reading teacher (Gray, 1937) tied in with several decades of content area literacy, significant increases in student achievement at the secondary level have not occurred (Fisher & Ivey, 2005).

Now more than any other time in public education, adolescents entering work

and/or postsecondary education face increased demands to read at higher levels than any other generation who came before them (Moore, Bean, Birdyshaw, & Rycik, 1999).

Assistant Secretary to the Office of Vocational and Adult Education, U.S. Department of Education, Dr. Carol D'Amico (2002), described the literacy challenge as a “threat to national economic security” (p. 4). She established her position that adolescent literacy is a national threat based on (a) in secondary schools, the levels of achievement, especially for reading and math, decline between Grades 4-12 because of the misconception that reading instruction stops after third grade; (b) many high school graduates enter college unprepared in reading and math. In community colleges, 40-60% of freshmen need remedial courses in math and English; (c) data from international comparisons of 16 to 18 year olds show that even the top 10% in the United States cannot compete with the top 10% of 16 to 18 year olds in other industrialized countries; (d) 25% of students 16 to 18 years old leave school without a diploma. These students drop out because they cannot read well enough to do the course work. About 56% of Hispanics, African Americans, and students with disabilities do not finish with a diploma 4 years after they start. They see it as impossible to catch up, so they give up and drop out; and (e) the average eighth grader who is nonwhite and who is from a low-income family reads at three to four grade levels lower than Whites and the more advantaged (D'Amico, 2002).

Expansion of Content Literacy to Adolescent Literacy

Research on adolescent literacy over the past 2 decades has shifted from the content literacy perspective to a model that contextualizes students' experiences inside and outside the classroom environment (Bean, Bean, & Bean, 1999; Gee, 1996; Moje, 2000). Sociocultural theorists have contended that language and literacy are situated contextually and that adolescents are shaped by the way they use literacy tools (Gee,

1996; Moje, 2000). Recent researchers, describing the content literacy approach as too restrictive, have argued that it should be expanded to include adolescent literacy (Alvermann, Hinchman, Moore, Phelps, & Waff, 1998; Bean & Readence, 2002; Elkins & Luke, 1999, 2000; Moje, 2000; Stevens, 2002; Swafford & Kallus, 2002). The adolescent literacy model recognizes multiple discourses and contextual learning environments (Behrman, 2003).

Swafford and Kallus (2002) interviewed key researchers such as Alvermann, Bean, McKenna, Moore, and Ruddell regarding their views on the expansion of content literacy. These major literacy researchers have expanded their conceptualization of literacy to include the social and cultural contexts. This shift from content literacy to adolescent literacy is grounded in situated cognition (Brown, Collins, & Duguid, 1989). Situated cognition recognizes internal and external processes that serve as natural dimensions in new learning (Kirshner & Whitson, 1998). To accelerate literacy development, curriculum writers and teachers are tasked with finding the nexus between adolescents' multiple literacies and the secondary school classroom (Moje, 2000).

The International Reading Association (IRA) Commission on Adolescent Literacy created a position statement on adolescent literacy in 1999 (Moore et al., 1999). The position statement helps all stakeholders understand the literacy needs of the adolescent learner. The literacy needs of students entering the 21st century are becoming increasingly complex according to the IRA Commission on Adolescent Literacy.

Adolescents will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imaginations so they can create the world of

the future. In a complex and sometimes even dangerous world, their ability to read will be crucial. Continual instruction beyond the early grades is needed.

(Moore et al., 1999, p. 3)

The following statements help define the vision for adolescent literacy and provide a framework for the rights of adolescent readers as recommended by the Commission on Adolescent Reading of the IRA: (a) adolescents deserve access to a wide variety of reading material that they can and want to read; (b) adolescents deserve instruction that builds both the skill and desire to read increasingly complex materials; (c) adolescents deserve assessment that shows them their strengths as well as their needs and guides their teachers to design instruction that will best help them grow as readers; (d) adolescents deserve expert teachers who model and provide explicit instruction in reading comprehension and study strategies across the curriculum; (e) adolescents deserve reading specialists who assist individual students having difficulty learning how to read; (f) adolescents deserve teachers who understand the complexities of individual adolescent readers, respect their differences, and respond to their characteristics; and (g) adolescents deserve homes, communities, and a nation that will support their efforts to achieve advanced levels of literacy and provide the support necessary for them to succeed (Moore et al., 1999).

Researchers of adolescent readers proclaimed the adolescent literacy position statement by the Commission on Adolescent Reading of the IRA as being long overdue (Elkins & Luke, 1999; Kirk, 2000; Rycik & Irvin, 2001). Students need reading that extends beyond the concept of the reading specialist to “engagement with critical multiliteracies” (Elkins & Luke, 1999, p. 213). The literacy complexities of the 21st century require a new set of skills. Reich (1992) described the skill sets that students

need now to produce valuable ideas, rather than objects, which were required during the industrial age. The ability to work with multimedia forms of text and information is becoming the requirement for the *symbolic analyst* (Reich, 1992). The symbolic analyst is replacing the industrial worker of the past. This group forms the core of the enterprise webs and includes the problem solvers, the problem identifiers, and the strategic brokers. These analysts compete in the global market but do not trade material objects (Knight & Yorke, 2002). Elkins and Luke (1999) expanded the IRA's position statement on adolescent literacy:

Literacy education has significant social and cultural outcomes, as well as cognitive and behavioral ones. In addition, adolescent literacy education is the very forum where we can shape identities and citizens, cultures, and communities. This is not something we can do by default or as an afterthought. We need to rethink our strategies and approaches in line with a better, stronger understanding of youth cultures and adolescents' everyday lives. (p. 215)

Fifteen critical elements of effective adolescent literacy programs were outlined in the Reading Next report from the Alliance for Excellent Education (Biancarosa & Snow, 2004). The report outlined 15 key elements at improving middle and high school literacy achievement in the 21st century: (a) direct, explicit comprehension instruction, which is instruction in the strategies and processes that proficient readers use to understand what they read, including summarizing, keeping track of one's own understanding, and a host of other practices; (b) effective instructional principles embedded in content, including language arts teachers using content-area texts and content-area teachers providing instruction and practice in reading and writing skills specific to their subject area; (c) motivation and self-directed learning, which includes building motivation to read and

learn and providing students with the instruction and supports needed for independent learning tasks they will face after graduation; (d) text-based collaborative learning, which involves students interacting with one another around a variety of texts; (e) strategic tutoring, which provides students with intense individualized reading, writing, and content instruction as needed; (f) diverse texts, which are texts at a variety of difficulty levels and on a variety of topics; (g) intensive writing, including instruction connected to the kinds of writing tasks students will have to perform well in high school and beyond; (h) a technology component, which includes technology as a tool for and a topic of literacy instruction; (i) ongoing formative assessment of students, which is an informal, often daily assessment of how students are progressing under current instructional practices; (j) extended time for literacy, which includes approximately two to four hours of literacy instruction and practice that takes place in language arts and content-area classes; (k) professional development that is both long-term and ongoing; (l) ongoing summative assessment of students and programs, which is more formal and provides data that are reported for accountability and research purposes; (m) teacher teams, which are interdisciplinary teams that meet regularly to discuss students and align instruction; (n) leadership, which can come from principals and teachers who have a solid understanding of how to teach reading and writing to the full array of students present in schools; and (o) a comprehensive and coordinated literacy program, which is interdisciplinary and interdepartmental and may even coordinate with out-of-school organizations and the local community (Biancarosa & Snow, 2004). Biancarosa and Snow (2004) also recommended that the implementation of an effective secondary reading intervention should include at a minimum professional development, formative assessment, and summative assessment. The professional development and assessment components are

essential for sound instructional effectiveness and monitoring.

Adolescent Literacy Research

The United States Congress charged the Director of the National Institute of Child Health and Human Development (NICHD) in 1997 to convene a national panel to assess the status of research-based knowledge, including the effectiveness of various approaches to teach children to read (National Reading Panel, 2000). The National Reading Panel consisted of 14 representatives of postsecondary institutions, reading teachers, school administrators, and parents. The National Reading Panel developed standards for an extensive review of research literature, adopting evidence-based methodological standards to determine the efficacy of research conducted on existing reading interventions. The panel examined approximately 115,000 experimental and quasi-experimental studies that had been conducted since 1966. Studies included in the meta-analysis were experimental in design, showed causality between practice and outcomes, and used large sample sizes to examine effectiveness of “behaviorally based interventions, medications, or medical procedures proposed for use in the fostering of robust health and psychological development and the prevention or treatment of disease” (National Reading Panel, 2000, p. 5). The panel summarized their conclusions in five areas: (a) alphabetics (phonemic awareness and phonics instruction); (b) reading fluency; (c) reading comprehension (vocabulary, text comprehension, teacher preparation); (d) teacher education; and (e) computer technology and reading instruction. The National Reading Panel (2000) research and findings served as a basis for much of NCLB. The National Reading Panel highlighted phonemic awareness based on correlational studies indicating phonemic awareness and letter knowledge as the primary predictors of how well children will learn to read with 2 years of instruction. The panel defined phonemic

awareness as the child's ability to focus on and manipulate phonemes in spoken words. The specific phonemic awareness skills examined in the study included phoneme isolation, identification, categorization, blending, segmentation, and deletion (IRA, 2002). Based on a meta-analysis of 52 studies, the panel concluded that the research findings supported the premise that teaching children to manipulate phonemes systematically will significantly improve their reading and spelling abilities.

The meta-analysis of 38 studies, which resulted in 66 treatment-control group comparisons, provided significant evidence that phonics instruction, or linking sounds to letter symbols and combining them to make words, produces significant results for children in kindergarten through sixth grade and for readers having difficulty learning to read. Based on strong evidence collected to support that methodology, the panel recommended tailored systematic phonics implementation as an appropriate strategy for routine classroom instruction; that is, teaching a planned sequence of phonics elements rather than highlighting elements as they appear in text (IRA, 2002). The National Reading Panel (2000) noted that the effect of phonics instruction depends on the type of instruction. The panel concluded that synthetic phonics, larger unit phonics that blend subparts of words and phonemes, and miscellaneous systemic phonics programs were the most effective pedagogies.

With regard to reading fluency, the panel concluded that guided oral reading with feedback has significant positive impact on word recognition and comprehension based on 16 studies that met the criteria for inclusion in the National Reading Panel meta-analysis. The panel was unable to determine from the extensive review of literature whether or not silent reading results in improved reading fluency. Recognizing that there is a close relationship between fluency and comprehension, the panel recommended that

silent reading be combined with other types of reading instruction for effective pedagogy.

The panel analyzed the research on reading comprehension, or the construction of meaning, from three perspectives: vocabulary development, text comprehension instruction, and teacher preparation in comprehension strategies instruction. The panel examined more than 20,000 research citations on reading comprehension but was unable to conduct a meta-analysis since most of the research did not meet the National Reading Panel research methodology criteria. Based on a trends-across-studies analysis, the panel recommended that instructional methods include a combination of methods for increased effectiveness, including the teaching of vocabulary directly and indirectly in context. Additional effective instructional methodologies mentioned by the panel included repetition, multiple exposures to vocabulary words, and use of computer technology. Based on 205 studies that did meet the National Reading Panel research criteria, the panel concluded that teachers should use a combination of methods to meet the needs of students. The needs of struggling adolescent readers are varied and need a variety of methods to effect change. The panel narrowed 16 categories of text comprehension instruction to seven that had solid scientific bases for instruction: (a) comprehension monitoring, (b) cooperative learning, (c) use of graphic organizers, (d) question answering, (e) question generation, (f) story structure, and (g) summarization (National Reading Panel, 2000).

The conclusions drawn by the National Reading Panel were broad, based on a wide range of reading research. The panel's suggestions of applying phonemic awareness, phonics, vocabulary development, fluency, and reading comprehension strategies caused controversy in the reading research community. Garan (2005) wrote,

Instead of an evidence-based guide that can inform practice in reading,

instruction, we are faced with a biased report characterized by misreported, over generalized findings that do not inform but rather mandate education policy—ironically—in the name of science. (p. 438)

There was strong debate regarding the limitation of using only studies that were experimental in design. The panel did not select qualitative research studies that were descriptive, observational, or correlational (National Reading Panel, 2000). The omission of such qualitative studies also fueled the controversy in the educational research community regarding the National Reading Panel report, including the scientific meta-analysis methodology (Camili & Wolfe, 2004).

Strengths of the meta-analysis research study included the magnitude of the study and the high standard for research methodology criteria, which were similar to the research criteria often used to determine efficacy of medical interventions. The panel excluded qualitative studies from the review, drawing criticism from many in the educational community; however, classroom teachers can benefit from the panel's recommendations regarding strategies that hold the most promise for specific types of learners. Potential weaknesses of the work conducted by the National Reading Panel included the small samples involved in some of the studies and the overgeneralization of findings (Garan, 2005). Prior to implementing interventions outlined in the panel's report, school administrators and teachers need to carefully study the populations upon which the research was based. Researchers such as Allington (2005) argued that “almost every curriculum scheme works in some sites, and none has ever worked well everywhere. That has been the finding time after time when state and federal educational initiatives have been evaluated” (p. 467). Despite the criticisms of the National Reading Panel report, research is vital for improving the teaching of reading, particularly for

adolescents who continue to struggle with reading in secondary school. The panel's meta-analysis report includes a number of research-based strategies with compelling evidence to suggest pedagogical effectiveness when implemented correctly and provides a framework for reviewing additional reading studies (National Reading Panel, 2000).

Sociocultural Perspectives on Reading: Struggling Adolescent Readers

Through a review of current studies of the school site experiences of adolescent readers, implications were found for readers who have been labeled as less proficient than their peers in reading skills and behaviors. The literature adds depth to understanding adolescent readers in general but, most importantly, highlights the habits and values of adolescent readers who struggle with text in school settings and identifies factors that teachers and policymakers should take into account when designing instruction for struggling adolescent readers. The sociocultural paradigm has a significant presence in current literacy studies and sheds light on how social context is treated as an individual and integral part of literacy learning. Sociocultural perspectives on literacy, sometimes referred to as “the New Literacy Studies” (Gee, 2000, p. 412), affirm that reading is not a stand-alone practice but rather one embedded in socially situated identity and activity. With the recognition that reading is a culturally situated activity, sociocultural literacy researchers seek to understand the contextually bound experiences of adolescent readers. As Cherland (1994) stated, “Every person is part of a culture, part of a society, and each person participates in cultural norms that determine how they act as readers” (p. 6). Researchers attending to the intersections of race and literacy identity examine how culture permeates reading behavior. Writing about her son's “struggle of literary personhood,” Willis (1995) underscored the culturally specific literacy legacy of her home: “We select our artwork, magazines, novels, television programs, music, videos,

and movies to reflect interests in African American life and society” (p. 441) and use racial consciousness to help shape her son’s literacy identity.

Recent inquiries into cultural frameworks (Lee, 1995) speak to the need for situated literacy instruction that specifically addresses the everyday experiences of African-American students to develop academic literacies while communicating in ways that are culturally familiar (Lee, Spencer, & Harpalani, 2003). Tatum’s (2000) study of excluded African-American readers demonstrates that racial experiences are highly relevant to their reading lives. “Students blamed derogatory remarks from previous teachers as powerful deterrents to reading” (Tatum, 2000, p. 55). Tatum cited comprehension and strategy difficulties that affected the students’ reading abilities, as well as fear of embarrassment, which prevented the students from academic risk taking.

For some ethnic and racial groups, the literacies that constitute their cultural practice are not valued in school. Noll (1998) documented the rich literacies of Lakota and Dakota American Indian youth, literacies that are intimately linked with their ethnic and racial identity. These links to ethnic and racial identity give opportunity for teachers to misjudge students’ capabilities as a result of judging students by dominant culture standards and not the students’ own cultural standards. In the case of African-American youth and other students of color, this misjudgment is particularly worrisome with respect to the differing achievement gap between students of color and European-American students (Franzak, 2006). Evolving understandings of literacy as a sociocultural practice have certainly challenged dominant concepts of literacy achievement, but as Tatum (2000) and Lee (1995) stated, marginalized groups, Black males in particular, continue to suffer because of inadequate and misguided literacy education. There continues to be a need for research that investigates the literacy

learning of other marginalized adolescent populations, including Native-American students and economically disadvantaged rural students.

Studies such as Tatum's (2000) demonstrate that one struggling reader is not every struggling reader. Studies based on gender of adolescent readers also contribute to our understanding of how *one-size* literacy does not fit all. Finders (1997) studied the literacy experiences of two different but both academically successful groups of girls. It was found, as with groups of boys studied by Smith and Wilhelm (2002), that social contact with peers was extremely important in adolescent literacy development. Cherland's (1994) study of Canadian girls' fiction reading demonstrates the highly gendered nature of reading, maintaining that in the community investigated, "reading was a feminine activity, and the Oak Town children knew this" (p. 89). This study also argued that such reading practices not only define and shape ideas about literacy but also are powerful influences in the construction of gender. Smith and Wilhelm offered a detailed exploration of young men's literacy lives and brought to light a number of interesting observations that challenge assumptions about gender and reading. They found that their participants were not resistant to reading but did exhibit preferences for shorter texts, texts without ambiguous endings, and texts that contributed to their feelings of competence and control.

Researchers concerned with the connection between literacy and gender acknowledge that gender is but one of several important characteristics that influence reading. The complexities of the literacy experiences documented by Hinchman, Payne-Bourcy, Thomas, and Olcott (2002) and Smith and Wilhelm (2002) reinforce what Beach (1993) described as a limitation of cultural perspectives on reader response: "Given differences in purposes, needs, expectations, or social context, the same reader may apply

quite different formations” (p. 151). Beach’s caution to recognize the individuality of every reader does not diminish the need for every reader to have a meaningful model reader that he or she can respect and emulate. Adolescent readers do so because if they can see others engaging successfully in literacy activities and these readers hold them in high esteem, they are more inclined to participate in the literacy activities at a high performance level. The key part is finding who these readers see themselves as being and exposing them to this model reader on a frequent basis. Struggling readers need models of reading that value their identities and provide a means of addressing the multiple influences that affect their reading experiences (Moje et al., 2005).

Academic Literacy Instruction for Adolescents

Vocabulary instruction. Fluently and accurately identifying words in text is critical to successful reading. Knowing the meanings of those words is no less essential, particularly in relation to reading comprehension and overall academic success (e.g., Baumann, Kame’enui, & Ash, 2003; National Reading Panel, 2000). Capable readers have large, sophisticated vocabularies, nurtured by reading a great deal across a wide variety of genres. Struggling adolescent readers generally avoid reading as an independent activity, thus limiting their exposure to new vocabulary (Cunningham & Stanovich, 1998). Further, the school-related textbooks that they are required to read often fail to provide legitimate opportunities for vocabulary learning (Hirsch, 2003). Textbooks are generally too difficult for struggling readers and require a level of content-specific prior knowledge not typical of this group (Hirsch, 2003). These students, adolescents who choose not to read independently and who struggle to access content-related texts, perform at lower levels than their more skilled peers in vocabulary knowledge and use and, as they get older, fall further and further behind (Stanovich,

1986).

Experimental research is scarce on effective vocabulary instruction with older students identified as having reading deficiencies due partly to the nature of vocabulary learning and to the difficulty of reliably measuring improved vocabulary (Scammacca et al., 2007). The typical study on this topic implements a treatment of interest to teach one group of participants a list of new words, withholds the treatment from a second group of similar students, and then measures outcomes by asking both groups of students to demonstrate their knowledge of the vocabulary taught during the intervention. While this approach is perfectly reasonable, its results are generally self-evident; students who are taught the meanings of new words are more likely to know their meanings than a similar group of students who do not participate in the intervention.

Direct vocabulary instruction may have a slight accelerative effect (Stahl, 2003), but the most reliable gateway to improved vocabulary for older students appears to be reading a lot, reading well, and reading widely (Cunningham & Stanovich, 1998). While introducing struggling students to serial lists of new words on a daily or weekly basis is not likely to close the gap with more skilled readers, it can improve their ability to process important content-area texts (Baumann et al., 2003). Several instructional practices deserve mention. First, instruction that focuses on words that are useful to know and likely to be encountered across a variety of settings may have the widest impact. Research by Beck, McKeown, and Kucan (2002) suggested breaking words into three tiers. Tier 1 words are words students are likely to know (e.g., sad, funny). Tier 2 words appear frequently in many contexts (e.g., regardless, compromise). Tier 3 words appear rarely in text or are content specific (e.g., irascible, biogenetics). Teachers focus vocabulary instruction on Tier 2 words drawn from content-area materials that contain

words that students are likely both to need, due to exposure across contexts, and will learn well due to repeated opportunities for practice and use.

Learning new and challenging vocabulary encountered in specific content-related texts, such as those used in science and social studies classes, may be best facilitated by providing direct instruction that focuses on simple definitions, examples and nonexamples, and the use of semantic maps (Kim, Vaughn, Wanzek, & Wei, 2004). Direct instruction of key words can increase vocabulary knowledge and reading comprehension, and repeated exposure to new words is also critical (Stahl & Fairbanks, 1986). Many English words have multiple meanings, and students need structured opportunities for practice in a variety of contexts that represent the range of the new word's use and meaning (Stahl & Fairbanks, 1986). Up to 12 exposures may be necessary to develop a deep understanding of a new word (McKeown, Beck, Omanson, & Pople, 1985).

Word-study strategies can support learning of a new vocabulary and students can be taught to use reference aids such as dictionaries and online resources, identify context clues, and use root words and prefixes/suffixes to break words into meaningful parts (Roberts, Torgesen, Boardman, & Scammacca, 2008). Additional vocabulary development can also be supported by the use of students reading diverse texts independently (i.e., 95% word reading accuracy) and instructionally (90% accuracy). Strategically selecting texts that expose students to targeted words can provide valuable practice. Finally, students' vocabulary knowledge can be assessed prior to instruction on specific content, and curriculum-based progress monitoring can be used to track development over time (Espin, Busch, & Shin, & Kruschwitz, 2001).

Reading comprehension instruction. While the ability to decode words fluently

and to understand the meaning of individual words is important, the point of the whole initiative is to understand the meaning of written text. Reading well is a demanding task requiring coordination of a diverse set of skills. Good readers monitor their understanding by linking new information with prior learning, and when comprehension breaks down, they utilize appropriate comprehension strategies on their own, such as adjusting their reading rate or strategically rereading passages (Roberts et al., 2008).

Struggling readers, even those with adequate word-level skills and acceptable fluency, often fail to use these types of reading strategies, either because they do not monitor their comprehension or because they lack the necessary tools to identify and repair misunderstandings when they occur. Intervening in these areas may improve comprehension outcomes for struggling adolescent readers as shown in research conducted and reviewed by Scammacca et al. (2007). From the findings on a meta-analysis of 31 studies, the overall estimate of the effect size across all studies was 0.95. An effect size of almost one means that, on average, the treatment groups in these 31 studies outscored the comparison groups (or the alternate treatment groups) by nearly one standard deviation. In the 11 studies that used a standardized, norm-referenced measure, the average effect was 0.42, which reflects an advantage for the treatment group(s) of just under one half of a standard deviation. The variance across all 31 studies was statistically significant as measured by the Q statistic Ljung - Box test. In the meta-analysis, the presence of significant variation means that a factor or factors in addition to the intervention may be contributing to the effect-size estimate (Scammacca et al., 2007).

Gains in reading comprehension are critical if struggling adolescent readers are to succeed in content-area classes, demonstrate proficiency on high-stakes state reading tests, or read for pleasure. For this reason, a separate meta-analysis was conducted on the

23 intervention studies in order to measure the specific impact of these interventions on one or more measures of reading comprehension. The eight studies that included a standardized, norm-referenced measure of reading comprehension were also considered separately. Results for the 23 studies that included one or more measures of reading comprehension and the eight studies that included a standardized, norm-referenced measure of reading comprehension are discussed in order to address this research question. With few exceptions, the pattern of results for reading comprehension mirrors the results from the overall analysis of all outcome measures. The estimate of effect size across all 23 studies was 0.97. Participation in the intervention(s) was associated, on average, with reading comprehension skills almost one standard deviation greater than the skills of students not participating in the treatment (i.e., comparison group[s] or the alternate treatment group[s]). The overall effect-size estimate for the eight studies using standardized, norm-referenced measures of reading comprehension was 0.35 (Scammacca et al., 2007). The findings suggest that researchers as well as teachers can influence reading outcomes of older students with reading difficulties. Students in middle and high school may benefit from intervention, especially interventions provided to middle-grade students were associated with overall higher effect sizes, and that students with learning disabilities typically benefit more from intervention with larger effects than students not identified with a learning disability.

Still, few would argue against providing comprehension strategy instruction to struggling readers at points throughout the school day, including content-area classes and in specialized reading interventions. The recent flurry of national policy reports addressing the adolescent literacy crisis (Biancarosa & Snow, 2004; Kamil, 2003; National Governor's Association, 2005) consistently highlights the importance of this

type of instruction. Comprehension-monitoring strategies enable students to track understanding as they read and to implement repair strategies when understanding breaks down. Students with reading difficulties may benefit from direct instruction on such strategies, including noting confusing or difficult words and concepts, creating images, and pausing after each paragraph to summarize (Roberts et al., 2008). Common fix-up strategies include rereading, restating, and using context and decoding skills to identify unknown words or new ideas (Klingner, Vaughn, & Boardman, 2007). Students can also be taught to ask questions before and during reading to guide and focus reading; to confirm, disconfirm; or extend predictions; and to grapple with the meaning of text by actively engaging comprehension strategies (Vaughn et al., 2010). Reading for meaning requires synthesizing large amounts of information into its most important elements. Struggling students can be taught to summarize as they read to create, revise, and refine their understanding of a passage (Gajria & Salvia, 1992). Teachers can assist by modeling important organizational steps, by providing structured practice opportunities with ongoing feedback, and by presenting examples and nonexamples of concise, complete summaries.

Scaffolded instruction that starts with short passages that address relatively unsophisticated content and works up to lengthier and difficult selections may be an effective approach (Klingner & Vaughn, 1996). Students can also be taught to use question-generating strategies as they read and to effectively answer teacher-generated questions (Edmonds et al., 2009). Although teacher questioning should be used primarily for assessment purposes, it can be effective instructionally if used to model appropriate self-questioning or to provide direct instruction on locating important information (Edmonds et al., 2009). Strategies can be taught for matching different question types to

various information needs and texts. For example, a question about factual detail in a passage is likely to be found verbatim within the text, while questions about the main idea may not.

Multicomponent approaches combine several strategies into an organizational plan for reading (Edmonds et al., 2009). Teachers can provide instruction over time in previewing, mental imagery, main idea, questioning, and summarizing, for example. Strategies can be taught in combination or individually if students are provided with adequate support and practice opportunities. Cooperative learning and group discussion can facilitate acquisition of specific strategies and integration of multiple strategies (Pressley, 2000). Although current theories and models of comprehension are useful for guiding instruction, they require further development. A more systematic and integrated approach to reading comprehension research is needed to develop instruction that can be evaluated using rigorous experimental research designs.

Strategy Instruction and Reading Comprehension Performance

The instructional study of Dole, Brown, and Trathen (1996) examined group and individual differences of struggling adolescent readers and exposure to strategy instruction. In the first phase of the study, 67 fifth and sixth graders from a designated at-risk school were randomly assigned to one of the three treatments: strategy instruction, story content instruction, or basal control instruction. For 5 weeks, all students received one of the three treatments embedded within a narrative selection they read each day. Baseline, immediate posttest, and 7-week delayed posttest data were analyzed using ANCOVA. Results indicated that the strategy group performed as well as the story content and basal control groups when students read texts after receiving instruction. However, the strategy group outperformed the story content and basal control groups

when students were asked to read selections on their own (Dole et al., 1996).

In the second phase of the study, two students from the strategy group were selected to examine individual student responses to strategy instruction. Written assessments, classroom observations, and oral interviews were used to identify possible reasons why a lower achieving student used the strategy he/she learned successfully and a higher achieving student did not. It appeared that the lower achieving strategy user was motivated to use the strategy that was perceived as helpful to the student. Additionally, as the student's ability to use the strategy increased, so did his/her daily comprehension of the stories read. On the other hand, the higher achieving student was not motivated to use the strategy. This student perceived the strategy as unhelpful and preferred to use his/her personal strategies instead. This student's daily comprehension actually declined as he/she used the strategy (Dole et al., 1996). Taken together, both phases of the study shed light on the benefits of strategy instruction for at-risk students. Findings from this study also showed how students' motivations can influence their use of the instruction they receive. The study concluded by raising critical questions regarding the role of motivation in strategy instruction and use in the secondary classroom.

Effective Reading Programs for Middle and High School Students

Slavin, Cheung, Groff, and Lake (2008) reviewed research on the achievement outcomes of four types of approaches to improving the reading of middle and high school students: (a) reading curricula, (b) mixed-method models (methods that combine large- and small-group instruction with computer activities), (c) computer-assisted instruction (CAI), and (d) instructional-process programs (methods that focus on providing teachers with extensive professional development to implement specific instructional methods). Criteria for inclusion in the study were use of randomized or matched control groups,

study duration of at least 12 weeks, studies had to involve middle and/or high school students and valid achievement measures that were independent of the experimental treatments. A total of 33 studies met these criteria. Slavin et al. concluded that programs designed to change daily teaching practices have substantially greater research support than those focused on curriculum or technology alone. Positive achievement effects were found for instructional-process programs, especially for those involving cooperative learning, and for mixed-method programs.

READ 180

READ 180 is categorized as a mixed-method model. This program combines large-group, small-group, and computer-assisted, individualized instruction. Unlike supplemental CAI models, mixed-method models are intended to serve as complete literacy interventions. READ 180 is an intervention program for upper-elementary, middle, and high school students who are struggling with reading. The program was originally developed by Hasselbring and Goin (2004) at Vanderbilt University and is currently marketed by Scholastic. Stage B of the program, which is designed for students in Grade 6 and above who are reading at grade levels from 1.5 to 8, provides groups of 15 students with 90 minutes of instruction per day. Each period of instruction begins with a 20-minute shared-reading and skills lesson. Students then rotate among three activities in groups of five: (a) CAI reading, (b) modeled or independent reading, and (c) small-group instruction with the teacher. The READ 180 software includes videos, mostly about science and social studies topics, and students read about the video content and engage in comprehension, vocabulary, fluency, and word-study activities around this content. Audiobooks model comprehension, vocabulary, and self-monitoring strategies used by good readers, and students read leveled paperbacks in many genres. Teachers are given

materials, and they attend workshops to support instruction in reading strategies, comprehension, word study, and vocabulary. A key methodological problem in studies of READ 180 is that many students in READ 180 classes received considerably more instructional time in reading than did their counterparts in control classes. In these cases, the instructional time was confounded with the effects of the program itself (Slavin et al., 2008).

Woods (2007) evaluated READ 180 in an urban school located in the southeastern part of Virginia with two cohorts of reading intervention students. Cohort 1 and Cohort 2 were enrolled in middle school during the 2003-2004 and the 2004-2005 academic years. Data from a third cohort could not be used because the outcome measure was the Scholastic Reading Inventory (SRI), which is used in the READ 180 program. Students in Grades 6-8 who needed additional literacy support ($n = 268$) were assigned to either READ 180 or the current, traditional reading remediation program at the school site. READ 180 and comparison students were well matched on reading pretests and demographic factors. Approximately 57% of students participating in the study received free lunch. Of the participants, 63% were African American and 32% were White. There were 58 students using the READ 180 program during the 2003-2004 school year and 76 using it during the 2004-2005 school year. An equal number of control students participated in the traditional reading remediation program. Students in the treatment group received 90 minutes of READ 180 every other day for the entire school year and students in the comparison condition received 90 minutes of the traditional reading remediation program every other day for one quarter of the school year. At the end of the 2003-2004 school year, Cohort 1 students who experienced READ 180 gained slightly more on the Degrees of Reading Power test than the control

group ($ES = +0.05$). The use of this test was discontinued, and comparisons between the students who participated in READ 180 during the 2004-2005 school year and those who experienced the traditional reading remediation program were conducted using the STAR Reading assessment program. READ 180 students in Cohort 2 made substantially greater gains on STAR Reading ($ES = +0.81$). When combining the data across the two cohorts, the effect size was $+0.43$ (Woods, 2007).

Caggiano (2007) carried out a year-long study of 120 mostly African-American struggling readers enrolled in Grades 6, 7, and 8 of an urban middle school located in southeastern Virginia. Twenty students from each grade participated in the READ 180 program. These 60 students were matched with 60 nonparticipants by grade level, gender, ethnicity, and the SRI pretest. All classes received 75 minutes of language arts instruction each day. The students in the experimental group received an additional 90 minutes of supplementary instruction every other day using READ 180 (Caggiano, 2007). Students were posttested using both the SRI and the Virginia Standards of Learning test. The SRI was included as an assessment tool in the READ 180 package and only reported the Virginia Standards of Learning test using SRI pretests as covariates. On adjusted posttests, effect sizes were $+0.64$ at Grade 6, -0.29 at Grade 7, and -0.31 at Grade 8, for an overall mean effect size of $+0.01$ (Caggiano, 2007).

SIM

The Strategy Intervention Model, also known as the SIM (Schumaker, Deshler, Alley, & Warner, 1983), is a method in which low-achieving secondary students are taught metacognitive reading strategies, especially paraphrasing, to help them comprehend text. KU-CRL has developed a multifaceted reading intervention approach and has conducted research on these strategies. Studies were executed to determine if

students could learn the strategies and to assess the effects of the strategy on a variety of reading skills such as decoding and reading comprehension.

A study by Woodruff, Schumaker, and Deshler (2002) utilized the SIM Word Identification Strategy intervention with students entering the ninth grade in two northeastern high schools. Students were selected for the study if their decoding score was one or more grades below the ninth-grade level as determined by the Slosson Diagnostic Battery. Students in School A served as the experimental group ($n = 62$) while students in School B served as the comparison group ($n = 62$) (Woodruff et al.). Due to the inability to randomly assign students to instructional condition, students in School A were matched with students in School B according to grade level, age, sex, and race, with 53% of the students from School A and 47% of the students from School B receiving free and reduced lunch. Eleven students from School A had a learning disability. Students in the study had grade-equivalent decoding scores ranging from 2.7-8.5 for School A and 2.7-8.1 for School B. Students in the experimental group were taken out of their English classes and received 1 hour of daily instruction in the use of the Word Identification Strategy in groups of four to six students for 4-8 weeks (Woodruff et al.). Students in the comparison group remained in English class and received their typical reading instruction. Results with and without ANCOVA to control for pretest differences between the groups showed that students from School A achieved significantly higher scores on the decoding subtest of the Slosson Diagnostic Battery than did students from School B. The results cannot necessarily be attributed solely to the intervention due to school-level effects on student performance could not be ruled out during the time of the study (Woodruff et al., 2002).

A small study of SIM by Losh (1991) involved students with learning disabilities

in a junior high school located in the State of Nebraska. Students in a SIM group were individually matched with students in a control group based on California Achievement Test (CAT) reading scores, exceptionality, gender, and grade level. Based on Spring 1990 CAT scores compared to performance of prior scores on the 1989 CAT, SIM students scored higher on the CAT composite although these scores were nonsignificant. There were positive effects for comprehension but not Vocabulary (Losh, 1991).

Mothus (1997) carried out a small matched evaluation of SIM in two middle class, mostly White junior high schools in central British Columbia, Canada. One school had used SIM for 2 years with two cohorts of low-achieving eighth graders. These students were compared to students in the same school and in a neighboring school who received conventional reading remediation and were matched on the Stanford Diagnostic Reading Comprehension Tests (SDRCT) given at the beginning of eighth grade. The students in the SIM treatment group were also compared to matched low achievers in both schools who received neither SIM nor conventional reading remediation but were similarly low achieving. On SDRCT posttests at the end of the 2 years of treatment, SIM students scored significantly higher than both the learning assistance group and the unserved group for a mean effect size of +0.36.

The improved test scores of Muskegon High School students demonstrate that SIM's popularity is not unsubstantiated (Bremer, Clapper, & Deshler, 2002). Muskegon's success story began in the mid-1990s, when assessment tests indicated that half of the 400 ninth graders at the school read below grade level. One third of the 400 students read significantly below grade level, defined as 2 or more years below grade level. Muskegon High School is a traditional public school in a small city on the eastern shore of Lake Michigan. It serves roughly 1,400 students and faces many of the same

challenges that schools across the country face today, for example, high percentage (30%) of students reading below grade level, limited English proficiency, and a high percentage of students (71%) receiving free or reduced lunch. At the same time, students with learning disabilities at the school were showing tremendous gains in reading comprehension, thanks to explicit instruction in SIM reading strategies developed and validated at KU-CRL.

Impressed, the School Improvement Team Reading Committee designed a SIM-based intervention as a way of reaching low-achieving poor readers. Students who had been identified as reading significantly below grade level were designated to receive 50 minutes of intensive instruction every day in the Word Identification Strategy, a strategy used to successfully decode and identify unknown words in reading material. Students were taught in small groups (one teacher to four or five students). They were pulled out of their English classes for this instruction, which lasted 3-8 weeks, depending on how many sessions each student required to reach mastery. After a student mastered the strategy, he or she returned to the English class. The committee has documented substantial success among students who complete the SIM intervention. Reading comprehension gains of three or four grade levels were common (Bremer et al., 2002).

The school then spent a year developing a one semester reading comprehension course, Strategic Reading. The course begins with a full assessment during the first few weeks and then offers instruction in the SIM Vocabulary LINCing Strategy, Visual Imagery Strategy, Self-Questioning Strategy, and Paraphrasing Strategy. Students read high-interest texts and two novels in the class. Teachers have revised and tweaked the class at the end of each school year, assessing what went well and what needed to be changed. Students who were taught the Vocabulary LINCing Routine raised their social

studies vocabulary test scores from 53% to 77% correct. Average student scores increased from 84% to 92% (Bremer et al., 2002). Muskegon teachers have carefully constructed their literacy program to meet pressing needs, including a rising number of English Language Learners. On average, the unit test scores of both low-achieving adolescents (including those with learning disabilities) and high-achieving adolescents improved.

In 2002, the physical science teachers at Muskegon High School introduced SIM into their classrooms to help teach their material in a more effective and engaging way, utilizing the same strategies in the Strategic Reading course. This implementation began a shift towards a comprehensive literacy program designed to reach all students. The program is based in part on KU-CRL's CLC, a framework that describes five levels of literacy support that can be developed in middle or high school. The CLC emphasizes connections among the processes of reading, writing, listening, speaking, viewing, and presenting (KU-CRL, 2009b). Muskegon English teachers addressed Level 2 (Embedded Strategy Instruction) of the CLC by modeling effective strategies of SIM for students to improve their reading comprehension. After 4 years of learning these strategies from 2002-2006, student reading comprehension improved to 34 more students who passed the state's minimal reading competency exam in 12th grade than had passed in 7th grade before students were exposed to SIM strategies (Bremer et al., 2002).

Muskegon teachers also implemented Level 3 (Intensive Strategy Instruction) of the CLC in classrooms in which students needed more intensive literacy instruction. After these students learned SIM's word identification techniques, their scores on advanced phonics and decoding exams increased by more than 20 raw points and three grade levels, whereas comparison group students' scores had increased by fewer than five

raw points and less than half a grade level (Bremer et al., 2002). The scores of African-American males and students with learning disabilities in the SIM group increased by almost four grade levels, showing marked progress in Muskegon's efforts to close their achievement gap in performance of minorities and students with exceptionalities (Bremer et al., 2002). In summary, the KU-CRL has developed several remedial reading strategies, collectively referred to as the SIM, designed to assist students with learning disabilities and other low-achieving students to read more effectively.

Xtreme Reading

Xtreme Reading is a strategy instruction program that is a Level 3 (Intensive Strategy Instruction) part of the CLC. Xtreme Reading is an approach that emphasizes the teaching of cognitive and metacognitive reading strategies such as summarization, use of graphic organizers, and previewing (KU-CRL, 2009b). Xtreme Reading is a supplemental literacy program designed to help struggling adolescent readers improve their reading skills. Xtreme Reading was developed by the KU-CRL and emphasizes teaching of cognitive and metacognitive skills, vocabulary, and word identification. Teachers and students follow a regular routine of modeling, practice, paired practice, independent practice, differentiated instruction, and integration and generalization (Slavin et al., 2008).

As part of a recent initiative of the U.S. Institute of Education Sciences, Kemple et al. (2008) evaluated this approach to reading instruction. Kemple et al. randomly assigned 34 high schools in 10 districts across the United States to use Xtreme Reading or another strategy instruction program, Reading Apprenticeship. Students entering ninth grade reading two to four grades below level were randomly assigned to treatment or control conditions. Overall, the students were 45% African American, 32% Hispanic,

18% White, and 5% other. Students were pre and posttested on the Group Reading Assessment and Diagnostic Evaluation. Controlling for pretests, the Xtreme Reading outcomes for mean effect size of comprehension, statistical significance, and vocabulary resulted in a mean effect size of +0.05 (Kemple et al., 2008).

It is evident that there is a gap between literacy and reading research theory and the various approaches implemented in secondary schools for struggling adolescent readers. Even from a national level, there is a request for responsible research to identify the research methods and strategies appropriate for assisting struggling adolescent readers as well as their teachers and administrators (Biancarosa & Snow, 2004). Based on the need identified through a synthesis of literature reviewed for this research, this study focused on implementing reading interventions that used the SIM metacognitive reading strategies in the Xtreme Reading program to accelerate reading achievement at the secondary level. The research regarding struggling adolescent literacy suggests that a research-based continuum of approaches, facilitated by a trained professional teacher in a supportive school environment, will result in improved adolescent literacy (National Reading Panel, 2000; Sturtevant & Linek, 2003). It is essential to accelerate the reading skills of struggling adolescent readers to avoid course failure, retention, and potentially dropping out of school.

Several themes emerged from the literature review. First, it is clear that reading achievement skills for struggling adolescent readers can be improved with research-based strategies. Second, specific strategy instruction has shown merit in increasing student reading comprehension performance. Third, reading interventions, when implemented correctly, can have an impact on student attitude, achievement, and confidence to progress through middle and high school and continue on to college or the workforce.

Summary

This chapter presents a review of current research on adolescent literacy with a focus on reading at the secondary school level. The review of literature suggests the existence of a major gap between adolescent reading theories and many secondary school classroom practices. Although the issues surrounding older struggling adolescent readers continue to widen due to increased accountability demands, as Moats (2001) suggested, “plenty can be done to face the challenge if we are committed to applying the best practices supported by reading research” (p. 3). Based on higher expectations from political, economic, and social fronts, this research study investigated the effectiveness of the Xtreme Reading program in relation to accelerating the reading achievement of struggling adolescent readers. With mounting accountability demands, it is imperative to find innovative approaches in the educational research arena to close the reading achievement gap that is currently hindering the academic progress of many secondary school students. In the following chapter, the researcher introduces the study design and methodology of this program evaluation of Xtreme Reading.

Chapter 3: Methodology

Introduction

Administrators and teachers in secondary schools throughout the United States have come to realize the impact that insufficient literacy skills have on the ability of adolescents to successfully access the general curriculum. This attention is largely the result of federal and state initiatives to set standards and then measure student achievement through standards-based tests (Lenz et al., 2005). Accountability is now the main focus of schools, and both principals and teachers are being held directly responsible for the role they provide in meeting the academic needs of all students. For secondary-level students in Grades 7-12, the social and economic consequences of inadequate literacy skills can be lifelong: the failure to obtain a high school diploma, difficulty to enter higher education, unemployment, and struggle to manage personal and family life (Peterson, Caverly, Nicholson, O'Neal, & Cusenbary, 2000).

This is a new undertaking for secondary schools that typically have focused on content acquisition rather than focusing on developing the foundational skills and strategies required to access content. Little effort has been made to help faculty develop school-wide approaches to address literacy deficiencies at the secondary level (Lenz et al., 2005). For the past 15 years, research from KU-CRL led to the development of an effective school-wide literacy instruction model in secondary schools. The product of this work has been the development of a framework, the CLC, as a means for thinking about ways to effectively leverage the talents of secondary school faculty to improve academic outcomes for all adolescents. The CLC has been used to guide the use of interventions in the SIM developed by KU-CRL over the past 27 years (Lenz et al., 2005). The CLC is a tool for enabling all secondary teachers and administrators to

participate in a school-wide literacy initiative that has the potential to improve literacy outcomes for those who are at risk of academic failure.

This chapter includes information that articulates the research study design, participant selection, instrumentation, data collection procedures, and data analysis that were used to answer the research questions. As indicated earlier, the development of the research questions was guided by the Stufflebeam (2003) CIPP model to investigate the effect of the remedial reading program, Xtreme Reading, and its ability to increase reading comprehension performance of sixth-, seventh-, and eighth-grade students reading 1 year or more below grade level. Following a review and synthesis of studies in the literature regarding adolescent reading, three questions emerged as the foci of this program evaluation.

1. To what extent will the SIM reading comprehension and vocabulary strategies (Self-Questioning, Paraphrasing, Inference, LINC'S Vocabulary, Word Mapping, and Word Identification) taught in the Xtreme Reading program impact a student's reading comprehension level as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and state-level EOG reading exams?

2. To what extent did year-long participation in the Xtreme Reading program increase student reading motivation and student perception of the value of reading, as measured by the AMRP Survey?

3. To what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive a possible change in student reading comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies as measured by the Xtreme Reading Teacher Survey and CERT Survey?

Type of Study

Methodology. Throughout the year-long Xtreme Reading classes, the program evaluation followed a mixed-methods research model. The following assessments were utilized to gather quantitative data in order to answer the research questions of this program review. In regards to testing reading fluency, the TOSCRF was used at the beginning of the semester to pretest the student's abilities, and then quarterly assessments using the AIMSWeb progress monitoring probes the MAZE Curriculum-Based Measure (MAZE-CBM) and the Reading-Curriculum Based Measure (RCBM) were given including mid-year with a final assessment of the TOSCRF to see if the SIM reading strategies assisted with an increase and/or decrease in the student's reading comprehension.

Qualitative data for this study were gathered by a survey of both sixth-, seventh-, and eighth-grade English/language arts teachers and the Xtreme Reading teachers utilizing the Xtreme Reading Teacher Survey and CERT Surveys which assessed and analyzed their perceptions of a change in student reading comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies as related to improved student reading achievement. Cluster sampling was used for collecting these educational data since it deals with an intact group of individuals, English/language arts and Xtreme Reading teachers who had Xtreme Reading students in their classes. Teachers were asked to answer questions based on their experience with the student from the beginning to the end of the 2013-2014 school year. Questions focused on which reading and/or vocabulary strategy from the SIM were perceived by teachers to demonstrate a possible change in the reading comprehension achievement of their Xtreme Reading students as measured by informal, formal, and state-wide assessments.

Research site. The site of data collected in this program review was a public middle school serving Grades 6-8 in a district contiguous with the metro Charlotte, North Carolina area. At the time of this program review, the school had an enrollment of 919 students. The ethnic composition of the school was approximately 46% White, 22% African American, 24% Latino, 7% Multi-Racial, and 1% Asian or Pacific Islander. A substantial percentage (72%) of the students in the school were economically disadvantaged as defined by the percentage of students eligible to participate in the federal free and reduced-price lunch program, and 14% were receiving special education and/or English as a Second Language (ESL) services. A lack of sufficient strategies for developing these foundational skills required to access content existed at the research site. Teachers did not receive appropriate assistance to assess the literacy needs of each student and incorporate lesson planning and instruction to build upon these areas of weakness in order to close the gaps in reading proficiency. At the school where this program review took place, there was an increasing number of students who did not receive proficiency status on the sixth-, seventh-, or eighth-grade state EOG reading exam. The root of the problem for students not passing these exams was found to be in their inability to read and decode words, comprehend complex text, as well as possess basic study and reinforcement skills necessary to be successful in the middle school setting and then to high school.

Due to the implementation of the Xtreme Reading Class, there was a form of specifically tiered interventions and content enhancement routines used to address the needs of students who lack proficiency in the area of reading. The Xtreme Reading program was based on a reading instruction core with strategies for reading comprehension, fluency, and vocabulary from the University of Kansas (U.S Department

of Education, 2006). Beginning with the 2012-2013 school year, the middle school began the Xtreme Reading program in order to assist over a third of the student population who were performing below grade level in reading performance. This remedial class continued to be offered as a means to daily intervene literacy deficiencies of sixth-, seventh-, and eighth-grade students as well as to create opportunities for academic success, not only in the middle school setting but also throughout their academic career in high school and beyond.

Researcher's role. The researcher was the principal at the middle school where this study took place. The researcher had first-hand access to the program and had all relevant data available at any time. The writer was also able to play a pivotal role in the evaluation of the program by observing and evaluating not only the teacher instruction in the Xtreme Reading classroom but also the evaluative data presented throughout year 1 (2012-2013) and year 2 (2013-2014) of implementation of the Xtreme Reading program at the school site.

Selection of participants. A group of sixth-, seventh-, and eighth-grade reading intervention students, Xtreme Reading teachers, and sixth-, seventh-, and eighth-grade English/language arts teachers during the 2013-2014 school year were the targeted group for participation in this study. In order to create the Xtreme Reading remedial classes, general characteristics of the learner were taken into account such as gender, age, ethnicity, prerequisite skills for instruction, and preferred learning styles of the students in the class. Analysis of academic records revealed each student's background and past performance in classes with a strong focus placed on the student's performance in English/language arts classes; previous state reading EOG test scores of students who scored a level 1 or 2 on the sixth-, seventh-, or eighth-grade reading EOG test; and all

retained sixth-, seventh-, and eighth-grade students from the previous school year who did not pass the sixth-, seventh-, or eighth-grade reading EOG test, additional reading assessment data, and teacher recommendations.

This group of students was considered a part of the school's at-risk population due to their lack of reaching grade-level EOG proficiency status on the state EOG test in sixth-, seventh-, or eighth-grade reading and/or Common Core/North Carolina Essential Standards course of study requirements. All sixth-, seventh-, and eighth-grade students at the school were screened within the first 2 weeks of school during their English/language arts classes with the Test of Silent Contextual Reading Fluency (TOSCRF). The TOSCRF served as an additional assessment and data point used to create a school-wide reading profile in order to categorize students who were not reading at grade level, to what degree were they below grade level, to classify which students who had exceptionalities, and then finalized a student placement list for six sections of Xtreme Reading classes for the 2013-2014 school year. The treatment group was comprised of approximately 60-80 middle school students, and the students in the treatment group participated in Xtreme Reading every day for 45 minutes for the entire school year, in addition to a daily 60-minute English/language arts class.

Xtreme Reading program. Students enrolled in the Xtreme Reading program received this treatment according to the Xtreme Reading Instructional Model, which utilized a 45-minute block of instructional time, as illustrated in Figure 2, on a traditional six periods, 5 days a week schedule. The form of instruction varied depending on the needs of students and included teacher-led whole-group discussions and guided-practice activities as well as lessons in which students worked independently at stations set up throughout the classroom. Station activities included the following: the teacher met with

one student in order to measure his or her progress, a pair of students practiced a targeted reading strategy aloud, students worked individually at computers using the interactive programs that supported reading instruction, pairs of students engaged in fluency activities, and students designed memory aids and study cards for vocabulary words and then tested each other over the words (U.S. Department of Education, 2006).

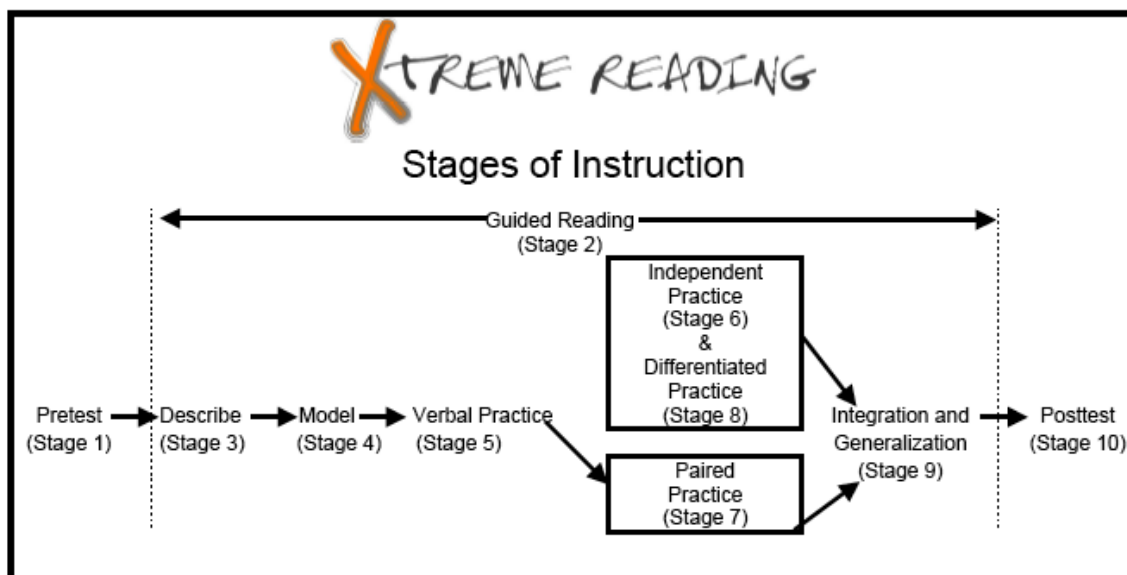


Figure 2. Xtreme Reading Program's Stages of Instruction (Deshler, 2008).

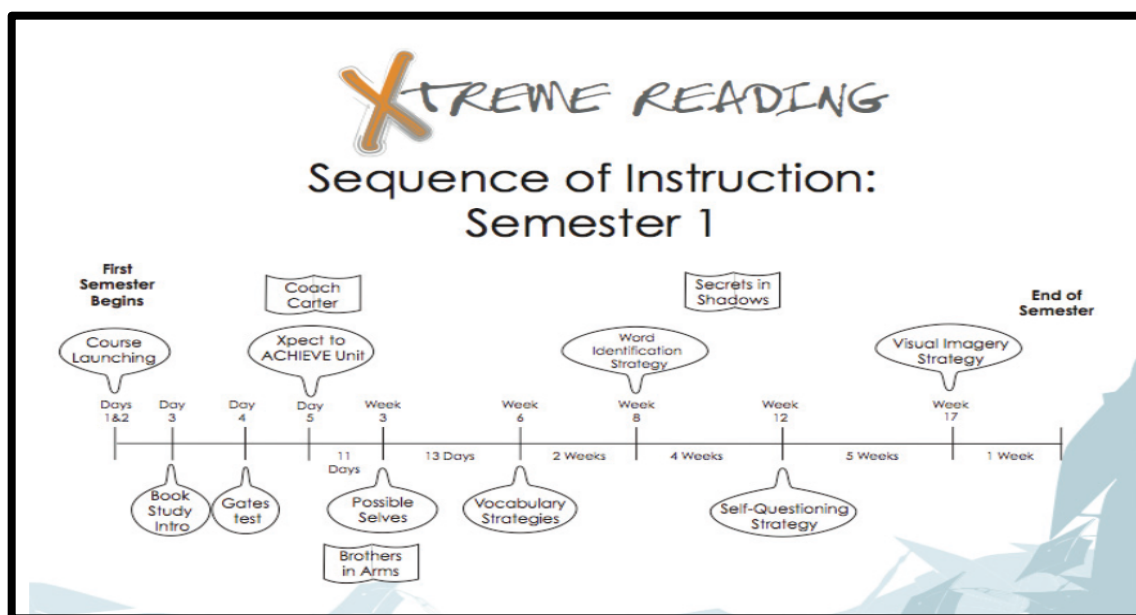


Figure 3. Xtreme Reading Program's Sequence of Instruction: Semester 1 (Deshler, 2008).

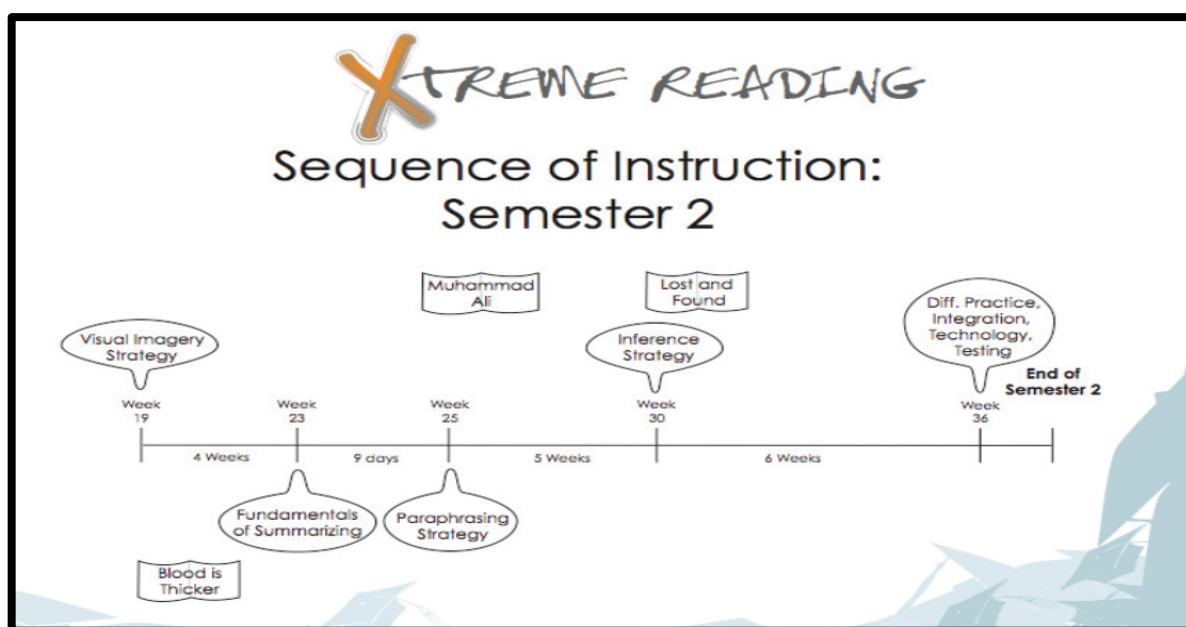


Figure 4. Xtreme Reading Program's Sequence of Instruction: Semester 2 (Deshler, 2008).

Instrumentation

TOSCRF. The TOSCRF (Hammill et al., 2006) is a theoretically sound, research-based method of assessing the silent reading ability of school-aged students in a quick, accurate, and cost-efficient way. The test was normed on 1,898 students ranging from 7 to 18 years of age. The test consists of four equivalent forms (A, B, C, and D) and provides raw scores, standard scores, percentiles, and age and grade equivalents. It can be administered individually or in a group in approximately 10 minutes. The TOSCRF normative sample was stratified with regard to geographic area, gender, race and ethnicity, family income, educational attainment of parents, exceptionality status, and age (Rogers, 2008). Evidence of reliability is provided using alternate forms, test-retest, and inter-rater scoring. The reliability coefficients for alternate forms (immediate administration) ranged from .82 to .89 by age level and from .76 to .96 for selected subgroups. The reliability coefficients for test-retest with a 2-week interval ranged from .82 to .95 (Geisinger, Spies, Carlson, & Plake, 2007). For evidence of criterion-related validity, the TOSCRF was compared to archival scores on the Woodcock-Johnson III, the Gray Oral Reading Test (GORT-4), the Stanford Achievement Test Series 9, and the Test of Silent Word Reading Fluency (TOSWRF). Average uncorrected correlations across all forms of the TOSCRF ranged from .48 with the GORT-4 to .76 with the TOSWRF (Geisinger et al., 2007).

AIMSWeb assessments. AIMSWeb is a comprehensive, research-based formative assessment and basic skills improvement system. It provides teachers, administrators, and parents with observable data in order to assess basic skill needs and/or progress. The AIMSWeb formative assessment model shows progress (or lack of progress) as it occurs by identifying at-risk students as accurately as possible and informs

teachers of those students who are learning and those who are not progressing satisfactorily. AIMSWeb assessments are standardized tests researched with respect to psychometric properties of reliability and validity and are linked to problem-solving decision making for promoting positive achievement with general education students and at-risk students or those in remedial programs such as Title I and special education (Shinn & Shinn, 2003).

AIMSWeb curriculum-based measures. Developed during the past 2 decades, curriculum-based measurement (CBM) represents a class of assessment methods known as *general outcome measurement*. The purpose of general outcome measurement is to provide teachers with reliable, valid, and efficient procedures to obtain ongoing performance data for evaluating instructional programs (Fuchs & Fuchs, 1999). Fuchs and Deno (1991) incorporated three key assessment features that distinguish CBM from most forms of classroom-based assessment. First, measurement is standardized; second, the focus of the measurement is long-term; and third, the testing methods and content reflect the performance desired from the student at the end of the year (Fuchs & Deno, 1991).

One of CBM's advantages is that it demonstrates traditional reliability and validity. Research investigating the technical features of alternative reading measures supports the psychometric tenability of CBM's reading aloud from text, scored as number of words read correctly per minute, and selecting items to restore blanks to passages, referred to as the MAZE task (Fuchs & Fuchs, 1999). For both measures, studies demonstrate strong criterion validity with respect to commercial reading tests (Fuchs & Fuchs, 1992; Marston, 1989). CBM achieves traditional reliability and validity by breaking with conventional classroom-based assessment methods by sampling behavior

more broadly so that each weekly assessment relies on an integrated application of a range of skills and strategies. By sampling broadly and relying on standardized administration and scoring, CBM produces a broad dispersion of scores across individuals of the same age, with rank orderings that correspond to important external criteria (Deno, Mirkin, & Chiang, 1982). Additional examples of traditional reliability and validity of CBM include classroom-based observational methods incorporating repeated performance sampling, fixed time recording, graphic displays of time-series data, and qualitative descriptions of performance (Fuchs & Fuchs, 1999).

Reading Curriculum-Based Measure. Reading Curriculum-Based Measurement (R-CBM) is a brief, individually administered, standardized test of oral reading for Grades 1-12. R-CBM assessments consist of three standardized reading passages at a grade-appropriate difficulty level. Students read aloud from each passage for 1 minute, and the median number of words read correctly across the three passages serves as the overall score/grade-level reading ability for that student (Silbergliitt & Hintze, 2007). R-CBM is used as a universal screening assessment of all students at the beginning, middle, and end of the school year. The probes are also used for frequent progress monitoring of students participating in remedial reading classes and/or interventions. R-CBM has substantial empirical support for its validity as an overall indicator of general reading competence, including comprehension (Fuchs, Fuchs, Hosp, & Jenkins, 2001; Fuchs, Fuchs, & Maxwell, 1988). The original use of R-CBM was directed at progress monitoring of students in special education (Deno et al., 1982) and in problem solving (Shinn & Shinn, 2002).

Given the combination of efficiency, low cost, and validity with respect to important educational outcomes, R-CBM is a worthwhile indicator for judging the

effectiveness of overall reading instruction and intervention support (Graney & Shinn, 2005). All CBM procedures, including R-CBM, were developed specifically for use in formative evaluation, a process for evaluating the effectiveness of instructional programs for individual students (Deno et al., 1982). After more than 3 decades of research, R-CBM continues to hold up against established criteria for effective measurement systems used in formative evaluation. The criteria include (a) meeting traditional psychometric standards for test reliability and validity; (b) having the capacity to model growth over time; (c) demonstrating sensitivity to instructional modifications over a relatively short period of time; (d) independence of any specific instructional program or technique; (e) providing specific information for instructional planning; and (f) being simple, cost-effective, and efficient enough to be implemented without significantly distracting teaching efforts (Fuchs & Fuchs, 1999). R-CBM was considered to meet the scientific standards for frequent progress monitoring by the U.S. Department of Education, National Center on Student Progress Monitoring (National Center on Student Progress Monitoring, 2005).

MAZE curriculum-based measure. MAZE uses reading probes in which every seventh word is removed and replaced with a choice of three words, one of which is the correct word and two are distracters. Administered in a group setting, students have 3 minutes to read the passage and circle the correct word for each blank space. Scores on a MAZE task represent the total number of words circled correctly in the given time period (AIMSweb, 2008). Ardoin et al. (2004) investigated the correlation between oral reading fluency (ORF), MAZE, a group-administered achievement test, and reading subtests of the Woodcock-Johnson Tests of Achievement, Third Edition (WJ-III). Seventy-seven third-grade students were given all four assessments. Correlations, *t* tests to measure

differences in correlations, and multiple regression analyses were conducted. All correlations between ORF, MAZE, and the WJ-III subtests were statistically significant. ORF was more closely related to the WJ-III than the MAZE and the addition of the MAZE did not significantly increase the predictive power of ORF. The authors concluded that although both curriculum-based measures correlated significantly with the WJ-III, ORF was a better predictor of overall reading achievement and reading comprehension (Ardoin et al., 2004). Wiley and Deno (2005) compared the predictive value of ORF and MAZE tasks by administering both to a group of third- and fifth-grade students and correlating their scores with a state standards test. Moderate correlations were found between both CBM and the state assessment. Additionally, combining ORF and MAZE increased the predictive power more than utilizing one CBM measure over the other.

Deno et al. (2009) investigated the use of a MAZE task as a universal screening measure by examining the relationship between performance on the MAZE and a standardized test of reading. Correlations between the two reading measures ranged from .61 to .77. School-wide data indicated that MAZE scores increased steadily with each grade level over the course of 2 school years, providing support for its use as a progress monitoring measure. The authors concluded that given its evidence of validity and utility in identifying students at risk and its group administration format, MAZE procedures are efficient, effective, and provide clear data as a universal screening measure within a school-wide RTI model (Deno et al., 2009).

Xtreme Reading Teacher Survey and CERT survey. This survey was adapted from the Striving Readers Grant Model of Change conducted by the Education Alliance at Brown University in 2007. The Xtreme Reading Teacher Survey contains questions

about the teacher's background, satisfaction with Xtreme Reading materials and professional development, implementation of Xtreme Reading, as well as teacher perceptions of the program's impact on students. This reading survey compares Xtreme teacher perceptions at the end of the second semester of Xtreme Reading instruction.

The CERT survey contains questions about the CERT and SIM strategies that teachers may be implementing at the school site (Ayers & Miller, 2009). The survey contains questions about the teacher's background, satisfaction with CERT and SIM materials and professional development, implementation of these strategies, as well as teachers' perceptions of the strategies' impact on students. The majority of the survey questions use a 5-point scale: strongly agree, agree, undecided, disagree, strongly disagree. This survey compares English/language arts teacher perceptions at the end of the second semester of Xtreme Reading instruction.

Part 1 of the survey asks teachers about their backgrounds, their experiences with professional development activities, their school environments, and their beliefs about literacy instruction. Part 2 of the survey asks teachers about their impressions of the training they attended. Part 3 of the survey questions teachers' perceptions of aspects of the Xtreme Reading intervention as well as SIM strategies, the ease of implementing the program, and of students' responses to and challenges with this program. The Striving Readers Grant Model of Change Xtreme Reading and CERT teacher survey was administered to two cohorts (spring 2006 for Cohort 1 and spring 2007 for Cohort 2). The questions in the survey assess whether student participation in literacy support activities during the school year (Xtreme Reading and SIM strategies) and measure teacher attitudes and behaviors related to these reading interventions and student reading performance.

The Striving Readers Grant study team used a three-step process for defining and constructing the measures for analyzing the survey: (a) identify groups of conceptually linked survey items; (b) conduct empirical tests of the correlation among the conceptually linked survey items; and (c) construct multi-item outcome variables that combine the most highly correlated items (Ayers & Miller, 2009). A copy of the survey is included in Appendix A. Combining responses to these three areas, a measure was constructed for student duration and frequency in the reading intervention program. The calculations are based on the assumption that there are 36 weeks of Xtreme Reading classes per school year and 5 days of classes per week. The teacher survey includes 18 items that measure the frequency of teachers' perceptions on how students read various texts. The Striving Readers Grant study team focused on questions about written texts that were likely to include extended passages. The team also focused on groups of items for which teacher responses were highly correlated (that is, groups of items that were correlated with Cronbach's $\alpha > .70$). The items used to construct a measure of teacher perception of increase in classroom reading frequency and comprehension were correlated with Cronbach's $\alpha = .83$ for Cohort 1 and Cronbach's $\alpha = .71$ for Cohort 2 (Ayers & Miller, 2009; Somers et al., 2010).

AMRP Survey. This survey is adapted from the AMRP (Gambrell, Palmer, Codling, & Mazzoni, 1996) with permission by researchers working with adolescents (Pitcher et al., 2007) and is located in Appendix B. The questions are modified for adolescents as they were originally designed for younger children. The survey asks students 20 questions with 10 questions relating to assessing self-concept as a reader and 10 questions relating to their attitude toward the value of reading. This reading survey compares student perceptions after one semester of Xtreme Reading instruction and then

again at the end of the second semester of Xtreme Reading instruction.

Item selection for the AMRP Survey was based on a review of research and theories related to motivation and included an analysis of existing instruments designed to assess motivation and attitude toward reading. A number of instruments were examined in order to gather ideas for the development of an initial pool of AMRP items (Gambrell et al., 1996). An assessment instrument is useful only if it is valid and reliable. Validity refers to the instrument's ability to measure the trait it purports to measure, while reliability refers to the ability of the instrument to consistently measure that trait. To gain information about the validity and reliability of the AMRP, specifically the Reading Survey, it was field-tested.

The criteria for item selection and development for the survey instrument included (a) applicability to Grades 1-6, (b) applicability to all teaching approaches and materials, (c) suitability for group administration, and (d) accuracy in reflecting the appropriate dimension of motivation (i.e., self-concept or value). All survey items employ a Likert-type response scale. A 4-point scale was used to avoid neutral, central response patterns. In order to avoid repetition in the presentation of the response alternatives and to control for the threat of *response set* (i.e., children selecting the same responses for each item), some response alternatives proceed from most positive to least positive while others are ordered in the opposite way.

An initial pool of survey items was developed based on the criteria described above. Three experienced classroom teachers, who were also graduate students in reading, critiqued over 100 items for their construct validity in assessing student self-concept or value of reading. The items that received 100% agreement by the teachers were then compiled. The agreed upon items were then submitted to four classroom

teachers who were asked to sort the items into three categories of function: (a) measures self-concept, (b) measures values of reading, and (c) not sure or questionable. Only those items that received 100% trait agreement were selected for inclusion on the Reading Survey instrument. The final version of the Reading Survey instrument was field tested in the late fall with 330 third- and fifth-grade students in 27 classrooms in four schools from two school districts in an eastern state. To assess the internal consistency of the Reading Survey, Cronbach's (1951) alpha statistic was calculated, revealing a moderately high reliability for both third grade (.70) and fifth grade (.76).

Data Collection

To answer each of the research questions, archival, quantitative, and qualitative data were gathered from various sources. There was a small sample size for the data collection portion of this mixed-methods study. Currently, there are approximately 80 students registered who qualify for the Xtreme Reading classes. This number fluctuates throughout the school year due to newly enrolled students requiring this course as well as students who withdraw from the course. Through the quantitative data used, it is imperative to focus on the reliability of the instruments used to gather this information.

Archival, quantitative, and qualitative data sources. During the context evaluation, data are collected from the TOSCRF measures as a pre and postassessment of the student's reading comprehension given before and after completion of the Xtreme Reading program. This establishes baseline data for the student's current reading fluency level prior to exposure to the Xtreme Reading program and then after 36 weeks of the remedial program. To answer the input questions, the researcher collects archival data from the school improvement plan, professional development minutes from the CLC faculty training, and the Xtreme Reading curriculum. Reviewing these documents

provides the operational decisions and data to determine the program features. It also reveals program decision information as to what resources are available, appropriate strategies to be considered, and other plans under consideration. Data from these documents present key elements about the Xtreme Reading program's structure and class activities, obtaining resource support for the program, procedural design, recruiting of staff, and training of staff. Xtreme Reading program characteristics indicate what was used to define the curriculum, instructional materials, methods, and practices. Archival data from these sources also reveal the stakeholders' needs, goals, and any additional resources for the Xtreme Reading program.

Data obtained from the 2013-2014 school year determine the impact of the program as a part of the product evaluation. AIMSWeb progress monitoring probes, specifically the R-CBM and MAZE CBM (MAZE), can be given quarterly throughout the fall and spring semesters in order to maintain a reliable as well as valid instrument. Since the R-CBM and MAZE measures are reading comprehension assessments and can be administered in 1 day and allow for readministration throughout the school year as stated above, correlations can be measured between the students' scores after the introduction of the SIM vocabulary and reading strategies.

The sixth-, seventh-, and eighth-grade state reading EOG exam is a test only given within the last 10 days of the school year as a final summative exam. This can cause a threat to the internal validity of this measurement. There are threats to the internal validity of this instrument by two means: testing and measuring of the instruments and/or instrumentation. The state sixth- through eighth-grade reading EOG exam is only given at one time at the end of the school year with no possibility of retesting if the student does not score a level 3, 4, or 5 proficiency score. This can cause

the case for the state reading EOG exam to not be a valid instrument based on the one-time only administration. Scores from this exam can be skewed either in a positive or negative fashion based on student familiarity with questions as well as format for answers.

Teacher survey procedures. A survey gathers data based on the following research question:

To what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive a possible change in student reading comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies

Data were collected from the two teachers who only teach the Xtreme Reading program and from 11 English/language arts and Resource ELA teachers who work with the Xtreme Reading students who apply the SIM reading and vocabulary strategies in the classroom at the focus school. The researcher contacted the teachers in person and via e-mail prior to the survey distribution. The teacher survey was sent via email as well as a paper copy placed in the teachers' school mailboxes including a cover letter and a participation letter. The survey yields numerical data that were analyzed with appropriate statistical formulas. The cost of this survey was minimal due to the small size of participants and the use of Google Docs for data analysis. Questions were edited as to eliminate any items that were too vague, misleading, or biased. Those surveyed were also notified that the survey was anonymous as well as confidential. Space was provided on the survey for extended responses as well as check questions to cover previous responses to ensure reliability and validity. Questions were no more than 25 and used a Likert Scale (1-5), which asked the teacher taking the survey to rank his or her responses

from low to high. Last but not least, there was an area of the survey for the teacher to give more detailed information with regard to his/her position, gender, and years of teaching service to use in the evaluation and analysis of data.

Student survey procedures. Data were collected from students who were enrolled in the Xtreme Reading program at the focus school. The students were contacted by the researcher in person prior to the survey distribution. The student survey was given as a paper copy and was delivered to the students via the researcher following precisely the directions for the survey administration. The survey yielded qualitative data that were analyzed with appropriate statistical formulas. The cost of this survey was minimal due to the small size of participants and the use of Google Docs for data analysis. Those surveyed were also notified that the survey was anonymous as well as confidential. Questions were kept to a maximum of 20 and employed the use of a multiple-choice format. There was also an area of the survey for the student to give more detailed information in regards to his or her gender, race, grade level, Xtreme Reading teacher, and English/language arts teacher to use in the evaluation and analysis of data.

Data Analysis

An in-depth analysis of all quantitative and qualitative data was performed on the following pieces of data: TOSCRF measure scores; AIMSWeb progress monitoring probes, R-CBM and MAZE CBM; the North Carolina sixth-, seventh-, and eighth-grade reading EOG exam, Xtreme Reading and CERT teacher perception surveys, and the AMRP Survey. The students completed the fall TOSCRF within the first 10 days of school. The results of the TOSCRF data were analyzed with the students TOSCRF spring score at the end of the school year. This data provided evidence of reading comprehension loss or gain.

A matched-pair t test was used in the evaluation of data. The matched-pair t test came from an analysis of the students' fall TOSCRF scores to spring TOSCRF scores, which was before and then after the Xtreme Reading program. This allowed for an analysis of their current reading grade level before entering the reading program and then again at the end of the program.

A matched-pair t test analyzed the results from the student reading surveys. The students completed the reading survey two times, at mid-semester after 18 weeks of Xtreme Reading instruction and again after 36 weeks of instruction at the end of participating in the program. The matched-pair t test determined the amount of growth or loss in the results from the survey. A survey score was given based on the entire survey. Additionally, scores were given based on two subsections of the survey. These included student self-concept as a reader (motivation) and student value of reading. These results assisted in measuring a change in motivation to read and the value students placed on the importance of reading.

Anticipated Outcomes

It was anticipated that the Xtreme Reading program increased reading comprehension levels for the participants. The existing research indicated that if the teaching of reading is neglected in middle and secondary grades, many excellent readers at the elementary level will fall behind in later-grade academics (Biancarosa & Snow, 2004). Providing a reading intervention program and intensive strategies to students reading below grade level should increase student reading performance. It was also expected that the perceptions students held of themselves as readers would improve due to participation in the Xtreme Reading Program. If a student was receiving additional targeted reading interventions and support in addition to the general grade-level

curriculum, it seemed there was a chance that they enjoyed reading or saw themselves as strong readers. As students increased their knowledge and utilized reading and vocabulary strategies, it was realistic to expect that students would see themselves as readers both in and out of the classroom.

Although this was a small study, it was carried out as a means to have an impact on how middle schools address student deficiencies in literacy. Many school districts do not provide additional curriculum and instructional strategies at the middle school level to address struggling adolescent readers. This study indicates that providing a research-based, viable reading intervention program for adolescents prevents additional academic loss of reading achievement and increases a students' reading level in a minimum of 1 year, which can give other middle schools and districts an alternative curriculum to implement for struggling readers. This affords opportunities for educators to utilize the Xtreme Reading program as a means to improve the academic performance of their students over time by reducing the number of students entering high school reading below grade level.

Limitations and Delimitations

There were several limitations of this study. First, this study was restricted only to students in the Xtreme Reading classroom. The scope of this study only included these targeted students at one middle school and no other middle school in the school district where the study took place. With this small number of participants, it was difficult to make generalizations based on this program evaluation alone, but it did provide research on whether a specific program accomplished the goal of increasing a student's reading level as well as his/her motivation to read. Another limitation was the reliability of student test scores. According to Nitko (1996), students, especially adolescents, often do

not try their best on assessments they perceive as meaningless. This student outlook towards testing could impact the results of the assessments and therefore this study. A final limitation was the reliability of the teacher survey data. The surveys were given to the teachers via an electronic survey and the researcher told teachers that their survey answers would be reported in anonymous means for data analysis. However, the researcher was the principal of the school where the program evaluation took place and there was a chance that this may have affected the survey results from the Xtreme Reading and English/language arts teachers regardless of the prior protocols put in place to secure anonymity of the participants.

Summary

As stated earlier in this paper, the goal of this program evaluation was to gather data based on research questions that prove whether research-based, remedial reading strategies from the University of Kansas can increase student achievement in reading proficiency. The data were collected in both quantitative and qualitative form and demonstrated to the researcher the extent to which the SIM reading and vocabulary strategies of the Xtreme Reading program impact students' abilities to read at their grade levels.

Chapter 4: Data Analysis and Results

Introduction

The 21st century classroom presents new challenges for both teachers and administrators in meeting the literacy expectations set by both the state and nation. A high literacy rate school-wide is crucial to the academic performance of a school. While the press for improving reading education is prevalent, there continues to be a lack of attention to reading comprehension in the secondary education setting. Therefore, it is imperative for middle schools to implement effective, remedial reading programs to assist students in overcoming obstacles in their way of achieving success in literacy.

This chapter presents analyses of the research data that articulate the research study design, participant selection, instrumentation, data collection procedures, and data analysis that were used to answer the research questions. As indicated earlier, the development of the research questions was guided by the Stufflebeam (2003) CIPP model to investigate the effect of the remedial reading program, Xtreme Reading, and its ability to increase reading comprehension performance of sixth-, seventh-, and eighth-grade students reading 1 year or more below grade level. Each research question and related subquestions are presented and followed by the data related to these questions. The overall results are summarized at the end of the chapter.

The following research questions of this program evaluation sought to determine the following:

1. To what extent will the SIM reading comprehension and vocabulary strategies (Self-Questioning, Paraphrasing, Inference, LINC'S Vocabulary, Word Mapping, and Word Identification) taught in the Xtreme Reading program impact a student's reading comprehension level as measured by in-class, AimsWeb quarterly progress monitoring,

pre and postassessments of the TOSCRF, and state-level EOG reading exams?

2. To what extent did year-long participation in the Xtreme Reading program increase student reading motivation and student perception of the value of reading, as measured by the AMRP Survey?

3. To what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive a possible change in student reading comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies as measured by the Xtreme Reading Teacher Survey and CERT Survey?

Testing the Research Questions

Research Question 1. The first research question examined the yearly mean gains in reading achievement scores for adolescent readers as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and previous year compared to end-of-year state-level EOG reading exams following participation in the Xtreme Reading program. The independent variable in the first research question is the Xtreme Reading program. Students are placed in this program based on screening scores provided by the TOSCRF. Students reading a minimum of two grade levels or more below their peers are placed into the program. Teacher recommendations are also used based on teacher observations of students identified as reluctant and/or poor readers.

The dependent variable is the student's test scores on the AimsWeb quarterly progress monitoring assessments, pre and postassessments of the TOSCRF, and previous year compared to end-of-year state-level EOG reading exam scores. The idea was to determine the amount of yearly mean gains in reading achievement scores for adolescent

readers enrolled in the remedial reading program Xtreme Reading. AimsWeb quarterly assessments are administered in the fall and again in the spring in between each 9-week grading period. The TOSCRF assessment was given at the beginning of the school year prior to enrollment in the Xtreme Reading program and then again during the last 10 days of the school year. The EOG state reading exam score for the 2013-2014 school year was compared to the student's reading exam score from the previous year. The students' pre and postscores from these three assessments were used to help determine if there is a difference in the reading performance of students after enrollment in the year-long Xtreme Reading program.

Research Question 2. The independent variable for the second research question is again the Xtreme Reading program. The dependent variable for the second question is the student's score on the AMRP Survey that determines his or her attitude towards reading. The idea was to determine if providing the Xtreme Reading remedial program developed a stronger sense of being a confident reader in the student. The student's score on the reading survey after 18 weeks of the Xtreme Reading program was compared to the student's score on the same reading survey administered at the end of the Xtreme Reading program for the school year after a full 36 weeks of instruction.

Research Question 3. The third research question examined to what extent Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceived gains in the reading achievement scores of their students in the Xtreme Reading program as measured by the Xtreme Reading Teacher Survey and CERT survey. The independent variable in the third research question is the group of English/language arts and Xtreme Reading teachers at the research site. The dependent variable for the third question is the teacher's score on the CERT survey that determines his or her

attitude towards the Xtreme Reading program and an increase in student reading performance. The teacher score from this survey determined if there was a perception in the gains of reading performance of their students after enrollment in the year-long Xtreme Reading program.

Data Collection Procedures

Students participating in the Xtreme Reading program took the AimsWeb assessments quarterly, once in the fall and once in the spring. The TOSCRF was given twice to students participating in the program, once prior to the beginning of the year-long Xtreme Reading program and a second time at the end of the program. The EOG state reading exam was given one time at the end of the school year to students who participated in the program. Students were also given the AMRP Survey two times: the first time, halfway through the program at 18 weeks; and again after a full school year, 36 weeks, of participation in the program. This instrument is used to gauge student motivation in reading as well as gauging his or her perceived value of reading. The survey provides three different results. The first is an overall score on all 20 questions. It is then grouped into two subcategories. One of the subcategories contains questions that focus specifically on student reading motivation. The other subcategory contains questions that specifically measure perceived value of reading. All of the 20 questions are combined on one survey form in order for students to not know which section they are working on and how the researcher potentially views it.

Data Analysis Procedures and Results

For this study, the investigator considered the pre and postscores on the following assessments: AimsWeb (RCBM and MAZE), TOSCRF, and EOG Reading. This data provided evidence of reading gain or loss after students received the year-long Xtreme

Reading program. The data were compared to determine if there was any difference in the reading gain or loss of students enrolled in the Xtreme Reading program, thus providing evidence of any possible effect of this remedial reading program for students not reading at grade level.

The data analysis employs statistical techniques that are explained and put into use with the help of the Statistical Package for Social Sciences software, known as SPSS. SPSS is a widely used program for statistical analysis in social science. Market researchers, health researchers, survey companies, government, education researchers, marketing organizations, and others use this software. The original SPSS manual (Nie, Bent, & Hull, 1970) has been described as one of “sociology’s most influential books” for allowing ordinary researchers to do their own statistical analysis (Wellman, 1998, p. 71). In addition to statistical analysis, data management (case selection, file reshaping, creating derived data) and data documentation (a metadata dictionary is stored in the datafile) are features of the base software.

A paired samples t test was used in the evaluation. The paired samples t test was conducted on the data from students’ preassessment scores, which was before they entered the Xtreme Reading program to the postassessment scores at the end of the program. This determined if there were differences in reading gain or loss after the students entered the Xtreme Reading program. This allowed for an analysis of their reading performance before entering the program (TOSCRF), while in the program for quarterly, utilizing fall and spring benchmark AimsWeb assessments, and then again at the end of the program (TOSCRF).

A paired samples t test was also used to analyze the results from the AMRP Survey. The students took the survey two times. The first administration of the survey

was halfway through the reading program at 18 weeks and then again at the end of the program for a total of 36 weeks of instruction. The paired samples *t* test determined the amount of growth or loss in the overall student score on the survey. A score is given based on the entire survey. The overall score is based on two subsections of the survey. These include student self-concept as a reader (motivation) and student value of reading. These results measured a change in the student's motivation to read as well the student's value of reading while enrolled in the Xtreme Reading program.

Descriptive Demographics

Eighty students in Grades 6-8 at an urban, southeastern North Carolina middle school were participants in the Xtreme Reading program evaluation over the 2013-2014 school year. Table 2 provides a description of the participants. At the time of the study, the total middle school population in this school ranged from 900 to 920 students. The ethnic composition of the school was approximately 39% White, 27% African American, 32% Latino, and 2% Asian or Pacific Islander. From the total student enrollment, 72% of the students in the school were economically disadvantaged, and 14% were receiving special education services. Throughout the 2013-2014 school year, the enrollment of students in Xtreme Reading classes fluctuated from originally 80 students to 67 students. The change in students was due to withdrawals of transient students from the research site.

Table 2

Description of the 2013-2014 Sample

		Xtreme Reading Students
<i>N</i>		80
Gender	Males	53
	Females	27
Over aged for grade		7
Ethnicity	White	16
	African American	38
	Latino	23
	Asian	1
	Multi-Racial	2
Special Education or 504		3

The first research question examined the yearly mean gains in reading achievement scores for adolescent readers as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and previous year compared to end-of-year state-level EOG reading exams following participation in the Xtreme Reading program. A paired sample *t* test was used since a comparison of the performance of the two groups was being analyzed.

The investigator looked first at the student test scores before the student entered the program. This provided baseline entry data. The first analysis shows grade-level performance in reading as indicated by three assessments: TOSCRF, AimsWeb (RCBM and MAZE) quarterly benchmark, and previous year state EOG reading exam scale scores.

Table 3

Results of Paired Samples t Test for Xtreme Reading (XR) Students and Fall/Spring TOSCRF

Outcome	Fall TOSCRF		Spring TOSCRF		n	95% CI for Mean Difference	r	t	df
	M	SD	M	SD					
	4.88	.98	8.55	2.23	67	-4.15, -3.17	.000*	-15.02	66

Note. * $p < .05$.

Table 3 includes the data from the analysis of the TOSCRF given before the Xtreme Reading program and then after two semesters of the remedial program. A statistically significant difference was found in reading loss/gain as measured by the TOSCRF score between the first and second test administration. The t value was -15.02 and $p = .000$. The group's mean TOSCRF score increased from 4.8 to 8.5, which is a difference of 3 years and 7 months grade-level reading fluency. One can conclude that there is a statistically significant difference (beyond the .001 level) between the mean scores of the TOSCRF fall and spring assessment due to year-long participation in the Xtreme Reading program.

Table 4

Results of Paired Samples t Test for Xtreme Reading (XR) Students and Fall/Spring AimsWeb RCBM Assessments

Outcome	Fall RCBM		Spring RCBM		n	95% CI for Mean Difference	r	t	df
	M	SD	M	SD					
	123.40	24.82	158.89	22.27	67	-41.15, -29.82	.000*	-12.52	66

Note. * $p < .05$.

Table 5

Results of Paired Samples t Test for Xtreme Reading (XR) Students and Fall/Spring AimsWeb MAZE Assessments

Outcome	Fall MAZE		Spring MAZE		n	95% CI for Mean Difference	r	t	df
	M	SD	M	SD					
	16.87	4.50	22.41	4.84	67	-6.62, -4.45	.000*	-10.16	60

Note. * $p < .05$.

Tables 4 and 5 include data from the analysis of the AimsWeb RCBM and MAZE assessments given quarterly in the fall and spring semesters while students were enrolled in the Xtreme Reading program. Sixty-five students were tested for each quarterly assessment. It was found that there was (beyond the .001 level) a significant difference in the average reading loss/gain as measured by the RCBM or MAZE assessments between the two administrations. The t value for the fall and spring RCBM assessments combined was -12.521 with a p (significance) = .000. The t value for the fall and spring MAZE was -10.168 with a p (significance) = .000. The group's mean RCBM score

increased 35.4 points and the group's mean MAZE score increased 10.6 points while enrolled in this remedial program. One can conclude that there is a statistically significant difference (beyond the .001 level) between the mean scores of the AimsWeb RCBM and MAZE fall and spring assessments due to year-long participation in the Xtreme Reading program.

Table 6

Results of Paired Samples t Test for Xtreme Reading (XR) Students and EOG Reading Exam Scale Scores

Outcome	EOG 2013		EOG 2014		n	95% CI for Mean Difference		r	t	df
	M	SD	M	SD						
	422.40	97.08	447.40	7.40	61	-49.79, -2.02	.048*	-2.01		60

Note. * $p < .05$.

Table 6 includes data from the analysis of the state EOG reading exam given yearly to students enrolled in the Xtreme Reading program. Sixty-one students' EOG reading scores were compared from the 2012-2013 to the 2013-2014 school year. The t value for the EOG was -2.017 showing a statistical significance at the $p \leq$ the .05 level, specifically a p (significance) = .048. The group's mean EOG reading score increased 25 points while enrolled in this program. One can conclude that there is a statistically significant difference between the mean scores of the 2012-2013 and 2013-2014 EOG reading exam scores due to year-long participation in the Xtreme Reading program.

The second research question examines to what extent did participation in the Xtreme Reading program increase reading motivation and student perception of the value of reading, as measured by the AMRP Survey. A paired sample t test was used to

analyze the results of the student data. Students took the survey twice, once at the beginning of the program and again at the end of the year-long course. The survey is 20 questions in length and the questions are broken into two groups, one to determine the students' self-concept (motivation) as a reader and the other the value they place on reading. The two subsets of scores combine to give an overall score on the survey. Table 7 shows the results of the data analysis of the paired samples t test comparing the results of the first survey administration to the second administration.

Table 7

Results of Paired Samples t Test for Xtreme Reading (XR) Students and AMRP Survey

Outcome	Fall AMRP		Spring 2014		n	95% CI for Mean Difference		r	t	df
	M	SD	M	SD						
	69.03	10.52	71.17	9.38	66	-4.19, -.086	.041*	-2.01	65	

Note. * $p < .05$.

This table shows the results of the full survey and includes the time from the first survey administration to the second survey administration. Sixty-six students completed the full survey each administration. The data show the group's mean AMRP Survey score increased 2.139 points from the first to second AMRP Survey administration. The t value for the AMRP Survey was -2.017 showing a statistical significance at the $p \leq$ the .05 level, specifically a p (significance)=.041. One can determine that there is a statistical significance between the mean scores of the AMRP Survey scores due to year-long participation in the Xtreme Reading program.

Qualitative Results

The third research question examined to what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive gains in the reading achievement scores of their students in the Xtreme Reading program as measured by the Xtreme Reading Teacher Survey and CERT Survey. The researcher distributed 14 surveys. Nine surveys went to sixth-, seventh-, and eighth-grade English/language arts teachers, three surveys went to English/language arts teachers who teach resource-level classes for students with exceptional needs, and two surveys went to the Xtreme Reading teachers at the research site. Twelve of 14 completed surveys were returned to the researcher. The results for each of the survey questions are presented below. The responses from the surveys are organized by similarities among the group. The teacher's grade level and/or subject area is indicated before each response. Table 8 provides a description of the teacher survey participants. At the time of the study, the school had a total of 68 certified teachers when this survey was conducted at the end of the 2013-2014 school year and 12 of the 68 certified teachers participated in the survey.

Table 8

Description of Xtreme Reading Teachers Survey and CERT Survey

		Teachers Surveyed
<i>N</i>		12
Gender	Males	1
	Females	11
Ethnicity	White	11
	African American	1
	Latino	0
	Asian	0
	Multi-Racial	0
Years of Teaching Experience	0-4 years	2
	5-10 years	2
	11-15 years	3
	16-20 years	2
	21-25 years	1
	26-30 years	2
Years at Current School	0-4 years	6
	5-10 years	1
	11-15 years	2
	16-20 years	2
	21-25 years	1
	26-30 years	0
Probationary Teacher		6
Career Teacher		6

Tables 9-18 show the responses from the teachers when asked the questions of the Xtreme Reading Teacher and CERT Survey.

Table 9

Question 1—Most of the teachers' students enjoy the Xtreme Reading program in general.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	1	1	0	1	0
Seventh-Grade English/language arts	0	2	1	1	0
Eighth-Grade English/language arts	0	2	1	0	0
Xtreme Reading	1	1	0	0	0

Table 10

Question 2—Most of the teachers' students enjoy the Xtreme Reading novels and nonfiction books.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	1	1	0	1	0
Seventh-Grade English/language arts	0	2	1	1	0
Eighth-Grade English/language arts	0	2	1	0	0
Xtreme Reading	1	1	0	0	0

Table 11

Question 3—Most of the teachers' students are improving their overall reading skills because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	2	1	0	0	0
Seventh-Grade English/language arts	1	2	1	0	0
Eighth-Grade English/language arts	2	0	1	0	0
Xtreme Reading	2	0	0	0	0

Table 12

Question 4—Most of the teachers' students are improving their reading comprehension skills because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	1	2	0	0	0
Seventh-Grade English/language arts	2	1	1	0	0
Eighth-Grade English/language arts	2	1	0	0	0
Xtreme Reading	2	0	0	0	0

Table 13

Question 5—Most of the teachers' students are improving their skill in reading aloud because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	1	1	1	0	0
Seventh-Grade English/language arts	1	2	1	0	0
Eighth-Grade English/language arts	2	0	1	0	0
Xtreme Reading	0	2	0	0	0

Table 14

Question 6—Most of the teachers' students are improving their spelling because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	0	0	2	1	0
Seventh-Grade English/language arts	1	1	1	1	0
Eighth-Grade English/language arts	1	1	1	0	0
Xtreme Reading	1	1	0	0	0

Table 15

Question 7—Most of the teachers' students are improving their vocabulary because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	1	2	0	0	0
Seventh-Grade English/language arts	1	3	0	0	0
Eighth-Grade English/language arts	1	1	0	1	0
Xtreme Reading	2	0	0	0	0

Table 16

Question 8—Most of the teachers' students are benefiting from the Xtreme Reading strategies.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	2	1	0	0	0
Seventh-Grade English/language arts	1	3	0	0	0
Eighth-Grade English/language arts	2	1	0	0	0
Xtreme Reading	2	0	0	0	0

Table 17

Question 9—Most of the teachers' students are improving their writing skills because of Xtreme Reading.

<i>N</i>	Teachers Surveyed				
	12				
Grade/Subject	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Sixth-Grade English/language arts	0	2	1	0	0
Seventh-Grade English/language arts	1	0	1	2	0
Eighth-Grade English/language arts	1	1	1	0	0
Xtreme Reading	0	1	0	1	0

Table 18

Question 10—Teacher's satisfaction rating (1-5 scale, 1 lowest, 5 highest) with the Xtreme Reading program.

<i>N</i>	Teachers Surveyed					
	12					
Grade/Subject	(Rating, 1-5)	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Sixth-Grade English/language arts		0	0	0	1	2
Seventh-Grade English/language arts		0	0	0	3	1
Eighth-Grade English/language arts		0	0	1	0	2
Xtreme Reading		0	0	0	0	2

The qualitative data from the teacher survey indicate that the majority of the teachers (10 of 12, 85.7%) agree to strongly agree that most of their students are

improving their overall reading skills because of Xtreme Reading. To further answer Research Question 3, the researcher then looked at the additional questions in which the teachers rated students' improvement in reading comprehension, reading aloud skills, spelling, and vocabulary because of Xtreme Reading. The majority of the teachers (11 of 12, 91.6%) agree to strongly agree that their students reading comprehension and reading aloud skills improved because of Xtreme Reading. There was a slight decline in teachers who agree to slightly agree (six of 12, 50%) that students spelling improved due to the Xtreme Reading program. When the survey question asked if their students were improving their vocabulary because of Xtreme Reading, all teachers (12 of 12, 100%) agree to strongly agree with this survey question. All teachers (12 of 12, 100%) agree to strongly agree that most of their students were benefiting from the Xtreme Reading strategies.

Summary

Both qualitative and quantitative data analysis supports the anticipated outcomes of this program review. There are potential reasons for this and those are discussed in more detail in the next chapter. There is a significant difference at the $p \leq .05$ level in the reading loss and/or gain for data gathered from the TOSCRF ($p = .000$), AimsWeb RCBM ($p = .000$) and MAZE ($p = .000$) assessments, and the EOG Reading exam ($p = .048$). The students in the sample group increased their mean scores amongst all four assessments between the pre and postadministrations used to determine academic learning gain or loss.

The data analysis from the AMRP Survey also supports statistically the anticipated outcomes. Student survey mean scores show a significant gain in points (2.139) on the full survey from the first to second administration with a statistical

significant difference at the $p \leq .05$ level, specifically $p = .041$. Finally, overall data from the Xtreme Reading and English/language arts teachers show satisfaction with the Xtreme Reading program. Overall, seven of 12 teachers, 58.3%, rated a 5 of 5 for high satisfaction with the Xtreme Reading program. Additionally, four of 12 teachers, 33.3%, rated a 4 of 5 satisfaction, and only one teacher of 12, 8.3%, rated the program with a 3 of 5 on the scale. A total of 11 of 12 teachers, 91.6%, chose a 4 or 5 of 5 rating from the teacher surveys on implementation of the processes (support systems). This reveals that overall all teachers participating in the survey perceive that the Xtreme Reading program is beneficial for their students in their English/language arts classes.

A full discussion of the program evaluation, including conclusions and implications, is in Chapter 5, along with interpretation of the research findings. This research is discussed within the context of best practices for providing an effective reading remediation program for struggling adolescent readers. Chapter 5 also includes recommendations for future research.

Chapter 5: Discussion

Introduction

This chapter summarizes the findings of the program review of the implementation and examines the efficacy of a research-based, reading remediation program, Xtreme Reading, and its reading and vocabulary strategies as interventions on the reading achievement of students in sixth, seventh, and eighth grades during the 2013-2014 school year. The findings in this study will be beneficial to many secondary principals who may not be formally trained in literacy development but, nevertheless, are held accountable for literacy development, implementation, and evaluation as instructional leaders (Zipperer et al., 2002).

Summary of Results

This program evaluation assessed a remedial reading program, Xtreme Reading, which aims to reduce or eliminate gaps in reading performance as measured by the TOSCRF, AimsWeb RCBM and MAZE assessments, and the state EOG reading exam. The study also evaluated if student participation in the Xtreme Reading program increased reading motivation and student perception of reading value as measured by the AMRP Survey, which has two subgroupings, one that measures self-concept as a reader and another that measures the perception of the value of reading. Finally, this study also evaluated teacher perceptions of student reading achievement related directly to the Xtreme Reading program as measured by the Xtreme Reading Teacher Survey and CERT Survey.

Despite the need for research on best practices for struggling adolescent readers, there has been limited research on reading interventions for older readers compared to the amount of research for preadolescent readers (Vacca & Vacca, 2008). The research in

this study adds to the research on the effects of reading interventions at the secondary level as a possible way to prevent students from dropping out of school. A low reading achievement level is one of the key risk factors for dropping out of school (Biancarosa & Snow, 2004).

The research questions were organized and developed around the four evaluation types contained in the CIPP model by Stufflebeam (2003): (a) context questions, to determine the perceived issues that initially established a need for the remedial reading program, Xtreme Reading; (b) input questions, to determine the perceptions related to which remedial reading programs were examined prior to the implementation of Xtreme Reading; (c) process questions, to determine perceptions on how the Xtreme Reading program and the processes were implemented; and (d) product questions, to determine the program's impact, effectiveness, sustainability, and transportability (Stufflebeam, 2003). Throughout this study, the following three research questions guided the program review of the effects of the remedial reading program, Xtreme Reading.

1. To what extent will the SIM reading comprehension and vocabulary strategies (Self-Questioning, Paraphrasing, Inference, LINC'S Vocabulary, Word Mapping, and Word Identification) taught in the Xtreme Reading program impact a student's reading comprehension level as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and state-level EOG reading exams?

2. To what extent did year-long participation in the Xtreme Reading program increase student reading motivation and student perception of the value of reading, as measured by the AMRP Survey?

3. To what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive a possible change in student reading

comprehension and vocabulary development through utilization of the SIM reading and vocabulary strategies as measured by the Xtreme Reading Teacher Survey and CERT Survey?

The first research question examines the yearly mean gains in reading achievement scores for adolescent readers as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and current compared to previous year EOG reading exams following participation in the Xtreme Reading program. The independent variable in the first research question is the Xtreme Reading program. Students are chosen for the program based on screening scores provided by the TOSCRF within the first 10 days of school. Students performing two grade levels below their peers are placed into the program. Teacher recommendations are also used based on teacher observations of students being identified as reluctant and/or poor readers.

The dependent variable was the student's test scores on the AimsWeb quarterly progress monitoring assessments, pre and postassessments of the TOSCRF, and previous year compared to state-level EOG reading exam scores. The idea was to determine the amount of yearly mean gains in reading achievement scores for adolescent readers enrolled in the remedial reading program Xtreme Reading. AimsWeb quarterly assessments occurred in the fall and again in the spring in between each 9-nine week grading period. The TOSCRF assessment was given at the beginning of the school year prior to enrollment in the Xtreme Reading program and again within the last 10 days of the school year. The EOG state reading exam reading score for the 2013-2014 school year was compared to the student's EOG reading exam score from the previous year. The student pre and postscores from these three assessments were used to help determine if there was a difference in the mean gains in reading performance of students after

enrollment in the year-long Xtreme Reading program.

The independent variable for the second research question is the Xtreme Reading program. The dependent variable for the second question is the student's score on the reading survey that determines the student's attitude towards reading. The idea is to determine if providing the Xtreme Reading remedial program develops a stronger sense of reading confidence in the student. The student's score on the reading survey administered after 18 weeks of the Xtreme Reading program is compared to the student's score on the same reading survey administered after 36 weeks of the Xtreme Reading program.

The third research question examines to what extent will Xtreme Reading and sixth- through eighth-grade English/language arts teachers perceive gains in the reading achievement scores of their students in the Xtreme Reading program as measured by the Xtreme Reading Teacher Survey and CERT Survey. The independent variable in the third research question is the group of English/language arts and Xtreme Reading teachers at the research site. The dependent variable for the third question is the teachers' score on the CERT survey that determined their attitudes toward the Xtreme Reading program. The score from this survey is used to help determine if there is a teacher perception in the gains of reading performance of their students after enrollment in the year-long Xtreme Reading program.

Conclusions

The first research question examined the yearly mean gains in reading achievement scores for adolescent readers as measured by in-class, AimsWeb quarterly progress monitoring, pre and postassessments of the TOSCRF, and previous year compared to state-level EOG reading exams following participation in the Xtreme

Reading program. There was a significant increase in reading achievement between the pre and postadministrations for all four of these assessments. The treatment group shows increases in mean gains for these reading assessments: TOSCRF: 4.8-8.5, RCBM: 123.4-158.8, MAZE: 16.8-22.4, and EOG Reading: 422.4-447.4. The students in the sample group increase their mean scores among all four assessments between the pre and postadministrations used to determine academic learning gain or loss. There is a statistically significant difference at the $p \leq$ the .05 level in the reading loss and/or gain for data gathered from the TOSCRF ($p = .000$), AimsWeb RCBM ($p = .000$) and MAZE ($p = .000$) assessments, and the EOG Reading exam ($p = .048$).

The second research question analyzes data of Xtreme Reading students who participated in the AMRP Survey. The data analysis from the AMRP Survey also supports statistically the anticipated outcomes. Students in the program completed this survey two times. The first administration occurred at the middle of the school year after 18 weeks of Xtreme Reading instruction. The second administration took place on the last day of school after a full year of participation in the Xtreme Reading program. The students showed a gain in mean scores on the overall survey from the first to second administration. Students' survey mean scores show a significant gain in points (69.031-71.171, increase of 2.139) on the full survey from the first to second administration with a statistical significant difference at the $p \leq$ the .05 level, specifically $p = .041$. This suggests that students show a higher motivation to read as well as a significant gain in student value of reading after participating in the Xtreme Reading program for 1 year.

Finally, overall data from the Xtreme Reading and English/language arts teachers show satisfaction with the Xtreme Reading program. Overall, seven of 12 teachers, 58.3%, rated a 5 of 5 for high satisfaction with the Xtreme Reading program.

Additionally, four of 12 teachers, 33.3%, rated a 4 of 5 satisfaction and only one teacher of 12, 8.3%, rated the program with a 3 of 5 on the scale. A total of 11 of 12 teachers, 91.6%, chose a 4 or 5 of 5 rating from the teacher surveys on implementation of the processes (support systems). Overall, this reveals that all teachers participating in the survey perceive that the Xtreme Reading program is beneficial for their students in their classes.

The data analysis used to evaluate the Xtreme Reading program in all three research questions supports the anticipated outcomes. Students participating in the Xtreme Reading program performed significantly better on the assessments of TOSCRF, RCBM, MAZE, and EOG reading exam; and the AMRP Survey. Analysis of teacher perception data on an increase in student reading achievement for students participating in the Xtreme Reading program shows significant beliefs that teachers overwhelmingly feel that student performance in reading is increased by participation in the Xtreme Reading program.

Limitations

This study does present several limitations. This program evaluation has the focus on determining if providing a remedial reading program, Xtreme Reading, will increase academic gains in reading as well as increase a student's motivation to read and value placed on reading. The overall study is small in size. This is mainly due to small teacher allotments of remediation teachers at the research site. The school is only allotted two reading remediation teachers. Also, due to only having two Xtreme Reading teachers, the amount of students served in the program remains a small size. At the beginning of the 2013-2014 school year, 80 students began the program. At the end of the school year, student enrollment in Xtreme Reading dropped from 80 to 67, thus

making it more difficult to generalize the findings from this study; however, 67 of 80 students fully participating in the year-long Xtreme Reading program accounts for an 83.7% completion rate.

This study also relies on students, and their abilities to concentrate may change as they grow up as well as being truthful while they answer the survey questions. Students were given ample time and a quiet environment to complete the surveys. All of the students completed the survey in the same room and at the same time which may affect how they responded to the questions objectively and truthfully. The study relies on student assessment scores to answer the first research question. This assumes students gave their best effort on the assessment. Maturation concerns, such as fatigue, inability to concentrate, and answering questions objectively can certainly impact the outcomes of the analysis. Giving students the same survey twice leans itself to bias for repeatedly measuring the participants. Participants may remember the correct answers or may be conditioned to know that they are being tested. Repeatedly taking the same or similar tests usually leads to score gains; but instead of concluding that the underlying skills have changed for good, this internal threat can rival the tested research question.

There was no control group for test data or reading survey data analysis, thus leading to selection bias as a threat to internal validity. The researcher only used the treatment group of Xtreme Reading students for data analysis. Since there were no control groups in all of the research questions, there were no comparison groups for data analysis. Data analyses may be stronger if there were comparison groups for these research questions. It would be thought provoking to see if comparison groups experience the same increases in mean gains as seen in the outcomes from all of the research questions.

Implications

Policymakers are calling the literacy problems facing many American secondary schools a *crisis* (Conley & Hinchman, 2004). To respond to the crisis, the 2006 federal budget included \$200 million to support the Striving Readers initiative to improve the reading skills of secondary students (White House Press Release, 2005). The implications from this study support the research indicating that reading achievement skills for struggling adolescent readers can be accelerated with research-based intervention strategies. The findings in this study indicate that the Xtreme Reading program can produce significant gains in reading achievement.

Struggling adolescent readers construct new knowledge and understanding based on what they already know and believe; many secondary students need a conceptual framework as a context for new learning. Biancarosa and Snow (2004) identified 15 critical elements of effective adolescent literacy programs in the Reading Next report from the Alliance for Excellent Education. The cornerstone of any highly effective literacy program for struggling adolescent readers must include professional development, formative assessment, and summative assessment. Xtreme Reading contains comprehensive implementation training, including school site instructional support (Deshler, 2008). AimsWeb serves as the formative assessment component for Xtreme Reading and the TOSCRF and EOG state exam for reading are used as summative assessments.

Xtreme Reading anchors student learning to scaffold background knowledge and create mental models (Deshler, 2008). The findings in this study indicate that greater gains in reading achievement can be obtained by developing higher order thinking through the implementation of Xtreme Reading. The findings of the study revealed

significant gains in reading achievement when Xtreme Reading was implemented at Level 3 as defined by the CLC (Bremer et al., 2002). Allington and Johnston (2000) argued that “almost every curriculum scheme works in some sites, and none has ever worked well everywhere. That has been the finding time after time when state and federal educational initiatives have been evaluated” (p. 467). The implications of this study suggest that a remedial reading program is effective as a reading intervention when moderate fidelity of implementation is maintained.

President George W. Bush signed the NCLB Act as a reauthorization of the Elementary and Secondary Education Act in January 2002, ensuring that all students receive a quality education and reach proficiency in the core subject areas. The NCLB Act requires that highly qualified teachers use reading interventions that are scientifically based and proven to be effective. During this era of increased accountability, the findings in a number of Xtreme Reading studies have shown significant reading achievement gains for middle schools in school districts located in Nebraska, Boston, Michigan, British Columbia, and other northeastern states (Kemple et al., 2008; Losh, 1991; Mothus, 1997, Woodruff et al., 2002).

At the same time that standards and expectations are being raised, many schools continue to rely on textbooks as the primary printed source of curriculum delivery, even in light of evidence that the average student in secondary classrooms is reading below the level of many content-area texts (Allington, 2005). This study adds support to the research indicating that when the Xtreme Reading instructional model is implemented with fidelity, reading achievement gains are realized.

Literacy is one of the most crucial items on a principal’s agenda (Booth & Rowsell, 2002; Zipperer et al., 2002). Baumann (1984) contended that the success of a

school's literacy program is directly linked to a strong instructional leader. Likewise, Marzano (2005) asserted that the school leader is a major influence on student achievement. Despite the significant impact that the principal has on student achievement, many principal preparation programs are not adequately preparing principals for the instructional demands, particularly in the area of literacy (Kibble, 2004). Principal preparation programs must prepare school leaders for the standards-based instructional environments to ensure the goal of educational equity for all students (Young & Creighton, 2002). Principal preparation programs must provide research in reading pedagogy and best practices. The programs must help aspiring leaders identify optimal reading instruction through effective professional development. The principal's decision to implement and maintain a remedial reading program in the middle school setting demonstrates a commitment to literacy improvement in the school. The implication is that literacy must be embraced vertically across the grade levels and content areas. The phrase "every teacher is a teacher of reading," coined by William S. Gray in 1937, must be embraced and fully realized to ensure that all students are ready for postsecondary education and the ever-changing world of work.

Recommendations for Further Research, Policy, and Practice

The findings in this study reveal that an intensive reading intervention, Xtreme Reading, significantly improves reading achievement for struggling adolescent readers when implemented with moderate fidelity. Future research should focus on sustaining highly effective reading intervention processes at the secondary school level to increase the likelihood of transition from middle to high school in order to reduce the drop-out rate at the high school level. This reading intervention study is limited by sample size and restricted to a 1-year span. For future research, larger samples should be selected

from subgroups with a longitudinal approach of more than 1 year of evaluation. Many questions remain regarding effective strategies to accelerate the reading improvement of struggling adolescent readers.

Policy

Future research is recommended to investigate the outcomes of embedding Xtreme Reading into the traditional language arts course and configuring a schedule to provide time for Xtreme Reading without removing the elective offering that the class takes at the present time. This action may require policy and curricular changes to embed Xtreme Reading in the local middle school language arts curriculum. Analyses of the achievement of the Xtreme Reading students enrolled in a language arts class where Xtreme Reading is embedded could be compared to the achievement of a like group of students who receive a double dose of language arts instruction without Xtreme Reading. In addition to this recommendation comes the need to study the cost-benefit analysis of Xtreme Reading implementation at the district level versus not adopting this program or any other remedial reading program at the middle and high school levels. A cost-benefit analysis study would be beneficial to any district looking to implement a district-wide reading remediation program. This study would help evaluate for school district administrators, specifically in the area of curriculum and instruction, if adopting a district-wide remedial reading program would benefit the district monetarily over time in relation to the cost to implement this program at the secondary level.

Practice

Principal leadership is critical for improved student outcomes. Future research is recommended to measure the correlates of effective principals with regard to literacy development using reading intervention programs that lead to successful outcomes for

struggling adolescent readers. A qualitative study is recommended to examine the following principal leadership characteristics to determine the effect on reading achievement: (a) upholds the vision of every student reading; (b) collaborates with the district reading coordinator; (c) ensures that teachers collect assessment data and assists teachers in a collaborative analysis and application of the data for making key instructional decisions; (d) places effective reading teachers in reading/core classes where students struggle the most; (e) supports, guides, and evaluates reading teachers, interventionists, specialists, and coaches; (f) involves parents and families in school-wide reading seminars, endeavors, and celebrations; (g) stays current on scientifically based reading research; (h) serves as the instructional leader for the school; (i) provides time for collaboration among staff, with a focus on reading achievement; (j) ensures that schedules adequately provide uninterrupted time for reading instruction; (k) knows the names and faces of all students who are in danger of failing to learn to read competently and actively seeks them out in order to motivate and encourage them (Banks, Ebbers, Geiger, & Hasbrouck, 2005).

There is a need for systemic and inclusive professional development in all subject areas at the secondary school level to ensure that *every teacher is a teacher of reading*. A school-wide commitment to implementation of a literacy plan is essential to increasing the academic success of all students. Further research is recommended to investigate the types of professional development that will improve literacy across all subject areas. Research is also recommended to investigate the differences in the achievement gaps between diverse groups of students to further guide instructional practices and school improvement models to close the achievement gap. The findings in this study revealed significant mean gains among African-American, Hispanic, and White participants based

on the diverse sample size of this study.

Research

A longitudinal study is needed to examine the impact of Xtreme Reading on student retention from middle to high school as well as desired outcomes of graduation and readiness for postsecondary opportunities. Research in this study indicates that eighth-grade reading achievement is a good predictor of high school graduation (Biancarosa & Snow, 2004). The longitudinal study can investigate the effect of vertical alignment across grade levels with regard to the implementation of Xtreme Reading at the middle and high school levels to provide support to struggling readers for academic and postsecondary success. Will the continuation of intensive reading intervention at the secondary level influence at-risk students to remain in school and not drop out?

Summary

Chapter 5 presents the findings of the research study as well as conclusions, implications, and recommendations for researchers and educators. This study investigated the effects of the Xtreme Reading program on reading achievement for middle school students not reading at grade level. The findings indicate that with fidelity of Level 3 Implementation of Xtreme Reading of the CLC (Deshler, 2008), there was a significant increase in reading achievement among students participating in the program. The findings also revealed an increase in student motivation to read as well as perceived student value of reading, and teacher beliefs were strong in regards to the success of the Xtreme Reading program for students at the research site.

Many secondary principals face the increased demands to be instructional leaders due to complex accountability standards. More importantly, there is a responsibility to ensure that all students are prepared for successful completion from high school with the

necessary skills for postsecondary education and the global economy they will enter.

Literacy is one of the major issues facing secondary principals (Booth & Rowsell, 2002; Zipperer et al., 2002). Central office personnel, principals, teachers, and reading coaches must all accept a leadership role in order to improve academic achievement for all students. Effective principal preparation and professional development programs are essential to ensure that principals are prepared for the instructional demands of the position. In order to meet the instructional and literacy demands that students will face in the global economy, the principal must build leadership capacity at all levels of the school organization. Principals are entrusted with the responsibility to make sure that all students are successful and graduate from high school prepared for further education, training, and the world of work.

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Appendix A

Content Enhancement Routine Teacher (CERT) Survey Questions and Xtreme Reading Teacher Survey Questions

[Edit this form](#)

Xtreme Reading Teacher & ELA Teacher Survey 2014

Adapted from Striving Reader Grant Model of Change—Price, Tao, and Goodson (2006).

Dear Teacher:

This survey is part of a program evaluation of Xtreme Reading conducted by Susan Nichols (Owens), C & I Doctoral Candidate at Gardner-Webb University. It includes questions about students from the Xtreme Reading Program that is implemented at this school. No information from this survey will be used to evaluate you in any way. Your responses will be kept completely confidential and stored at a secure location at Gardner Webb University. Your individual responses will not be shared with any district or school staff members outside of the researcher who is the Principal of this school.

The survey should take no more than 10 minutes to complete. Thank you in advance for your participation in this survey.

*** Required**

Tell us about yourself-- *

How many years have you worked as a teacher? (Count part of a year as one year).

Tell us about yourself-- *

How many years have you worked at this school? (Count part of a year as one year).

Indicate your level of teacher certification: *

Pick one—

- ☐ Probationary Teacher
- ☐ Career Teacher

Indicate which subject and grade level you teach: *

Pick one—

- ☐ 6th grade ELA
- ☐ 7th grade ELA
- ☐ 8th grade ELA
- ☐ Xtreme Reading Teacher

Most of my students enjoy the Xtreme Reading program in general. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students enjoy the Xtreme Reading novels and non-fiction books. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students are improving their overall reading skills because of Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students are improving their reading comprehension because of Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students are improving their skills in reading aloud because of Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students are improving their spelling because of Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

Most of my students are improving their vocabulary because of Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
☐ Disagree
☐ Undecided
☐ Agree
☐ Strongly Agree

Most of my students are benefiting from the Xtreme Reading strategies. *

Pick one—

- ☐ Strongly Disagree
☐ Disagree
☐ Undecided
☐ Agree
☐ Strongly Agree

Most of my students are benefiting from the writing they do in Xtreme Reading. *

Pick one—

- ☐ Strongly Disagree
☐ Disagree
☐ Undecided
☐ Agree
☐ Strongly Agree

Other comments about how Xtreme reading is affecting your students?

Please rate your satisfaction with the Xtreme Reading program. *

Pick one—

1 2 3 4 5

Not at all satisfied ☐ ☐ ☐ ☐ ☐ Very satisfied

Appendix B

Adolescent Motivation to Read Profile (AMRP) Survey Questions

Figure 1
Adolescent Motivation to Read Profile reading survey

Name: _____ Date: _____

Sample 1: I am in _____.

- ☐ Sixth grade
- ☐ Seventh grade
- ☐ Eighth grade
- ☐ Ninth grade
- ☐ Tenth grade
- ☐ Eleventh grade
- ☐ Twelfth grade

Sample 2: I am a _____.

- ☐ Female
- ☐ Male

Sample 3: My race/ethnicity is _____.

- ☐ African-American
- ☐ Asian/Asian American
- ☐ Caucasian
- ☐ Hispanic
- ☐ Native American
- ☐ Multi-racial/Multi-ethnic
- ☐ Other: Please specify _____

1. My friends think I am _____.

- ☐ a very good reader
- ☐ a good reader
- ☐ an OK reader
- ☐ a poor reader

2. Reading a book is something I like to do.

- ☐ Never
- ☐ Not very often
- ☐ Sometimes
- ☐ Often

3. I read _____.

- ☐ not as well as my friends
- ☐ about the same as my friends
- ☐ a little better than my friends
- ☐ a lot better than my friends

4. My best friends think reading is _____.

- ☐ really fun
- ☐ fun
- ☐ OK to do
- ☐ no fun at all

5. When I come to a word I don't know, I can

- _____.
- ☐ almost always figure it out
- ☐ sometimes figure it out
- ☐ almost never figure it out
- ☐ never figure it out

6. I tell my friends about good books I read.

- ☐ I never do this
- ☐ I almost never do this
- ☐ I do this some of the time
- ☐ I do this a lot

7. When I am reading by myself, I understand

- _____.
- ☐ almost everything I read
- ☐ some of what I read
- ☐ almost none of what I read
- ☐ none of what I read

8. People who read a lot are _____.

- ☐ very interesting
- ☐ interesting
- ☐ not very interesting
- ☐ boring

9. I am _____.

- ☐ a poor reader
- ☐ an OK reader
- ☐ a good reader
- ☐ a very good reader

(continued)

Figure 1 (continued)
Adolescent Motivation to Read Profile reading survey

Name: _____ Date: _____

10. I think libraries are _____.

- ☐ a great place to spend time
- ☐ an interesting place to spend time
- ☐ an OK place to spend time
- ☐ a boring place to spend time

11. I worry about what other kids think about my reading _____.

- ☐ every day
- ☐ almost every day
- ☐ once in a while
- ☐ never

12. Knowing how to read well is _____.

- ☐ not very important
- ☐ sort of important
- ☐ important
- ☐ very important

13. When my teacher asks me a question about what I have read, I _____.

- ☐ can never think of an answer
- ☐ have trouble thinking of an answer
- ☐ sometimes think of an answer
- ☐ always think of an answer

14. I think reading is _____.

- ☐ a boring way to spend time
- ☐ an OK way to spend time
- ☐ an interesting way to spend time
- ☐ a great way to spend time

15. Reading is _____.

- ☐ very easy for me
- ☐ kind of easy for me
- ☐ kind of hard for me
- ☐ very hard for me

16. As an adult, I will spend _____.

- ☐ none of my time reading
- ☐ very little time reading
- ☐ some of my time reading
- ☐ a lot of my time reading

17. When I am in a group talking about what we are reading, I _____.

- ☐ almost never talk about my ideas
- ☐ sometimes talk about my ideas
- ☐ almost always talk about my ideas
- ☐ always talk about my ideas

18. I would like for my teachers to read out loud in my classes _____.

- ☐ every day
- ☐ almost every day
- ☐ once in a while
- ☐ never

19. When I read out loud I am a _____.

- ☐ poor reader
- ☐ OK reader
- ☐ good reader
- ☐ very good reader

20. When someone gives me a book for a present, I feel _____.

- ☐ very happy
- ☐ sort of happy
- ☐ sort of unhappy
- ☐ unhappy

Note. Adapted with permission from the Motivation to Read Profile (Gambrell, Palmer, Codling, & Mazzoni, 1996)