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Tier 1 and Tier 2 Reading Interventions in English Language Arts Classrooms at a Rural High School

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This is to certify that the doctoral dissertation by

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2016

Abstract

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by

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MA, Regis University, 2007

BS, Fort Lewis College, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Average scores from the 2013 National Assessment of Educational Progress in reading for Grade 12 students indicated that only 38% of Grade 12 students were proficient in reading. Even though research has been conducted on reading interventions for elementary and middle school students, little is known about how teachers implement reading interventions at the high school level. The purpose of this study was to explore how teachers implemented Tier 1 and/or Tier 2 reading interventions in high school English language arts courses. The conceptual framework was based on Vygotsky's (1929) theoretical research about scaffolding instruction in the zone of proximal development. This qualitative study used a single case study design. Participants included 5 English language arts teachers who provided classroom reading interventions in a rural high school in the Southwestern United States. Data were collected from multiple sources, including teacher interviews, reflective journals, observations, and district and school documents. Data were analyzed using line-by-line coding and the constant comparative method to construct categories to determine emerging themes and discrepant data. Findings indicated that the teachers used formal and informal assessments for reading intervention placement. They also used a variety of scaffolding strategies to differentiate or individualize intervention instruction and computer-based programs to monitor and assess student progress. This study contributes to social change by providing a deeper understanding of how high school English teachers implement interventions for students at risk in reading so that the effectiveness of those interventions can be examined later.

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Dedication

This dissertation is dedicated to the Campbell family, my husband Christopher, my daughter Christina, and my two grandsons, Micah Lynn Brown and Jaden Dean Brown, who have been there for me while I worked many long hours writing and studying. This dissertation is also dedicated to my dearest brother Richard James Campbell who did not live to see me put this education into action but always supported me. I thank them for supporting my desire to earn a PhD in education.

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Chapter 1: Introduction to the Study

Public school educators are required to implement response to intervention (RTI) as a result of the Individual with Disabilities Education Improvement Act of 2004 (IDEIA), which the United States Congress passed in 2004. Primarily referring to the core academic subjects, RTI is defined as "an inadequate change in target behaviors as a function of intervention. The goal of all interventions is to produce a discrepancy between baseline and post-intervention levels of performance" (Gresham, 2005, p. 329). RTI is also defined as "a process that determines if the child responds to scientific research-based intervention as a part of the evaluation procedures" (Public Law 108-446). This RTI definition includes three tiers of intervention. Tier 1 interventions are high quality core instruction that teachers provide in the general education classroom (Gresham, 2005). Tier 2 interventions are interventions of moderate intensity that classroom teachers and reading specialists often provide in small groups (Gresham, 2005). Tier 3 interventions are individualized interventions of increased intensity that special education teachers provide for students who show minimal response to Tier 2 interventions (Gresham, 2005). Teachers often use curriculum-based measurements in these tiered interventions to determine if students have mastered specific reading skills (Soper & Marquis-Cox, 2012). In addition, professional development for teachers who implement these interventions using the RTI model is often needed as a result of the implementation process (Dulaney, 2013).

Researchers have conducted some studies on Tier 1 and Tier 2 reading interventions in the general education classroom at the elementary school level (Henley

& Furlong, 2006; Hoover & Love, 2010; Legere & Concha, 2010; McClain, Schmertzing, & Schmertzing, 2012; Perelas et al., 2009; Powers & Mandal, 2011), but qualitative research on Tier 1 and Tier 2 reading interventions in high school classrooms is limited. More research is needed about how teachers implement reading interventions in the general education classroom at the high school level in order to improve student achievement in reading, particularly reading comprehension. Additional research is needed to develop a deeper understanding about how high school teachers determine appropriate intervention placements, scaffold instruction, and monitor student progress within their classroom interventions for those students who are not proficient in reading. This study explored how teachers implement instruction and assessments in Tier 1 and/or Tier 2 reading interventions in high school classrooms at a rural public high school located in the southwestern region of the United States, where supplemental resources for intervention instruction are often limited.

In relation to social change, this study advances knowledge in the field of reading, particularly in relation to how teachers in rural public high schools implement Tier 1 and Tier 2 reading interventions in the general education classroom for high school students who are not proficient in reading. This study also provides educational stakeholders with a deeper understanding of the practices that teachers in rural high schools use to determine student placement, scaffold instruction, and monitor student progress in relation to reading interventions they manage in their classrooms. In addition, this study contributes to positive social change because the modern global community demands literate citizens.

This chapter is an introduction to this study. It includes background information in relation to a summary of the research literature followed by the problem statement. The purpose of the study is also included as well as the central and related research questions and the conceptual framework. In addition, the nature or methodology of the study, definitions, assumptions, scope and delimitations, limitations, and significance are included. A summary concludes the chapter.

Background

Significant research has been conducted on interventions for K-12 students who are not proficient in reading. Dulaney (2013) conducted a qualitative case study about RTI at a middle school and found that the collection of data for student placement is challenging because it takes resources to build the infrastructure necessary to determine appropriate placements and interventions that need to be implemented in the general education setting. In another study, Smith and Okolo (2010) explored the role of technology in a RTI model for special education students at all levels, including middle and high school. Smith and Okolo found that the use of graphic organizers and technology software, such as Naturally Speaking and Write Online, improved reading and writing skills for students with learning disabilities. Vaughn Roberts, Wexler, & Vaughn (2011) conducted a year-long pre- and post-experimental study of Grade 8 students who had demonstrated inadequate responses to interventions. Vaughn et al. found that Grade 8 students who participated in technology integrated Tier 2 and Tier 3 interventions through small group instruction demonstrated higher scores on standardized measures of reading comprehension and word identification than students who did not

receive technology integrated interventions. Reed and Sturges (2012) conducted a study of the assessment fidelity of 29 educators who administered and interpreted an oral reading fluency assessment for students in Grades 6, 7, and 8 to determine reading intervention placement. Reed and Sturges found that these educators posed threats to the reliability of the assessments because 8% of these assessments were found to have missing or uncorrectable data, which meant that the data could not be used for instructional decision making. Reed and Sturges concluded that teachers rely on accurate data collection to identify students, determine the curricular and instructional components of the intervention, and interpret the outcomes.

Research has also been conducted on instructional practices that teachers use during interventions for K-12 students who are not proficient in reading. In a pre- and post-experimental study, Therrien, Kirk, and Woods-Groves (2011) explored interventions to improve reading fluency for students in Grades 3-5 and found that the instructional strategy of reading passage repetition improves reading fluency. In an exploration of a 3 year intensive tiered reading intervention for students in Grades 6-8, Pyle and Vaughn (2012) used a pre- and post-test experimental design to explore how teachers remediate reading difficulties in an RTI model with secondary students. In the first year, students participated in Tier 1 and Tier 2 interventions, and in the second year, those students who did not respond appropriately to instruction were placed in Tier 3 interventions (Pyle and Vaughn, 2012, 275). Pyle and Vaughn found that students improved on state reading assessments when placed in reading interventions with teachers who received professional development about effective instructional practices

related to these reading interventions, including how to develop individual plans for students. Pyle and Vaughn also found that teachers provided those students with additional intensive word study and text reading instruction. Pyle and Vaughn concluded that professional development is essential to improve teachers' knowledge of how to use evidenced-based instructional strategies to improve students' reading skills and how to efficiently collect and interpret student data to inform instruction.

In other research about instructional interventions in reading, Richards-Tutor et al. (2012) conducted a study of a Title 1 elementary school in a semirural, predominantly Spanish-speaking community in southern California. Richards-Tutor et al. used a pre-post experimental design to explore models for determining response and non-response of kindergarten students who were second language learners. The treatment involved the use of specific instructional strategies such as decoding, spelling, vocabulary instruction, and phonemic awareness instruction. Richards-Tutor et al. found that students who participated in the interventions scored higher in reading than students who did not participate in them. In another study using a pre- and post-experimental design, Kerins, Trotter, and Schoenbrodt (2010) investigated the effects of a Tier 2 intervention in reading for Grade 1 students that emphasized phonemic awareness skills, including word families, decoding, and sight words. Kerins et al. found that students who participated in a Tier 2 reading intervention significantly improved in phonetic awareness, particularly in relation to segmenting, blending, and recognizing sight words. In a meta-analysis, Hill et al. (2012) investigated the fidelity of RTI implementation and instructional alignment in RTI studies and found that the effectiveness of Tier 2 interventions for students depends

on the quality and fidelity of Tier 2 instruction and the alignment of that intervention with Tier 1 instruction. The quality of Tier 2 instruction is based on how reading intervention instruction complements and reinforces classroom instruction, making connections between the targeted skills and instructional strategies that teachers use. Fletcher and Vaughn (2009) examined RTI for middle school students with reading difficulties in order to understand how to prevent and remediate academic difficulties for students who have been screened and monitored early in school but still struggle with reading prior to referrals for special education. Fletcher and Vaughn found that teachers had successfully implemented RTI models to improve achievement and behavioral outcomes for all students, especially for those students most at risk for academic difficulties.

Previous research has also been conducted about monitoring progress in reading interventions for K-12 students. Fisher and Frey (2011) conducted a case study about implementing RTI at an urban southwestern high school and found that when teachers used an effective progress monitoring process, which included an examination of grade point averages and attendance records, student learning improved. Sadler and Sugai (2009) reported on a RTI model, known as Effective Behavior and Instructional Support (EBIS), which educators in a school district in northwestern Oregon implemented to improve early identification and prevention of reading and behavior problems. Progress monitoring tools included the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) benchmarks, the Oregon State Assessment in Reading and Literature benchmarks, and oral reading fluency assessments. Sadler and Sugai found four major results after a period of 10 years: (a) sustained implementation of effective behavior

support, (b) improved social behavior, (c) improved early literacy and reading achievement, and (d) improved evaluation, prevention, and early identification of learning disabilities.

A significant gap still exists, however, in qualitative research about how teachers implement effective reading interventions in their classrooms at the high school level. In particular, little is known about how high school teachers use assessment data to make decisions about the identification and placement of students in Tier 1 and Tier 2 reading interventions. Limited qualitative research has also been conducted about the instructional practices that high school teachers use to implement reading interventions in their classrooms, based on their assessment data. A gap also exists in knowledge about how high school teachers monitor student progress in Tier 1 and Tier 2 interventions, particularly in relation to when to move high school students from Tier 1 interventions to Tier 2 interventions and from Tier 2 interventions to Tier 1 interventions.

This study was needed because it advances knowledge about how high school English language arts teachers implement Tier 1 and Tier 2 reading interventions in their classrooms for students who are not proficient in reading. This study contributed to positive social change by providing educators with a deeper understanding about how to provide effective interventions for high school students who are not proficient in reading. Improved reading skills for these students may provide them with better preparation for future careers, and society benefits from a more literate citizenry.

Problem Statement

Prior research indicates that implementation of RTI has often been successful in elementary and middle schools, resulting in improved student reading skills (Casey Robertson, Williamson, Serio, & Elswick., 2011; Dulaney, 2013; Faggella-Luby & Waldwell, 2011; Henley & Furlong, 2006; Hoover & Love, 2010; Johnson & Smith, 2011; Legere & Conca, 2010; McClain, Schmertzing & Schmertzing, 2012). However, prior research also indicates that an increased understanding is needed about how RTI is implemented at the high school level, particularly in relation to how teachers implement Tier 1 and Tier 2 interventions in their classrooms (Fisher & Frey, 2011; Froiland, 2011; Pereles, Omdal, & Baldwin, 2010). In addition, research indicates that teachers need to scaffold reading instruction by controlling task elements that are beyond students' capabilities (Askell-Williams, Lawson & Skrzypiec, 2012; Gredler, 2009; Smith & Okolo 2010). Vygotsky (1935/1944) also believed that scaffolding plays a role in the assessment of a child's capabilities in determining the zone of proximal development for instruction (as cited in Gredler, 2009). This study explores how high school English language arts teachers implement Tier 1 and Tier 2 interventions in their classrooms in order to improve students' reading skills, particularly in relation to comprehension.

Purpose of the Study

The purpose of this qualitative study was to explore how high school English language arts teachers implemented instruction and assessment during Tier 1 and Tier 2 interventions in reading in their classrooms. To accomplish this purpose, how these English language arts teachers used diagnostic assessment data to determine student

placement in Tier 1 and Tier 2 interventions in reading was described. In addition, how teachers provided instruction and monitored student progress during these Tier 1 and Tier reading interventions was described. The professional development that teachers need to effectively implement these interventions in their classrooms was also described.

Research Questions

The following research questions were based on the conceptual framework and a review of the literature for this study.

Central Research Question

How do high school English language arts teachers implement instruction and assessment during Tier 1 and Tier 2 reading interventions in their classrooms?

Related Research Questions

1. How do high school English language arts teachers use diagnostic assessments to determine student placement in Tier 1 or Tier 2 reading interventions?
2. How do high school English language arts teachers scaffold instruction during Tier 1 or Tier 2 reading interventions?
3. How do high school English language arts teachers monitor student progress in Tier 1 and Tier 2 reading interventions?
4. What professional development do high school English language arts teachers need to effectively implement Tier 1 and Tier 2 reading interventions?

Conceptual Framework

The conceptual framework for this study was based on Vygotsky's (1929) research about cognitive development, particularly in relation to the zone of proximal

development. Vygotsky developed a cultural-historical theory of psychological development that includes the role of cultural signs and symbols in the development of attention, abstraction, language, memory, numeric operations, and reasoning (Vygotsky, 1929, as cited in Gredler, 2009; Vygotsky & Luria, 1930, as cited in Gredler, 2009); the identification of outcomes related to cognitive development and the role of scientific concepts in developing thinking (Vygotsky,1934, as cited in Gredler, 2009); and the relationship between thought and speech (Vygotsky, 1934 as cited in Gredler, 2009).

In relation to instruction, Vygotsky (1934) described the role of culture and education in cognitive development. In particular, Vygotsky believed that important components of instruction are determining the appropriate level of instruction, implementing the law of genetic development, and developing students' verbal thinking. In relation to designing instruction to develop higher cognitive functions, Vygotsky identified self-organized attention, categorical perception, conceptual thinking, and logical memory as critical components. Instructional components that are important in facilitating the development of these higher level cognitive functions, Vygotsky argued, are teaching writing, the role of concepts in subject matter, and the role of the teacher. In relation to the role of the teacher, Vygotsky believed that collaboration and scaffolding are particularly important. Vygotsky believed that collaboration between the teacher and the student is essential because the teacher needs to model, explain, and ask students for explanations. Vygotsky also suggested a role for task sharing in the assessment of students' cognitive functions. However, Vygotsky contended that the partner should not be the teacher, but rather a more advanced student. Vygotsky also believed that the ideal

form of cognitive behavior is the behavior of the adult. This adult behavior serves as a model for what the student should achieve. Vygotsky believed that if students are only able to interact with each other, they will experience limited cognitive development; therefore, the role of the teacher in modeling the ideal form is critical to cognitive development.

Vygotsky (1934) also created the concept of the zone of proximal development, which is defined as "the domain of transitions that are accessible by the child" (as cited in Gredler, 2009, p. 337). In recent years, the zone of proximal development has been linked to the concept of scaffolding, which is defined as "the process of controlling task elements that are initially beyond the learner's capacity" (as cited in Gredler, 2009, p. 448). In his development of the zone of proximal development, Vygotsky suggested a role for scaffolding in the assessment of a child's capabilities. This role, Vygotsky argued, is to "determine the tasks that the student can partially complete or complete with extensive guidance because it serves as an indicator of the higher mental processes that are emerging" (as cited in Gredler, 2009, p. 334). Thus, the teacher needs to consider the tasks that the student is able to accomplish independently.

The concept of scaffolding is particularly important to this study because in order to improve students' cognitive development in relation to reading, teachers must be able to determine the appropriate level of instruction, which requires an understanding of students' mental or cognitive processes that are about to emerge. Student readiness is critical to cognitive development. In order to assess this readiness, teachers also need to understand the specific reading skills that students need to master, including reading

fluency, reading comprehension, and vocabulary in relation to complex informational and literary text (VanDerHeyden, 2014). Researchers have found that cognitive measures often accurately predict student achievement levels (Evans et al., 2002; Hale et al., 2003). Therefore, teachers need a clear understanding of students' cognitive strengths and weaknesses prior to the development and implementation of interventions. Scaffolding is a critical concept to consider in designing these interventions.

Nature of the Study

This study used a single case study research design. Yin (2009) defined case study research as an empirical inquiry "that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between the phenomenon and context may not be clearly evident" (p.18). Case study design was a good choice for this study because the boundaries between the phenomenon of RTI and the context of instruction and assessment in the English language arts classroom are often not clear. The single case for this study was the RTI model that English language arts high school teachers used to implement Tier 1 and Tier 2 reading interventions in a small rural public school district in the southwestern region of the United States. The RTI model that the teachers implemented in this study was a standard protocol model because it is prescriptive in nature, which means that teachers follow specific directions in relation to how to implement reading interventions (Johnson, 2008). In this model, teachers implemented Tier 1 and Tier 2 interventions in their classrooms according to specific state and district guidelines.

In relation to the methodology of this study, participants included high school English language arts teachers and a reading specialist responsible for implementing Tier 1 and Tier 2 interventions in their classrooms at this small rural high school. The potential participants were determined, based on the following inclusion criterion: (a) all participants must be licensed English language arts teachers who are employed at this research site, (b) all participants must be implementing Tier 1 and/or Tier 2 interventions in Grades 9, 10, 11, and/or 12 at this research site, and (c) all participants must be responsible for collecting student assessment data that informs their instructional decision making about the interventions they will use to improve students' reading skills. From this pool of potential participants, the technique of purposeful sampling was used to select the participants.

In relation to data collection, I conducted individual interviews with English language arts teachers who provided instruction in reading for students in Grades 9, 10, 11, and 12 at the research site. In addition, I asked these teachers to maintain a reflective journal about their reading interventions. I also conducted observations of interventions in reading at each grade level to determine how these teachers implemented instructional and assessment practices in reading for identified students. In addition, I collected documents related to the implementation of RTI at the research site, including (a) the state standards in reading for Grades 9, 10, 11, and 12; (b) instructional guidelines for each grade level in relation to the implementation of RTI at this research site; (c) group summary results of classroom curriculum-based measurements that assess reading

fluency and comprehension skills and district and state group assessment results in reading for students in Grades 9, 10, 11, and 12 from 2011 to 2014, and (d) district and school documents related to professional development about RTI.

Concerning data analysis, at the first level, used line-by-line coding that Charmaz (2006) recommended to code the interview data, observation data, and reflective journal data. I used a content analysis for the documents, which involved describing the purpose, content, and use of each document. I used the constant comparative method that Merriam (2009) recommended to construct categories for each of these data sources. At the second level, I examined the categorized data across all data sources to determine themes and discrepant data, which were the basis for the findings of this study. I analyzed the findings in relation to the central and related research questions, and I interpreted the findings in relation to the conceptual framework and literature review for this study.

Definitions

Curriculum-based measurements (CBM): Assessments that are used to measure academic competence and progress, including procedures for sampling test stimuli from local curricula, for administering and scoring those assessments, and for summarizing and interpreting the resulting database (Deno, 1985).

Differentiated instruction: Strategies that include designing lessons based on students' learning styles; grouping students by shared interest, topic, or ability; assessing students' learning using formative assessments; and continually adjusting lesson content to meet students' needs.(Tomlinson, 2008).

Mental functions: Vygotksy (1933) defined elementary mental functions as simple memory, simple perceptions, involuntary attention, and syncretic or pre-conceptual thinking. In comparison, Vygotsky defined higher mental functions as logical memory, categorical perception, voluntary attention, and conceptual thinking (as cited in Gredler, 2009).

Progress monitoring: A procedure by which teachers collect data from specific assessments to determine if a student is demonstrating academic progress. Progress monitoring is done frequently throughout the duration of an intervention. Progress monitoring data are used to determine the need for intervention modifications. Documentation is required to monitor individual student progress (Deno et al., 2009).

Reading interventions: These interventions involve diagnosis and tutoring of students with reading difficulties where actions are performed to direct or influence reading ability (Connor, Alberto, & O'Connor, 2014).

Reading standards: Reading standards for K-12 students are defined by the Common Core State Standards for English language arts (CCSS-ELA, 2013) as follows:

> Students who meet the standards readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digitally. They actively seek the wide, deep, and thoughtful engagement with high-quality literary and informational text that builds knowledge, enlarges experience, and broadens worldviews. (p. 3)

Response to intervention (RTI) model: For this study, a standard protocol model was used to provide interventions matched to student needs and that use learning rates over time and level of performance to help teachers make important instructional decisions (Kurns & Tilly, 2008). This model includes three intervention tiers. Tier 1 involves whole classroom instruction, Tier 2 involves small group instruction, and Tier 3 is intensive one-on-one instruction (McCallum et al., 2014). Teachers use the RTI model to address student behavioral problems as well as academic concerns in other subjects.

Scaffolding: A term introduced in recent years to describe the process of controlling task elements that are initially beyond the learner's capacity (Gredler, 2009).

Tier 1 interventions: For this study, these interventions include core instruction that is differentiated for all students. Tier 1 is proactive, preventative, and provides interventions at the earliest point possible when academic or behavior difficulties first arise (Richards-Tutor et al., 2012). It is driven by high quality teaching using differentiated instruction and analysis of student performance data. The teams that support this tier include professional learning communities, data teams, grade level teams, content teams, and other school and district supports aimed at improving core instruction (State Department of Education, 2014).

Tier 2 interventions: For this study, these interventions include providing supplemental, strategic, and individualized support for students who do not respond to Tier 1 instruction and targeted interventions (Richards-Tutor et al., 2012). The teacher gathers all data and looks at all possible causes for the problem and then designs an individualized intervention plan that requires frequent progress monitoring so

adjustments can be made as needed to meet the individual student's learning needs (Richards-Tutor et al., 2012). Students receiving Tier 2 services continue to receive Tier 1 instruction but with the added benefit of more intensive interventions, reducing the amount of unnecessary special education referrals (State Department of Education, 2014).

Zone of proximal development: The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978).

Assumptions

This study was based on several assumptions. The first assumption was that participants in this study were open and honest in their interview and reflective journal responses. This assumption was important because it impacted the trustworthiness of this study. The second assumption was that the documents that I collected about RTI implementation were accurate, particularly the group assessment data related to student achievement in reading. This assumption was important because document accuracy also impacted the trustworthiness of this study. A third assumption was that teachers in this study understood the differences between Tier 1 and Tier 2 reading interventions. This assumption was important because their understanding impacted the credibility of the findings for this study. Another assumption was that teachers understood the state standards they were required to teach in relation to these reading interventions. This understanding was important because the basic skills defined within the standards were the skills that teachers needed to address when they implemented reading interventions.

Scope and Delimitations

The scope or boundaries of this single case study were limited to the RTI model that teachers in an English language arts department implemented in a rural high school located in the southwestern region of the United States. This study was further delimited or narrowed by the participants, time, and resources. The participants for this study were five high school English language arts teachers who provided interventions in reading for identified students in Grades 9, 10, 11, and 12 at the research site. This study was conducted only during the 2015-2016 academic school year. In addition, this study was also delimited by the fact that I was a single researcher with limited resources for data collection and analysis.

Limitations

The limitations of qualitative research are often related to the research design. The first limitation was related to the transferability of the findings for this single case study. This study was conducted at a single rural high school located in the southwestern region of the United States with an enrollment of 1,577 students for the 2014-2015 school year. Participants included five English language arts teachers at this high school who provided reading interventions for identified students. The results of this single case study may only be transferable to rural high schools with similar student and teacher populations. A second limitation was related to the amount of time that I, as a single researcher, was able to spend collecting data at the research site. I interviewed these teachers only once, and I conducted only one observation of reading interventions in their classrooms, which provides a limited snapshot of intervention instruction in reading and could impact the

findings of this study. A third limitation was the lack of resources, including technology, which the teachers at this rural high school faced when planning and implementing these reading interventions. Many of the reading interventions were only available online and because the school district had limited funds, these online interventions were often not an option. The findings may be limited to implementing interventions that do not include technology.

Significance

This study makes an original contribution to educational research because researchers have conducted few studies at the high school level about how English language arts teachers implement instruction and assessment during Tier 1 and Tier 2 reading interventions in their classrooms, particularly in rural high schools. This study also supports professional practice because research is limited about the specific assessment criteria that high school English language arts teachers use to place students in Tier 1 or Tier 2 interventions and monitor their progress as well as the specific instructional strategies that they use during reading interventions. This study also contributes to positive social change by providing educational stakeholders with a deeper understanding about the resources that are needed to develop a new culture of classroom learning in which the individual learning needs of all students are acknowledged and respected so that they can become fully literate members of society.

Summary

This chapter was an introduction to this qualitative study. This chapter included background information related to the scope of the research literature as well as the

problem statement and the purpose of the study. The problem was that educators need to develop a deeper understanding of how to design interventions in reading that effectively support instruction and assessment, the impact of these interventions on student learning, and how to reduce the growing achievement gap in reading. The purpose of this study, as reflected in the central research question, was to explore how high school teachers implement instruction and assessment during Tier 1 and Tier 2 interventions in reading at a rural high school. The conceptual framework was based on Vygotsky's research on cognitive development, particularly in relation to improving higher order thinking skills through scaffolding. The research method used for this study was a single case study. The single case or unit of analysis was the RTI model that teachers used at the research site. In this chapter, definitions of key terms were included as well as assumptions, the scope of the study, and delimitations and limitations. This study is significant because it advances knowledge about how high school English language arts teachers implement instruction and assessment in their classrooms for students who are not proficient in reading.

Chapter 2 is a review of the literature. This chapter includes a review of research related to a historical perspective on reading interventions, different types of RTI models, and identification and placement, instruction, and progress monitoring related to Tier 1 and Tier 2 reading interventions. The conclusion includes a discussion of major themes and gaps found in the review.

Chapter 2: Literature Review

A major problem related to this study is that response to intervention (RTI) has improved student learning for elementary school students (Casey et., 2011; Dulaney, 2013; Faggella-Luby & Waldwell, 2011; Henley & Furlong, 2006; Hoover & Love, 2010; Johnson & Smith, 2011; Legere & Conca, 2010; McClain, Schmertzing & Schmertzing, 2012), but few studies have been conducted at the high school level to determine if these tiered interventions are effective in improving student learning, particularly in relation to reading comprehension skills (Fisher & Frey, 2011; Froiland, 2011; Pereles, Omdal, & Baldwin, 2010). In addition, a need for a deeper understanding of how teachers should implement reading interventions within the classroom at the high school level has been documented (Fisher & Frey, 2013; Froiland, 2011; Pereles, Omdal, & Baldwin, 2010). The purpose of this study was to explore how high school English language arts teachers implement instruction and assessments during Tier 1 and Tier 2 reading interventions in the classroom to improve student achievement in reading.

A review of the research literature for this single case study indicates the relevance of this problem. Historically, remediation in reading addressed the individual needs of students in relation to specific reading skills. In meta-analyses of the literature, several researchers described the change from reading remediation to reading interventions that occurred from 1945-1967 (Edmonds, Vaughn, & Wexler, 2009; Harris, 1967; Solis, Cuille, Vaughn, Pyle, Hassaram, & Leroux, 2012; Solis, Miciak, Vaughn, & Jack, 2014). Struggling readers can improve their reading skills if educators provide targeted interventions to meet individual needs. In relation to current intervention models,

research indicates that the type of model, whether a problem solving model or a standard protocol model or a combination of the two, needs to be determined (Amendum & Fitzgerald, 2013; Bamberger & Cahill, 2012; Dulaney, 2013; Ehren, Desher & Graner, 2010); Gilbert et al., 2013; Searle, 2010; Windram, Bollman, & Johnson, 2012). However, even if the type of model is determined, King, Lemons, and Hill (2012) concluded that the lack of resources available for implementation of RTI is a barrier that teachers and administrators often face in implementing successful interventions for struggling students. Concerning identification and placement of students in Tier 1 and Tier 2 reading interventions in the classroom, researchers found that teachers need to first assess student performance data (Crawford, 2014; Filkins, 2013; Hunley, Davies, & Miller, 2013; Soper & Marquis-Cox, 2012; Tolar, Barth, & Francis, 2012). After this baseline data is in place, teachers should implement reading interventions that are comprehensive, intensive, and informed, with emphasis on letter-sound recognition, vocabulary, text knowledge, and decoding skills (Benboom & McMaster, 2013; Vaughn, Cirino, Wangek, Wexler, Fletcher, Denton, Barth, Romain, & Francis, 2010; Vaughn et al., 2012; Wexler, Vaughn, & Roberts, 2010). Concerning progress monitoring, researchers found that consistent progress monitoring is needed in both Tier 1 and Tier 2 interventions (Filkins, 2013; Hunley et al., 2013; MacCallum et al., 2011; Tolar et al., 2012). Dulaney (2013) also found that professional development is needed in relation to establishing baseline information, identifying and placing students, providing instruction, conducting progress monitoring, and working collaboratively to address reading deficits for individual students.

This chapter includes a description of the literature search strategy used to conduct this review and the conceptual framework that is the basis of this study, particularly in relation to how that framework has been articulated in current research. In addition, research was analyzed about early and current reading interventions, RTI models and related selection factors, reading intervention curricula, reading intervention instruction, and reading intervention assessments. A summary and conclusions are also presented that include a discussion of the major themes and gaps found in the review.

Literature Search Strategy

Several search strategies were used to conduct this literature review. One strategy was to explore several educational search engines, which included the EBSCO, ERIC, and Sage databases found at the Walden University library website. These search engines were also used to obtain the most current research articles that were peer reviewed and published within the past 5 years. Another strategy was to determine key words to conduct a search for these journal articles, which included terms such as *reading interventions in high school, response to intervention in high school, reading standards, scaffolding in reading, Tier 1 interventions in reading in high school,* and *Tier 2 interventions in reading in high school.* Preschool, elementary, and middle school studies were found on reading interventions, but finding studies at the high school level was challenging because little research has been conducted at this level.

Conceptual Framework

The conceptual framework for this study was based on the research of Vygotsky (1929), whose goal was to create a psychology that was theoretically and

methodologically equal to the task of investigating uniquely human characteristics (as cited in Gredler, 2009). Vygotsky believed that this psychology would fail as a discipline if it could not explain human behavior (as cited in Gredler, 2009). Vygotsky contended that an understanding of psychological signs and symbols has brought about a transformation of human consciousness by directing the study of the human mind and changing the process of thinking (as cited in Gredler, 2009). Vygotsky also contended that cultural diversity in symbols may lead to differences in the level of mental functions for human beings (as cited in Gredler, 2009). Vygotsky defined culture as "the particular social setting in which the child grows up" (as cited in Gredler, 2009, p. 443). Vygotsky concluded that the complexity of symbol use in a culture often establishes broad parameters for individual development (as cited in Gredler, 2009).

Vygotsky (1929) was also instrumental in developing the concept of the zone of proximal development. Vygotsky defined the zone of proximal development (ZPD) as "the domain of transitions that are accessible by the child" (as cited in Gredler, 2009, p. 337). This zone involves understanding the child's place on a continuum of learning so the teacher can develop a strategic plan to address his or her individual needs (as cited in Gredler, 2009). This understanding also directs how the child transitions from activity to activity and how learning occurs (as cited in Gredler, 2009). The determination of the appropriate level of instruction for cognitive development requires determining the new knowledge and skills that are about to emerge (as cited in Gredler, 2009). Vygotsky (1929) maintained that the actual level of development is the level at which the child can solve problems independently. Vygotsky believed that teachers can use formal and

informal assessments to determine where a child is on the learning continuum at a particular time and apply that information to instruction. Thus, the zone of proximal development represents learning readiness, Vygotsky argued, when a child has mastered one skill and is ready to move to the next level of that skill. This readiness to move to the next level requires some scaffolding of instruction from the teacher or another skilled peer (as cited in Gredler, 2009).

In relation to instruction, Vygotsky (1939) believed that both culture and education play important roles in the cognitive development of children and provide the foundation for determining instruction (as cited in Gredler, 2009). One assumption is that culture influences ways of thinking in relation to the use of language and symbols (as cited in Gredler, 2009). The second assumption is that instruction precedes and leads to cognitive development (as cited in Gredler, 2009). The implications for the classroom are several, because, according to Vygotsky, teachers should implement specific strategies to determine a child's readiness to develop particular cognitive processes, including structuring the learning task as a collaborative teacher-student activity, structuring the learning of subject-matter concepts, implementing instruction, and evaluating the results (as cited in Gredler, 2009). Vygotsky believed that the genesis for cognitive development and learning comes from adults and includes learner characteristics, cognitive processes, and the context for learning (as cited in Gredler, 2009). The social context for learning includes the historical developments that the child learns as a member of a particular culture and the nature of the child's social interactions with knowledgeable members of that culture (as cited in Gredler, 2009).

In relation to assessment, Vygotsky (1939) presented three critical concepts (as cited in Gredler, 2009). One concept involves the difference in thinking between naïve psychology and external regulation, which means that teachers need to assess students' understanding frequently when they present new situations and new material (as cited in Gredler, 2009). The second concept is the difference between pseudo-concepts and actual conceptual thinking (as cited in Gredler, 2009) Assessments need to focus on actual conceptual thinking. The third concept is the zone of proximal development, which requires that teachers identify the mental processes that represent cognitive development (as cited in Gredler, 2009). These processes, according to Vygotsky, include memory, perception, attention, and conceptual thinking (as cited in Gredler, 2009). Teachers identify these processes by assessing outcomes in order to determine the skills and concepts that students have not mastered (as cited in Gredler, 2009). These assessments help teachers to identify knowledge and skills that the student either possesses or lacks, which determines the instructional strategies that teachers will use.

Concerning the educational applications of his cultural-historical theory, Vygotsky (1929) believed that mastering reading, writing, and counting, and relying on those symbol systems to master cognitive tasks is the basis of cognitive development (as cited in Gredler, 2009). The meaning of various signs and symbols, however, differs across cultures, and therefore, Vygotsky's theory is important to modern societies as they attempt to understand the implications of a media based society that relies on visual signs and symbols and therefore only on elementary rather than higher level mental functions (as cited in Gredler, 2009).

In relation to scaffolding, Vygotsky (1934) recommended that learning tasks need to be structured as collaborative teacher-student activities that should be evaluated. Vygotsky also maintained that instruction involves three major tasks: (a) determining the appropriate level of instruction, (b) implementing the genetic law of cognitive development, and (c) developing students' verbal thinking, which is related to the concept of scaffolding (as cited in Gredler, 2009).

Vygotsky (1929) also believed that the assessment of a child's capabilities in determining the zone of proximal development includes the tasks that the child can partially complete or complete with extensive guidance (as cited in Gredler, 2009). Task completion is an indicator of the higher mental processes that are emerging. However, the concept of scaffolding, which Gredler (2009) noted is a more recent term, involves encouraging children to problem solve with another peer or an adult. Children need to stretch cognitively in order to understand new information, and to do that, they need the assistance of the teacher who helps them makes connections so the new skill or concept can be attained.

Vygotsky's concepts have also been articulated in current research. Fani and Ghaemi. (2013) explored the zone of proximal development in relation to teacher education programs and concluded that a deeper understanding of the theoretical basis for scaffolding is needed so that educators are able to effectively and creatively use the zone of proximal development in their work with students. In another study, Rezeaa and Azizi (2012) conducted a quasi-experimental study of 86 Grade 9 students in Iran who were learning English adverbs and found that students in the experimental group showed more

progress when teachers used the zone of proximal development to provide instruction. In a case study, McKenney and Voogt (2012) explored the use of the zone of proximal development in a technology rich classroom in the Netherlands and found that although scaffolding instruction is challenging, teacher use of technology contributes to improved teaching and learning. Benko (2012) examined scaffolding in relation to adolescent writing development and found that student writing skills improved when teachers scaffold instruction by providing good work samples as models, structuring lessons that integrate old and new learning, focusing on the content of student work, and stressing that the task is not the end goal of good writing. Mayer and Tucker (2010) described research-based practices that support high academic achievement for ethnic groups in middle and secondary schools, including close monitoring of students' academic and social growth, access to high quality curriculum, appropriate scaffolding to ensure academic success, academically oriented supportive peer groups, and opportunities for social and emotional growth. Mayer and Tucker defined appropriate scaffolding as creating a personalized learning environment where tutoring is offered as needed, class time is extended, and courses are designed to strengthen students' academic skills.

In summary, this single case study benefits from Vygotsky' research on cognitive development because he believed that teachers can help students attain advanced levels of cognitive development by supporting instruction and assessment to meet the individual learning needs of students. Within the RTI model, teachers need to design Tier 1 and Tier 2 reading interventions to help students attain higher levels of cognitive development, particularly in relation to reading comprehension, by implementing appropriate

interventions for these students. When teachers are able to accurately assess deficiencies in reading skills for individual students and are able to design or use effective interventions to improve these deficiencies, student reading comprehension skills improves.

Literature Review

In this literature review, studies are analyzed that provide a historical perspective on reading intervention research because understanding how reading interventions have evolved over time provides a better understanding of how current reading intervention practices emerged. Current intervention research about instructional and assessment practices in reading is also discussed as well as current research about the two types of RTI models that are frequently implemented in K-12 public schools as a result of the 2004 IDEIA legislation. In addition, current research is analyzed about the relationship of RTI to reading curriculum and state standards, particularly in terms of how teachers modify or adjust curriculum to meet the individual needs of students who are placed in Tier 1 and Tier 2 interventions. Research related to RTI and the specific instructional strategies that teachers use in Tier 1 and Tier 2 to improve students' reading skills is also presented. In the last section, research related to RTI and assessment is analyzed, particularly concerning how teachers use assessments for identification and placement of students and for progress monitoring within the tiers of the RTI model.

Early Reading Intervention Research

The idea of reading interventions has been around for a long time. In a review of the research literature, the development of remedial reading can be traced directly to the

evolution of RTI (citation). In this section, four meta-analyses of the research literature on reading intervention research are analyzed to demonstrate this historical perspective. This section concludes with a comparison and contrast of these studies and an analysis of their relevance to this study.

Harris study. Harris (1967) presented a historical perspective on remedial reading from 1926-1965. In the first decade (1915-1925), Harris noted that the concept of reading disabilities originated in a case study when Morgan, a British physician, produced a research report published by the Office of Research and Evaluation. Morgan used the term *congenital word-blindness* to describe a 14-year-old boy who seemed intelligent but did not learn to read. Harris also noted that Uhl published the first American study on remedial reading in 1916. Uhl (1916) administered silent and oral reading tests to all Grade 3-8 students in an elementary school and suggested remedial instruction for those students who lacked specific reading skills (as cited in Harris, 1967). In 1925, there was a study that included a description of reading deficiencies, diagnostic techniques, and suggestions for improving these deficiencies (as cited in Harris, 1967). These early educators, Harris noted, were concerned with developing tests to measure reading skills, and they also tried to establish causation for these reading difficulties.

In the second decade (1925-1935), Harris (1967) explained that researchers developed a battery of diagnostic tests that included the *Gates Reading Diagnostic Test* (1925), *Monroe's Diagnostic Reading Examination* (1927), and the *Durrell Analysis of Reading Difficulty* (1933). Monroe (1927) described severe reading disability cases and methods that teachers used to address these disabilities, including phonics with

kinesthetic reinforcement (as cited in Harris, 1967). Bond (1925) reported that studies focused on visual, auditory, readiness, and lateral dominance factors in relation to reading problems (as cited in Harris, 1967). Orton (1925) stressed a synthetic phonic or sound blending teaching method. In the 1930s, Harris also noted that reading clinics were developed. Harris' book, which was published in 1927, was considered the best textbook on remedial reading of that time period (as cited in Harris, 1967).

In the third decade (1936-1945), Harris (1967) contended that numerous books were published on remedial reading, but only one book addressed remedial reading in secondary schools. In the late 1930s, numerous remedial reading programs in public schools were developed (as cited in Harris, 1967). During this decade, the mental hygiene movement focused on personality maladjustment and the emotional state of the child as contributing factors to reading difficulties (as cited in Harris, 1967). Child guidance specialists used remedial teaching as an approach to improving student reading abilities. Buswell (1935) developed the first machine reading pacer, which included a motor-driven shutter that covered a page of print at a rate that could be controlled (as cited in Harris, 1967). Motion picture films were also developed that were used for reading practice by controlling the speed of word presentations (as cited in Harris, 1967). Taylor's (1936) Metron-O-Scope was also created, which exposed a third of the print at a controlled rate (as cited in Harris, 1967). Harris noted that eye movement practice was favored at this time to improve reading skills.

In the fourth decade (1946-1955), Harris (1967) stated that Robinson published emphasizing inappropriate teaching methods, neurological difficulties, and speech and

auditory difficulties, providing a pluralistic view on the causes of reading disabilities. In 1950, Hallgren published a monograph on the inheritance of specific dyslexia (as cited in Harris, 1967). In 1947, Kottmyer's published work described instructional strategies for teaching reading and diagnostic instruments used r to evaluate students' reading skills (as cited in Harris, 1967). This decade also saw the merger of two national reading organizations that became the International Reading Association. During this time, Harris (1967) contended that remedial reading was considered a form of non-interpretive, ego strengthening psychotherapy, which meant that personality deviations that could cause reading problems. In addition, remedial reading clinics, tutoring for non-readers, and speed reading expanded in addition to the significant growth of remedial reading teachers in both elementary and secondary schools (as cited in Harris, 1967). Students were still failing in reading, Harris noted, because teachers placed little emphasis on phonics.

In the fifth decade (1956-1965), Harris (1967) found that if students demonstrated reading difficulty, they were no longer considered lacking in intelligence. This emphasis led to the development of remedial reading facilities and improved developmental reading programs (as cited in Harris, 1967). Educators and researchers also emphasized phonics instruction (as cited in Harris, 1967). Numerous research studies on remedial reading were published in journals (as cited in Harris, 1967). A major shift occurred from psychodynamics, which was an emphasis on psychological reasons for reading disabilities, toward an emphasis on the physiological, neurological, and constitutional factors related to reading development (as cited in Harris, 1967). Researchers also began to consider environmental factors that influence reading development. Bender (1957)

attributed reading difficulties to a delayed development of certain brain centers. Other researchers emphasized Gestalt's perception theory in relation to reading development, which stressed whole-part relationships and failures in integration from one reading experience to another (as cited in Harris, 1967). Educators also increased the use of diagnostic tests such as the *Stanford-Binet and the Weschler Intelligence Scales*, the *Illinois Test of Psycholinguistic Abilities*, the *Frostig Developmental Test of Visual Perception*, and the *Wepman Auditory Discrimination Test* (as cited in Harris, 1967). New teaching methods were tried that included perceptual training, programmed materials and tutoring, talking typewriters, and specific phonics systems. In this decade, Harris noted that remedial reading became accepted as an aspect of special education with funding designated specifically for reading teachers. In 1965, the Elementary and Secondary Education Act provided funding for disadvantaged children to receive remedial reading services (as cited in Harris, 1967). This decade ended with recognition by the public and the government that remedial reading is a necessary special service and trained teachers are needed to meet the needs of struggling readers.

First Solis et al. study. In a similar but more current synthesis, Solis et al. (2012) analyzed studies of reading comprehension interventions for middle school students with learning disabilities that were conducted between 1979 and 2009. Solis et al. noted that the majority of study treatments in reading comprehension interventions included instructional strategies related to the main idea or to summarization. Solis et al. also noted that a major finding in this meta-analysis was that teachers use strategies such as identifying the main idea and linking these ideas across paragraphs to create summaries

that have strong context validity, which are often included in state reading assessments. These studies also indicated that teachers use several strategies to help students summarize, which includes sequencing, self-questioning skills, and graphic organizers. Self-monitoring tools such as checklists or a prompt card are also useful. Solis et al. cited a study by Kamil et al. (2008) in which they recommended direct and explicit instruction for reading comprehension, greater emphasis on vocabulary instruction, extended discussion of text meaning and interpretation, and consideration of student motivation and engagement as a means for improving reading comprehension for students in Grades 4-12.

Edmonds et al. study. In more current research, Edmonds et al. (2009) presented a synthesis of reading intervention studies conducted between 1994 and 2004. They found that the majority of these studies were conducted at the elementary level, and very few studies were conducted at the secondary level, which has increased the achievement gap between older students with reading disabilities and their peers who do not have reading disabilities (as cited in Edmonds et al., 2009). These studies also revealed that the ultimate goal of reading instruction at the secondary level is comprehension or determining meaning from text (as cited in Edmonds et al., 2009). In addition, Edmonds et al. noted that these studies revealed that reading comprehension can break down when students have problems with one or more of the following: (a) decoding words, including structural analysis; (b) reading text with adequate speed and accuracy; (c) understanding the meanings of words; (d) relating content to prior knowledge; (e) applying comprehension strategies; and (f) monitoring understanding.

In their meta-analysis, Edmonds et al. (2009) also found that researchers noted many of the instructional practices suggested for poor readers were derived from observing, questioning, and asking good and poor readers to "think aloud" while they read (Dole, Duffy, Roehler, & Pearon, 1991; Heilman, Blair, & Rupley, 1998; Jimenez, Garcia, & Pearson, 1995, 1996). Previous syntheses, as cited by Edmonds et al., have identified critical intervention elements for effective reading instruction for students with disabilities across grade levels such as the use of explicit strategy instruction, such as the use of graphic organizers, identification of main ideas within text, decoding strategies, word study with fluency, and fluency with comprehension. (Gersten, Fuchs, Williams, & Baker, 2001; Mastropieri et al.,1996; Swanson, 1999).

This meta-analysis also revealed that students with learning disabilities improve their comprehension when provided with a targeted reading intervention in comprehension, multiple reading components such as fluency, comprehension and word study, or word reading strategies (as cited in Edmonds et al., 2009). When students reach the upper elementary grades, Kintsch and Kintsch (2004) found that other factors, such as background knowledge, word knowledge, and use of specific reading strategies, contribute to comprehension. Alinder et al. (2001) also found that instruction focused on reading fluency showed that students do not always improve in reading comprehension. These results support other research on the relationship between comprehension and fluency for older students (as cited in Alinder, 2001). Although fluency instruction improved the processing skills that facilitate comprehension, Kuhn and Stahl (2003) found that few fluency interventions fostered better general comprehension.

The findings from this synthesis of 20 years of research on reading interventions from 1994 to 2004 revealed that reading instruction should target comprehension skills. Edmonds et al. (2009) suggested that older struggling readers benefit from explicit comprehension strategy instruction, which includes modeling and thinking aloud, how to self-question and reflect during and after reading, and engaging students to become actively involved in monitoring their understanding and processing text meaning. This instruction also includes collaboration among students as they read and construct meaning (Beck & McKeown, 2006; Beck et al. 1997). In addition, Edmonds et al. found that comprehension practices used to address narrative text comprehension have a lower impact on reading expository text for older struggling readers.

Second Solis et al. study. Solis et al. (2014) also examined longitudinal studies (2010-2012) of adolescents with reading disabilities and poor reading comprehension. Solis et al. found that little is known about interventions that teachers use with students in the middle grades who have already exhibited reading failure. Solis et al. also found that continued reading interventions for students with reading difficulties go well beyond third grade, especially for students with severe reading difficulties. The findings confirm that students in Grades 6-8 will continue to demonstrate reading difficulties if they are not remediated. Solis et al. also found that it does not matter whether or not teachers provide instruction for students in small groups or moderately small groups and students receiving individualized instruction do not benefit much more than students receiving standardized instruction in general education classes. Those students who struggle with language and knowledge skills, Solis et al. noted, will have difficulty making up the

difference with a 50 minute reading intervention. Students will require intensive interventions within a school-wide practice of providing text-based and vocabulary-based curriculum.

In summary, these four studies provide a history of remedial reading that evolved into the RTI model that the United States Congress mandated for all public schools in 2004. Harris (1967) traced the history of remedial reading from 1926-1965, which revealed paradigm shifts, starting with the idea that students have trouble reading because they suffer from a physical disability and ending with the idea that reading problems may not be due to physical disabilities but to environmental factors such as poor home conditions and lack of parental support. In contrast, Solis et al. (2012) reviewed studies that supported implicit and explicit instruction in reading with an emphasis on vocabulary development and that moved away from the separation of students with reading disabilities for instruction to the inclusion of these students within the regular education classroom. Solis et al. (2012) and Edmonds et al. (2009) reviewed studies related to reading comprehension interventions targeted at individual students. The use of interventions rather than remedial reading techniques, Edmonds et al. noted, requires teachers to make data driven decisions about individual students. In contrast, Solis et al. (2014), whose meta-analysis focused on studies of adolescents with learning disabilities and poor reading comprehension, found that struggling readers show improvement in reading if teachers attempt to meet their individual needs through RTI. Solis et al. also found that teachers need to use research-based assessments when making decisions about reading interventions for students with reading difficulties. Thus, this historical

perspective demonstrates that reading instruction has changed over the past century from an emphasis on reading remediation to reading interventions where students remain in the classroom environment and classroom teachers make instructional decisions based on assessment data. This historical perspective is important to this study because educators have shifted their thinking about students who have been identified with reading disabilities. In the past, these students were considered to have medical issues, but now educators know that reading disabilities can be remediated with appropriate interventions.

Current Reading Intervention Research

In this literature review, significant research was found about reading interventions, particularly in relation to students identified with reading disabilities. These studies about reading interventions are current, but they were not necessarily conducted in relation to a specific RTI model of instruction. This section concludes with a comparison of these studies and an analysis of the relevance of this research to this study.

Research on reading interventions for upper elementary and middle school readers is mixed. Some researchers have found that on assessments of near transfer, such as curriculum-based measurements, students make significant gains in specific reading skills such as word identification or in the use of specific reading comprehension strategies (Jitendra, Hoppes, & Xin, 2000; Lovett, Warren-Chaplin, Ransby, & Borden, 1990, as cited in Flynn, Zheng, & Swanson, 2012). Other researchers have found that on measures of far transfer students do not demonstrate high levels of growth (Bhat, Griffin & Sindelar, 2003; Boyle, 1996; Calhoun, 2005, as cited in Flynn, Zheng, & Swanson,

2012). On a transfer taxonomy, far transfer is related to memory, reasoning, dual task performance, and other complex skills. In the 10 studies that Flynn et al. reviewed about middle school students with reading disabilities, they found that reading improvement was small to moderate. Recent research on upper elementary and middle school students indicates lower effects on norm-referenced measures of reading ability than on measures researchers developed (Flynn et al. 2012; Edmonds et al., 2009; Scammacca et al., 2007).

In a meta-analysis of the literature of intervention research about instructing older readers, Flynn et al. (2012) defined older readers as upper elementary and middle school students identified with reading disabilities. The studies that Flynn et al. reviewed were limited to pre-test and post-test control group designs. They also reduced the studies to include only students in Grades 5-9 who received an experimental reading intervention, which narrowed their search to 50 studies. Finally, the search was reduced to those studies that focused only on students with reading disabilities. Flynn et al. found that reading intervention strategies teachers use at the elementary level are not always successful at the upper elementary and middle school levels. Flynn et al. also found that upper elementary and middle school students identified with reading disabilities showed little gains on a norm-referenced measure after participating in a reading intervention. Flynn et al. recommended interventions for struggling older readers, even if only small gains are achieved. Flynn et al. also recommended that vocabulary and reading comprehension strategies should be emphasized at the middle and high school levels, and phonics and phonemic awareness strategies should continue to be emphasized at the elementary level.

In similar research, Connor et al. (2014) synthesized the findings of the Institute of Education Sciences (IES) in relation to improving outcomes for students with or at risk for reading disabilities. These 15 findings are displayed in Table 1 below.

Table 1

Improving outcomes for students with or at risk for reading disabilities

Number	*Finding*
Finding 1	Screening all students using a universal screening tool at the beginning of the school year is a valid and efficient way to identify students who are at risk for poor reading outcomes
Finding 2	Using assessments to monitor student progress is a valid and efficient way to guide the decision making process in to determine if an intervention is working
Finding 3	Assessments for English language learners indicate that reading comprehension can be assessed without overburdening word reading and oral language skills
Finding 4	Assessment accommodations for students with disabilities do not modify the outcomes measured and therefore represent a valid measure of their reading performance
Finding 5	Several basic cognitive processes, including working memory and abstract inferential reasoning, are critical for students' reading success
Finding 6	Malleable linguistic processes, such as oral language skills and vocabulary, contribute to improving students' reading performance
Finding 7	Although the same sets of cognitive and linguistic skills are involved in learning to read, children bring unique constellations of these skills to the classroom with important implications for instruction
Finding 8	Increasing the intensity of interventions in kindergarten and first grade may prevent reading difficulties for many students
Finding 9	Fluency interventions that focus on repeated readings, reading a wide variety of text, and having opportunities to practice reading in the classroom may improve students' fluency and comprehension
Finding 10	Language outcomes for many preschool children at risk for language disabilities improve if they are provided intensive opportunities to hear and use complex oral language
Finding 11	Peer-assisted or collaborative learning is a promising method of increasing the intensity of instruction for students for improving their reading outcomes
Finding 12	Interventions that are differentiated to target an individual student's profile of component skills improves reading development
Finding 13	What researchers are beginning to understand about how typically developing readers

	learn to read also appears to hold for students with low incidence disabilities, with mild and moderate intellectual disabilities, including students with mild and moderate intellectual disabilities and students who are deaf or hard of hearing
Finding 14	Teachers' delivery of complex, evidence-based instruction and interventions can be improved by developing their specialized knowledge and supporting consistent long-term implementation of evidence-based instructional practices
Finding 15	Combining multiple professional development strategies, including coaching, linking student assessment data to instruction, using technology, and participating in communities of practice, supports teachers' learning and implementation of research-based reading instruction

Note. From "Improving reading outcomes for students with or at risk for reading disabilities: A synthesis of the contributions for the institute of education sciences research centers" by C. Connor, P. Alberto, D. Compton, R. O'Connor (2014) *National Center for Special Education Research (2014).*

Connor et al. (2014) recommended that future research should document the role of alphabetic knowledge in literacy development, particularly for students without speech perception abilities. Results of the preschool studies are encouraging, Connor et al. noted, and suggest that educators may be able to apply universal screening to the assessment of reading readiness skills for preschool children. Connor et al. also noted that educators and researchers involved in IES projects have evaluated the psychometrics of assessments used for reading intervention and explored the predictive utility of various progress monitoring measures that can be used to accurately judge students' responses to research-based interventions. Educators and researchers involved in IES projects are also invested in the development and evaluation of alternative reading assessments for English language learners, which represents an important line of inquiry at the early stages of their reading development. Reading tests, Connor et al. recommended, need to be adapted to accommodate students with a range of disabilities and to increase the accessibility of standardized measures of reading for all students.

In another significant study about reading interventions, Kennedy and Deshler (2010) examined research related to literacy instruction, technology, and students with learning disabilities. They found that if teachers use assistive technology in the classroom as part of reading interventions, theory needs to support this use. Kennedy and Deshler presented a conceptual framework that includes four theoretical components: (a) the deictic, logical relationship between technology and literacy; (b) the technological and pedagogical content knowledge; (c) the cognitive theory of multimedia learning; and (d) the active theory of education. Using this framework, Kennedy and Deshler recommended that teachers select or design multimedia materials for literacy instruction that logically extend pedagogy and build reading skills for individual students. They also recommended that teachers select multimedia materials that foster active learning, including sound and image interactivities, and that they incorporate validated theories into multimedia literacy instruction. In addition, Kennedy and Deshler recommended that teachers use evidence-based interventions such as RTI that help students increase literacy skills. They also recommended that when choosing multi-media materials, teachers consider the cognitive levels of the learners. Kennedy and Deshler concluded that technology is one way of making RTI instruction relevant to the students.

In another important reading intervention study, Reynolds, Wheldall, and Madelaine (2012) reviewed recent research on the efficacy of reading interventions for struggling readers at the elementary school level. They presented findings from the What Works Clearinghouse Review in relation to interventions such as phonemic sequencing, peer-assisted learning strategies, Reading Recovery, Start Making a Reader Today, and

Success for All. Reynolds et al. found that very few reading programs result in improved reading skills for struggling students. They also found that after one year, students who participated in reading interventions showed significant progress in phonemic awareness and phonics. Reynolds et al. noted that even though Slavin et al. (2009) recommended programs such as Reading Recovery, educators need to make sure that these types of reading programs actually meet the learning needs of struggling students in the early grades. Reynolds et al. also noted that Slavin described six approaches that teachers use to meet the learning needs of poor readers in Grades K-5, which include (a) individual tutoring by teachers, (b) individual tutoring by paraprofessionals and volunteers, (c) small group instruction, (d) instructional process approaches implemented in the classroom with and without tutoring, and (e) computer-assisted instruction. In addition, Reynolds et al. cited research that Hattie (2009) conducted about how to teach reading to young students. Like Slavin and Reynolds et al., Hattie found Reading Recovery to be an effective reading intervention. In contrast to the whole language approach, Hattie recommended that phonics, repeated reading, and comprehension strategies in reading should be part of an early reading program and that instruction needs to be explicit and direct. Hattie also recommended that auditory perceptual skills need to be considered when teachers provide instruction in reading. Reynolds et al. concluded from this extensive review of the research literature on reading interventions that phonological awareness is a critical part of any reading program, and of all of the programs that were evaluated, Reading Recovery was found to be the most effective intervention for struggling early readers.

In summary, significant current research has been conducted on reading interventions independent of the RTI model. Flynn et al. (2012) found that reading intervention strategies for elementary students need to focus on phonemic awareness, while Connor et al. found that reading intervention strategies for high school students need to focus on vocabulary and comprehension. Reynolds et al. (2010) and Kennedy and Deshler (2010) investigated the use of computers to improve reading skills through peer and teacher tutoring and found that technology can be used to make instruction relevant for students. All of these researchers agreed, however, that teachers need to implement evidence-based interventions that include an emphasis on phonics, reading comprehension, repeated reading, small group instruction, tutoring, and consideration of the cognitive levels of individual students. Reynolds also found that Reading Recovery was most effective for those students who do not respond to classroom instruction. All studies, however, revealed that educators need to be careful when choosing materials for reading interventions, including assistive technology, because teachers need to provide intervention instruction that meets the individual learning needs of students. It is clear from this review of research about reading interventions that teachers have numerous choices to make when deciding on the curriculum, instructional practices, and assessments they will use in implementing effective reading interventions.

RTI Models

RTI models are designed to help teachers provide a reasonable and purposeful approach to using assessment information to improve the effectiveness, efficiency, and relevance of their instructional practices for all students (Fuchs, Fuchs, & Stecker, 2010;

Sugai et al., 2010; Vaughn & Fletcher, 2010). A review of the literature indicates that educators often use two basic RTI models: the standard protocol model and the problem-solving model. These models share the same basic requirements: (a) use of a universal screener to diagnose the reasons for any problems; (b) development of an intervention plan and selection of research-based interventions to address the specific learning problems; (c) implementation of the plan and monitoring of the plan for positive effects; and (d) adjustment of the intervention plans in response to the progress monitoring and diagnostic data that is collected (Searle, 2010).

In this section, a discussion of the strengths and weaknesses of each model is included, based on research findings. The conclusion includes a comparison of these models in terms of their effectiveness for improving student learning and an analysis of the relevance of this research to this study.

Standard protocol model. In a practitioner's guide to implementing RTI, Mellard and Johnson (2008) noted that the standard protocol model is prescriptive in nature, which means that specific directions in relation to how to implement reading interventions are provided. Students identified with similar reading difficulties are administered specific research-based interventions. Data are collected and monitored, but the student remains in the regular classroom setting where the teacher provides the intervention. The intervention is discontinued when the student has mastered the specific skill.

Several researchers have conducted studies in relation to this RTI model. Gilbert et al. (2013) explored the efficacy of a RTI prevention model for struggling readers in

Grade 1 and found that the standard protocol model attributes positive student outcomes to particular types of instructional skills that teachers emphasize such as word attack, word identification, sight-word efficiency, and phonemic-word efficiency. In a discussion about what principals need to know about RTI, Searle (2010) contended that the standard protocol model supports effective progress monitoring because the focus is on one intervention for a given skill deficit.

In a related study, Carney and Stiefel (2008) examined the long-term results of a problem-solving approach to RTI and found that the standard protocol model requires the use of the same treatment for all students with similar problems. They noted that the advantages of the standard protocol model are that (a) training for all teachers to implement one intervention is easier than training teachers to implement different interventions individually; (b) no decision-making process is required regarding what interventions to implement; (c) it is easy to assess the accuracy of implementation; (d) a large number of students can participate in the treatment protocol; and (e) group data can be analyzed according to certain baseline criteria.

Lang et al. (2009) explored the effectiveness of reading interventions for high school students over a 3year period in seven Florida high schools, using a pre-test/post-test randomized control design. The three interventions included Read180, Reading Intervention through Strategy Enhancement (RISE), and the School Offered Accelerated Reading (SOAR). Lang et al. also designed a control group where no interventions were conducted. The Florida state assessment in reading was used to identify students who struggled with reading. Lang et al. found that at risk students who participated in Read

180 and RISE performed better than high risk students who participated in SOAR. However, Read 180 produced the smallest reading gains for high-risk students and the largest gains for moderate-risk students. Lang et al. also found that Read 180 effectively addressed the needs of students reading above the fourth grade level. Lang et al. also noted that Read 180 is primarily focused on building fluency and reading comprehension and is successful for students who need more instruction and support in improving advanced comprehension skills. SOAR produced the best overall growth for students in Grades 8 and 9. Lang et al. concluded that the majority of students who participated in these interventions showed some improvement in reading skills.

Problem solving model. The problem-solving model, according to Searle (2010) who developed an RTI guide for school leaders, is composed of a team of experts who customize intervention plans to suit individual learners' needs. The team is composed of such members as a principal, social worker, nurse, librarian, and a teacher from each discipline. The team gathers and analyzes student performance data and develops a cause for the problem and determines the research-based instructional strategies that teachers need to use to address the problem. These interventions are monitored regularly by the person administering the interventions, usually the teacher or reading specialist to determine if the desired outcomes are achieved. Constant review is required. Two advantages of using the problem solving model, Searle noted, are that educators have increased flexibility to implement the most appropriate intervention for individual students' needs and there is stronger support from staff resulting from their direct input.

In an examination of the long-term results of a problem-solving approach to RTI, Carney and Stiefel (2008) noted that the problem-solving model refers to interventions that use an inductive approach. Interventions are determined by evaluating student responsiveness to instruction. Specific interventions are developed based on preliminary data concerning a particular students' behavior and performance, and the intervention is conducted through a group process that requires frequent feedback on the effectiveness of the intervention and modifications that are dependent on that feedback. The premise behind this approach is that discovering and documenting effective research-based intervention methods is a valid goal. Carney and Stiefl found that school district educators struggle with the following: (a) the process of moving students from Tier 2 to Tier 3 interventions, (b) how to provide instruction for non-responders, and (c) when a special education referral needs to happen. Carney and Stiefl recommended that teachers who use the problem solving model need time to identify, learn, and implement a variety of interventions that meet the unique needs of individual students who are at risk for academic failure.

In related research, Windram, Bollman, and Johnson (2012) examined how RTI works in secondary schools in terms of building a framework for student success. Windram et al. described a system for administering a RTI problem-solving model within a secondary school. Windram et al. noted that quality implementation of RTI includes assessment practices and instructional options designed to meet the needs of all students, as well as systems for ongoing decision making, which are data driven to meet the needs of individual students. They suggested the following steps for implementing a problem-

solving RTI model in secondary schools: (a) establish a commitment to educate all students through ongoing consensus building, (b) establish a RTI building-based leadership team, (c) implement the assessment, (d) implement instruction based on data, and (e) help educators at each school to understand a problem-solving approach and implement a problem-solving process. Windram et al. concluded that the effectiveness of the problem-solving model varied according to different sites, but fidelity of implementation improves student success.

Many school districts in the United States have used the problem-solving model with successful results (Mellard & Johnson, 2008; Searle, 2010). Educators who implement this model use data to identify target groups in need of interventions, to implement individual interventions for struggling students, and to manage and evaluate data in order to effectively move students from tier to tier. One of the disadvantages of the problem-solving model is the flexibility of the process, which often varies according to the teacher and may not address the actual skill deficit of the individual student (Shapiro, 2009). In the problem-solving approach, however, teachers also make more accurate judgments about what is causing the learning problem and how best to resolve it (Shapiro, 2009). Successful implementation of the problem-solving model depends on the procedures that educators use, the collection of data, the fidelity of the implementation process, and a clear understanding of the staff's responsibility in implementing RTI (Shapiro, 2009).

Selection factors. Several factors, however, need to be considered when educators decide which model to use in a school district. One of these factors is

technology. Smith and Okolo (2010) explored advancements in technology-based solutions for students with learning disabilities and found that effective practices in RTI include common instructional interventions that are in place in the classroom and that are readily supported by the use of technology-based tools. They also found that technology plays a role in helping students transfer skills to new tasks and settings. In a discussion concerning the knowledge of secondary school administrators about RTI, King, Lemons, and Hill (2012) found that most secondary school administrators struggle to provide the technology that teachers need to document progress monitoring. Smith and Okolo (2010) explored the potential role of technology in providing instruction in a multi-tiered model of special education services and found that very few researchers have investigated the degree to which applications of technology could be considered evidence-based practices. Dulaney (2012) investigated a middle school's RTI journey in relation to building systemic processes of facilitation, collaboration, and implementation and found that school leaders need to take time to build consensus and understand the systemic processes involved with implementation. Leaders also need to identify available resources to sustain the RTI infrastructure. Lovett et al. (2012) evaluated the efficacy of remediation for struggling readers in a quasi-experimental study that included 19 high schools with 197 struggling readers in the Toronto Catholic School District in Canada. Lovett et al. found that after 60 to 70 hours of remediation, struggling readers demonstrated significant gains in work attack skills, word reading, passage comprehension, letter-sound recognition, and multisyllabic word identification. In this study, technology was often used as an intervention with these students.

Another factor that educators need to consider when selecting a RTI model is the relationship of the model to special education students. In a discussion of preventing and remediating academic difficulties for students, Fletcher and Vaughn (2009) suggested that these two RTI models provide a framework for implementing interventions for both general education and special education students. In a related study, Ehren, Deshler, and Graner (2010) recommended that teachers use a content literacy curriculum as a framework for conceptualizing and implementing a problem-solving approach to RTI at the secondary level. In a case study, Perelas, Omdal, and Baldwin (2009) used a problem-solving consultation RTI model in a public elementary school with twice-exceptional learners in Colorado and found that student achievement in reading for students who are identified as both gifted and talented and learning disabled improved. If general education and special education teachers collaborate in the implementation of RTI, Searle (2010) contended, the learning needs of students are often resolved.

In deciding which RTI model is appropriate for a school district, educators also need to consider the factor of professional development. Dulaney (2013) explored how to build systematic processes of facilitation, collaboration, and implementation at the middle school level when implementing RTI and recommended that systematic assessment of student performance is essential prior to implementing interventions and that progress monitoring should be based on individual student's learning needs. Professional development should be focused on curriculum differentiation. Dulaney also recommended school-wide acknowledgement of successes as well as challenges while implementing a RTI model. King, Lemons, and Hill (2012) discussed considerations for

administrators when implementing RTI at the secondary school level. King et al. concluded that the lack of resources available for implementation of RTI and the lack of research about RTI at the secondary school level are two barriers teachers and administrators face in implementing successful interventions for struggling students. Amendum and Fitzgerald (2013) explored how reading instruction and related professional development impact student reading growth in high poverty settings. They found that students who are provided with strong instructional support from teachers demonstrate significant growth in reading. They also found that professional development in reading for teachers is worthwhile because a collaborative effort among teachers is needed in order to yield the best results for struggling readers at the middle and high school levels. Bamberger and Cahill (2012) investigated instructional design at the middle school level in relation to scaffolding strategies. They found that in order for teachers to use scaffolding strategies to encourage student creativity, hands-on experiences, and modeling, additional professional development is needed. In a review of RTI progress across the United States, Berkeley, Bender, Peaster, and Saunders (2009) found that educators in some states use university resources and state resource centers to meet their professional development needs for RTI.

In conclusion, the standard protocol model offers efficient training focused on one intervention plan for a given subject. This model is highly standardized, allowing for ease of monitoring and providing a predetermined intervention that reduces team meeting time. In contrast, the problem-solving model provides increased flexibility and adaptability for educators to implement the most appropriate intervention strategies to

meet individual student needs. A direct relationship also exists between professional development and understanding of the RTI process that can lead to more successful implementation of RTI and to improvement in student achievement. Therefore, educators need to consider selecting an RTI model in relation to the important factors of technology, special education, and professional development.

Reading Intervention Curricula

Teachers who provide interventions to students at risk for failure in reading are often able to make many choices in relation to the curriculum that they use in these reading interventions if the materials are aligned with the state reading standards. In this section, research related to curricular programs and resources that educators have used in implementing RTI is reviewed and analyzed. This section concludes with an analysis of these research studies in terms of their relevance to this study.

Several independent studies have been conducted about the effectiveness of Read 180 as an intervention curriculum at the secondary school level. Parker et al. (2013) conducted a study in a South Texas urban school district using a pre- and post-test design to compare the effectiveness of Read 180 and Voyager Journey III, which were both used as reading intervention curriculum. The Read 180 computer-based curricular program is designed to use informational text to improve skills related to reading comprehension, spelling, oral reading fluency, vocabulary, word choice, and writing for struggling high school readers at their appropriate lexile reading level. Students complete the *Scholastic Reading Inventory* (SRI) to determine placement level within the Read 180 program. Teachers used the *Texas Assessment of Knowledge and Skills* (TAKS) and the SRI as pre-

and post-test assessments. Parker et al. found that students demonstrated higher reading scores on the TAKS state assessment than on the SRI following participation in a reading intervention. However, the TAKS is a criterion-based assessment whereas the SRI is a norm-referenced assessment. Parker et al. also found that teacher fidelity of Read 180 implementation impacted the success of the intervention.

Other researchers have also examined curricular interventions in reading that rely on technology to provide individualized instruction. Cheung et al. (2013) conducted an examination of educational technology programs over a 20-year period in a study that included 7,000 students in Grades 1-6 who demonstrated low reading scores. These students participated in curricular intervention programs such as Read, Write, and Type, the Lindamood Phoneme Sequence Program, Read 180, Read About, and Fast For Word. Cheung et al. noted that Read 180 is designed to improve reading efficiency, comprehension, vocabulary, and oral reading fluency for students at risk in reading. Cheung et al. also noted that students in this technology-assisted intervention participate in small group settings with 15 students or less for 90 minutes each day. Each lesson consists of 20 minutes of whole class instruction followed by three 20-minute rotating activities in groups of five, modeled or independent reading, and small-group instruction with the teacher. Cheung et al. found that Read 180 is successful as a reading intervention at the secondary level because student achievement in reading improves.

In addition to technology-assisted interventions in reading that use a prescribed curriculum, the national standards movement has also dictated the curriculum content for reading interventions in K-12 public schools. Roskos and Neuman (2013) examined the

Common Core State Standards (CCSS) in relation to the reading curriculum at two levels, Grades K-5 and Grades 6-12. They maintained that the CCSS are a set of standards upon which reading programs and reading interventions are built, including the specifications that inform curriculum and instructional delivery. The standards state what students are expected to learn, not how they are expected to learn. The reading standards are designed to "establish a staircase of increasing complexity" that quickens the pace of reading development (NGA Center & CCSSO, 2010b as cited in Roskos & Neumann, 2013, p.471). Roskos and Neuman recommended that teachers consider changing their classroom environment to meet the instructional goals of the CCSS by providing sufficient curricular materials and by creating a participatory classroom environment for students. They also recommended that teachers need to (a) know the reading standards specific to their grade band and make them a routine in instructional planning; (b) study CCSS 10, which involves the range, quality, and complexity of student reading, the review and use of text exemplars, and sample performance tasks for specific grade levels; (c) consider the range, quality, and complexity of student reading and then review and use text exemplars and sample performance tasks; (d) collaborate with colleagues to align and implement reading standards; (e) set a challenging pace for student to become proficient readers; and (f) take every opportunity to attend CCSS professional development activities. Roskos and Neuman concluded that teachers need to align their reading programs and reading interventions with the CCSS in reading in order to develop more demanding readers.

Ehren, Deshler, and Graner (2010) explored using a content literacy continuum as a curricular and instructional framework for implementing RTI in secondary schools. Ehren et al. described this literacy continuum as a school-wide approach to address the content literacy needs of students in middle, junior, and senior high schools. In this continuum, content is organized and presented in relation to specific concepts and skills. Level 1 includes enhanced content instruction that addresses the mastery of critical content in academic subjects for all students by helping them use the listening, speaking, reading, and writing skills necessary to manipulate subject matter. Level 2 includes embedded strategy instruction focusing on student use of content literacy strategies to acquire, manipulate, and demonstrate knowledge in specific subjects as an integrated part of course learning for all students. Level 3 involves intensive strategy instruction intended for students who need more intensive strategy instruction to master independent use of content literacy strategies. Level 4 includes intensive basic skill instruction that targets foundational language and literacy skills that students, who are usually below the fourth-grade reading level, must acquire to be successful learners. Level 5 includes therapeutic intervention that involves intensive therapy in language underpinnings for students whose language impairment thwarts learning. Ehren et al. found that implementation of a content literacy continuum provides an experiential base for approaching a school-wide literacy initiative within an RTI frame of reference at the secondary school level. Ehren et al. contended that the content literacy continuum helps educators to respond to the specific literacy skills that adolescents need to master. Both the content literacy continuum and RTI share a focus on strong core instruction with

opportunities for intervention when needed. Both models support the use of scientifically-based practices in intervention curriculum and instruction.

Wixson and Lipson (2012) examined the relationship between literacy and language for K-12 students in the context of the CCSS and RTI. They noted that RTI is both an alternative approach to identifying students as learning disabled and a strategy for reducing the number of students who develop serious learning difficulties. Wixson and Lipson also noted that students who meet the CCSS in English language arts are able to (a) demonstrate independence, (b) build strong content knowledge, (c) respond to the varying demands of audience, task, purpose, and discipline, (d) comprehend as well as critique, (e) value evidence, (f) use technology and digital media, and (g) understand other perspectives and cultures. Wixson and Lipson contended that for decades educators emphasized phonemic awareness, phonics, fluency, vocabulary, and comprehension. The CCSS in English language arts emphasize phonemic awareness, phonics, comprehension, and fluency as foundational skills at the elementary level, and they emphasize text complexity connected to reading comprehension and academic vocabulary, with special emphasis on literary nonfiction, at the secondary level. Wixson and Lipson concluded that reading interventions need to address the entire range of knowledge and skills included in the literacy and language curricula.

In conclusion, reading intervention curriculum involves specific concepts and skills that students who are at risk for failure in reading must master. These skills and concepts are generally aligned to state reading standards or to the more recently released Common Core State Standards. Parker (2013) found that high school teachers often use

Read 180 to supplement the reading curriculum for struggling students who are placed in Tier 1 or Tier 2 interventions. Cheung et al. (2013) also found that Read 180 is a successful reading intervention at the secondary level. Educators in public school districts across the United States have aligned the new CCSS in English language arts with Tier 1 and Tier 2 interventions in reading. In supporting research, Roskos and Neuman (2013) examined the CCSS in relation to teaching reading in Grades K-5 and Grades 6-12 and recommended that teachers align the CCSS with the reading intervention curriculum. Similarly, Wixson and Lipson (2012) also examined the relationship between literacy and language in the context of CCCS and RTI and found teachers need to first understand the skills and concepts in the CCCS and align them with curricular and instructional practices when implementing reading interventions. Ehren et al. (2010) described a content literacy continuum as a framework for implementing RTI in secondary schools and also concluded that research-based practices need to be used when aligning reading interventions with the CCSS.

Reading Intervention Instruction

Considerable research has been conducted in the past two decades regarding the instructional practices that elementary and middle school teachers use to provide interventions for students who are not proficient in reading. In this section, that research is described. This section concludes with an analysis of these studies in relation to their significance to this study.

Pretorious and Currin (2010) examined the effects of a reading intervention on reading in the home and on school language. They conducted a three-year study in a

multi-lingual high poverty primary school in South Africa involving Grade 7 students who were struggling with reading. The reading intervention was a Tier 2 intervention that included (a) the building of good reading resources; (b) the building of teacher capacity; (c) building of parent capacity, and (d) the building of a family literacy component. Pretorious and Currin found that when books are made available to students who struggle with reading both at school and at home, their reading skills improve. These students need individual attention and time on task as they move from middle school to high school.

In another study about reading interventions, Vaughn et al. (2010) examined the impact of a Tier 2 reading intervention for seven middle school students with reading difficulties in two large urban cities in the southwestern region of the United States. Teachers used the Texas Assessment of Knowledge and Skills (TAKS) to identify these struggling readers. Teachers were also given 60 hours of professional development in relation to providing instruction in note-taking, use of graphic organizers, and identifying and asking different types of questions. Social studies lessons were used for comprehension and reading fluency. The Tier 2 reading intervention included three phases: (a) Phase 1, which lasted 7-8 weeks and focused on word study and fluency; (b) Phase 2, which lasted for 17-18 weeks and focused on Phase 1 skills as well as social studies lessons for three days and novel reading and discussion for the other two days; and (c) Phase 3, which lasted for 8-10 weeks and focused on reading comprehension and vocabulary with additional strategies to increase student understanding of text. Vaughn et

al. found that students who participated in these Tier 2 interventions improved skills in word attack, spelling, comprehension, and phonemic decoding.

Vaughn and Fletcher (2012) examined the use of RTI with 1867 students identified with reading difficulties at seven different middle schools. They found that a modified RTI model is the best context for supporting students with reading disabilities and enhancing reading comprehension and vocabulary for all students. Vaughn and Fletcher noted that teachers used both criterion and norm-referenced measures to establish baseline data for determining the current reading abilities of students. The first step in this modified RTI model was to provide Tier 1 interventions as a school-wide effort for improving vocabulary and reading comprehension instruction across content areas through ongoing professional development that included coaching for content area teachers. The second step was to provide Tier 2 interventions in the form of remediation classes to improve comprehension and vocabulary development for students who were two or more grades below grade-level reading expectations but did not demonstrate persistent reading disabilities. The third step was to provide a Tier 3 intervention for students with persistent reading disabilities that included small group instruction a minimum of 50 minutes per day. Vaughn and Fletcher also recommended that students with significant reading disabilities require ongoing reading interventions during the summer.

In other related research, Benboom and McMaster (2013) compared lower-resourced and higher-resourced Tier 2 reading interventions for Grade 10 students at two rural high schools in the Midwest. The purpose of this study was to examine the

effectiveness of a Tier 2 intervention focused on improving reading fluency and comprehension by comparing the effects of a teacher-directed intervention to a peer-mediated intervention. The peer-mediated intervention involved partner reading, which requires the more fluent reader to read a passage for 5 minutes while the other student listens and then the less fluent reader reads the same text for 5 minutes followed by a brief retelling of the text. The teacher-directed intervention involved the same activities as the peer-mediated intervention, but the teacher, instead of the student, modeled how to read the passages. During partner reading, the teacher served as the reader for the first 4 minutes to provide a fluent model. However, Benboom and McMaster found little difference in reading gains for most students between the peer-mediated and teacher-directed interventions. However, Benboom and McMaster concluded that some students may need more explicit instruction, including modeling and feedback that targets other basic reading skills such as decoding and word analysis strategies.

In a study about instructional reading strategies, Cantrell et al. (2013) explored middle and high school reading interventions in relation to implementation fidelity, teacher efficacy, and student achievement. Nine Grade 6 teachers and 11 Grade 9 teachers participated in this study. The reading interventions focused on how to decrease student dropout rates and improve student ACT/SAT scores. Teachers used the *Group Reading Assessment and Diagnostic Evaluation* (GRADE) to place students in specific reading interventions. Teachers chose to implement the Learning Strategies curriculum because it represented the main strands of acquisition, storage, and expression and provided students with the tools for improving skills related to word recognition,

comprehension, vocabulary, and writing. This curriculum included (a) a word identification strategy designed to help students learn how to decode multi-syllabic words to aid in comprehension; (b) a visual imagery strategy designed to help students construct mental pictures while reading; (c) a self-questioning strategy that helps students learn to ask questions about a text and predict answers; (d) a paraphrasing strategy that aids students in identifying the main idea and supporting details of a paragraph; (e) a vocabulary strategy designed to help students identify and define words in text; and (f) a sentence writing strategy designed to help students learn to write various types of sentences. Cantrell et al. found that Grade 6 teachers demonstrated higher levels of instructional efficacy because of the professional development they received and because they understood the intervention process, while Grade 9 teachers demonstrated higher levels of implementation fidelity because these teachers spent more time implementing the Learning Strategy curriculum. Cantrell et al. concluded that the high school teachers were less prepared to teach reading than the middle school teachers. Teachers with higher levels of instructional efficacy were also linked directly to improved student achievement.

In another study about reading intervention instruction, Lang et al. (2009) explored the effectiveness of intensive reading interventions in a year-long study of 1265 Grade 9 students in 89 classes across seven high schools. Thirty-one teachers provided 90-minute intervention classes to groups of no more than 21 students. The interventions included Read 180, a software program designed to provide students with individualized instruction to improve skills in decoding, fluency, vocabulary, comprehension, and

spelling. The second reading intervention was the Reading Enriches All Children (REACH), a reading intervention program for students in Grades 6 -12 designed to accelerate learning for students who are significantly below grade level in reading. The third reading intervention was Reading Intervention and Student Experience (RISE), which is an intervention guided by the philosophy that teachers who are given time, resources, and strong professional development support can create effective curriculum that is engaging and provides remediation for struggling adolescent readers. Another reading intervention was School Offered Accelerated Reading (SOAR), which includes software related to the state assessments so that students are able to practice responding to specific test items. Lang et al. found that students exceeded the benchmark for expected annual growth in all four interventions in the high risk group. For the moderate risk group, significant growth was observed in the state assessment scores with the use of the Read 180 and RISE interventions. Lang et al. recommended that students who enter high school reading below grade level need more than one year of reading interventions.

Hawkins et al. (2011) explored the effects of two reading interventions on reading fluency, comprehension, and comprehension rates of six high school students reading below grade level. All students were identified with reading disabilities. One intervention involved repeated reading, and another intervention involved vocabulary previewing. Students were placed in interventions according to their scores on timed passages that teachers administered to determine current reading levels. In the repeated reading intervention, students were required to read 63 nonfiction passages followed by 10 multiple-choice comprehension questions with three possible responses. Five

questions targeted factual knowledge, and five questions targeted inferential knowledge. For the vocabulary previewing intervention, the classroom teacher and the special education teacher selected 10 vocabulary words that were unknown to students but important for comprehension. The teacher wrote the words and their definitions on index cards that were used for correcting errors in the repeated readings. Teachers used stopwatches to record how long students took to read the passages. Oral reading fluency was measured within a timeframe of one minute and recorded as a curriculum-based measurement. Hawkins et al. found that repeated reading and vocabulary previewing led to improved reading fluency and comprehension for these high school students.

In a quasi-experimental study, Lovett et al. (2012) evaluated the efficacy of remediation for struggling readers in high school. In this study, 351 high school students from 19 high schools were identified as meeting the requirement for a reading disability. The reading intervention that these students experienced was called PHAST PACES instruction, which emphasizes word identification strategies, knowledge of text structures, and reading comprehension. The PHAST PACES intervention included five specific word identification strategies and a meta-cognitive organizational plan that supports flexible strategy application through three tracks. Track I includes word identification strategies. Track II focuses on understanding the structure of narrative, expository, and graphical texts. Track III includes comprehension strategies that emphasize self-monitoring and evaluative skills. The strategies involve predicting, activating prior knowledge, clarifying, evaluating through questioning, and summarizing. Lovett et al. found that, after 60-70 hours of intervention instruction, high school students

demonstrated significant gains on standardized tests related to work attack, word reading, and passage comprehension and on experimental measures of letter-sound knowledge and multisyllabic word identification. Participation in the PHAST PACES intervention was also associated with a greater rate of increase in reading skills across all five outcome measures. Lovett et al. concluded that it is not too late to address basic reading skill deficits in older struggling readers. However, an intervention framework needs to be comprehensive, intensive, and linguistically informed. Some students will have extensive gaps in letter-sound recognition, vocabulary, text knowledge, and decoding skills. These students still need to be exposed to age appropriate text, Lovett et al. contended, even though they are still building basic reading skills.

In other related research, Wexler et al. (2010) explored the efficacy of repeated reading and wide reading practice for high school students in Texas with severe reading disabilities. Participants included 106 students in Grades 9-12, ranging in age from 13-17 years. Teachers used the state assessment TAKS to place students in reading interventions. Students worked with a peer to read text three times each day. Each partner read the same text three times, exposing the pair to one text six times. Wexler et al. found that these students require more intensive interventions with direct and explicit instruction, and therefore, teachers used Tier 3 rather than Tier 2 interventions related to word-level and text-level skills as well as engaged reading practice. Wexler et al. suggested that this approach may be inappropriate for seriously impaired readers because there is no opportunity for them to pair with better readers. Wexler et al. concluded that

delivering highly intensive reading instruction to high school students who need it is challenging because of demands to complete required graduation credits.

In summary, instructional strategies teachers use in reading interventions at the secondary level need to be closely matched to the individual student's learning needs. Wexler et al. (2010) found that Tier 1 and Tier 2 reading interventions do not meet the learning needs of high school students struggling to master reading skills because they need more intense Tier 3 interventions. However, Wexler et al. also found that teachers need to be cautious when pairing students so that one student is a stronger reader than the other student and that they can learn from each other, supported by modeling and feedback from the teacher. This finding is in contrast with other studies presented in this section where teachers used Tier 1 and Tier 2 interventions with success. Vaughn et al. (2010) found that teachers need to receive ongoing professional development about Tier 1 and Tier 2 reading instruction in order to be successful in improving student learning. Cantrell et al. (2013) also found implementation fidelity and teacher efficacy are key factors in implementing interventions that improve student achievement in reading. All of these studies also focused on using research-based reading interventions for students identified with reading disabilities, and in most of the studies, the state assessment in reading was used to place students in these interventions. Hawkins et al. (2011) and Vaughn and Fletcher (2012) recommended adjusting reading interventions, particularly those related to the RTI model, depending on the current reading level of students are as they enter high school. Similarly, Lang et al. (2009), as well as Benboom and McMaster (2013), recommended oral reading fluency practice and peer-mediation to improve

students' reading skills. In contrast, Pretorious and Currin (2010) found that reading interventions had a positive impact on reading in the home and on school language in a high poverty area, and they concluded that if students are provided with intervention curriculum and instruction that meets their individual needs, they can improve their reading skills in both English and their native language.

Two major concerns also emerged from this research on instruction related to reading interventions. First, professional development for content area teachers is essential in the areas of vocabulary and reading comprehension in order to improve student reading (Benboom and McMaster, 2013; Cantrell, 2013; Hawkins et al., 2011; Lang et al., 2009; Lovett et al., 2012; Vaughn and Fletcher, 2012; Wexler et al., 2010). Second, a need for a school-wide intervention frameworks exists, in which students' response to quality interventions are monitored (Vaughn et al., 2010). With a high prevalence of reading problems continuing into the middle grades and an increasing focus on improving high school retention and preparing students for postsecondary learning, reading instruction at the secondary school level has become increasingly important (Vaughn et al. 2012). Researchers have suggested that teachers should integrate explicit instruction with strategic reading and writing exercises into lessons on a daily basis, and student progress should be closely monitored (Benboom & McMaster, 2013; Wexler et al., 2010). However, more research about how teacher implement reading interventions, particularly in relation to the RTI model, at the secondary school level is still needed.

Reading Intervention Assessments

Research indicates that assessment practices related to interventions involve frequent progress monitoring of student performance. In this section, research is analyzed in relation to a variety of assessment strategies that teachers have used to monitor the progress of struggling readers placed in intensive reading interventions. This section concludes with an analysis of these studies in relation to their relevance to this study.

In one study about assessment practices related to reading interventions, Soper et al. (2012) examined literacy interventions for adolescents in public high schools in the state of Florida. Educators in that state use the Florida Comprehensive Assessment Test (FCAT) as part of a comprehensive reading plan for all K-12 students. If a student scores below proficiency on the FCAT, they receive reading interventions until they achieve proficiency. Teachers use both formative and summative assessments to monitor the progress of students in these interventions. Informal assessments are used daily, which include observations, checklists, exit cards, and one-minute timed readings. Teachers conduct this progress monitoring by using the Florida Assessment for Instruction in Reading (FAIR) system. Technology-based assessments are used one to three times a week. The reading skills that teachers assess include sight words, text features, rereading, fluency, segmenting and blending, sounding out words, identifying narrative and expository text, syllable splitting, and advanced phonics. Soper et al. found secondary students need explicit, intensive instruction, which requires coordination of valid assessments, targeted instructional interventions, extended time, and support at the state, district, and classroom level.

In a related study, Crawford (2014) examined the role of assessment in the RTI model. Crawford noted that the components for assessing student progress in the RTI model include (a) an agreed-upon definition of student success at each tier of support; (b) the use of valid and reliable measures of student performance, and (c) the graphing of student progress data as opposed to point-in-time performance data. Crawford also noted that assessment in the RTI model should include (a) screening all students in the school fall, winter, and spring quarters; (b) identifying low achievers and monitor them monthly; (c) and monitoring students needing intensive interventions at least weekly. Crawford recommended the use of national norms when the student population of the local district is so small that reliable norms cannot be established. In relation to Tier 1, Crawford recommended that educators use quarterly assessments that are more content-based. For Tier 2, Crawford recommended that assessments target underlying deficits in basic skills, but teachers may also want to design and use curriculum-based measurements in specific content areas such as reading. For Tier 3, Crawford recommended that assessments align with the targeted intervention provided to students at their instructional level, not necessarily at their grade level. Crawford concluded that the assessment system for RTI should provide data for informed decision making on the basis of normative data or established benchmarks, use reliable measures, and provide visual illustrations of a student's progress over time.

In another study about assessments used in reading interventions, Hunley et al. (2013) investigated the relationship between curriculum-based measures and a state assessment in reading. For this study, 75 Grade 7 students read three passages aloud to

determine their oral reading fluency scores. Hunley et al. compared the results for these students on the Ohio state reading assessment to their oral reading fluency scores and found that oral reading fluency scores are accurate predictors of reading comprehension. However, Hunley et al. also found that oral reading fluency scores change from year to year, because students will only progress when exposed to interventions that meet their individual learning needs, which further validates the use of oral reading performance as a predictor of success on state assessments. The use of curriculum-based measures, such as oral fluency assessments, helps teachers to place at-risk students in the reading interventions they need to pass the state assessments in reading.

In other related research, Filkins (2013) discussed the need to reconsider adolescent reading assessments. Assessment as caring is the main concept that Filkins emphasized in this discussion, contending that teachers need to realize that the purpose of formative assessments is to elicit a response of increased confidence from learners. Filkins recommended that teachers maximize the potential for formative assessments by adhering to the following four principles: (a) understand the reason for assessments is to show students that they can improve and that teachers use informed decision making; (b) demonstrate a strong knowledge about reading; (c) provide a repertoire of instructional tools; and (d) implement a flexible curriculum instructional framework, including diverse instructional materials that allows students to respond to what has been learned through assessments. Filkins contended that teachers who take the time to read complex text with students will help students understand how to decipher difficult reading. Teachers need to ask specific questions following the reading activity to help students to demonstrate their

overall understanding of the text, confirm or clarify their expectations for the text, and share any other information about the text. Filkins also recommended that teachers engage in a joint effort with students to help them learn the strategies to analyze difficult text in a Tier 1 intervention. Filkins concluded that with so many policymakers supporting standards and assessments, it is easy for students to feel that no one cares what they think and feel, but teachers, curriculum coordinators, and professional development providers need to work together to offer a less cynical, more constructive approach to adolescent assessments in reading.

In another study about reading assessments, Tolar et al. (2012) examined the psychometric properties of maze tasks in middle school reading interventions. A maze is a multiple-choice cloze task that students complete while silently reading a short passage. Participants in this study were teachers who used the maze assessment as a progress monitoring tool for 1343 students in Grades 6-8 in seven schools in the state of Texas. Teachers used the Texas Assessment of Knowledge and Skills (TAKS) and the AIMS assessment, which measures fluency and comprehension, for placement of students in reading interventions The following formative assessments were given at the beginning and the end of the year to show progress: (a) the verbal knowledge subtest (KBIT), which assesses receptive vocabulary and general information and is used for recognizing students who are reading below grade level; (b) the *Woodcock Johnson III Passage Comprehension*, which uses a cloze procedure to assess sentence level comprehension; (c) the *Group Reading Assessment and Diagnostic Evaluation Passage Comprehension* (GRADE), which requires students to read one or more paragraphs and answer multiple-

choice questions; and (d) the *Test of Word Reading Efficiency* (TOWRE), which consists of two subsets: sight word efficiency and phonemic decoding. At each grade level, teachers provided the following reading interventions: (a) typical, (b) struggling-intervention, (c) struggling-no intervention, and (d) the passage protocol group, which requires students to read 15 passages that are both familiar and novel. Teachers used the maze assessment to measure students' reading progress and to evaluate the effectiveness of their instructional programs. Tolar et al. found that among middle school students, gains were greater for students who read the same passage during each assessment than students who read a new passage during each assessment. Tolar et al. also found that when students read the same passage over multiple occasions rather than novel passages over time, student performance improved.

In other assessment research, MacCallum et al. (2011) described a model for screening twice-exceptional students (gifted with learning disabilities) within a RTI paradigm. MacCallum conducted a study of 115 students at two inner-city high schools who participated in a 2 week summer program in the southeastern region of the United States. Students were asked to (a) silently read brief selected passages; (b) perform a three-part ask, read, and tell (ART) comprehension enhancement exercise before, during, and after reading the selected passages; and (c) participate in a peer discussion of the reading. Students also answered 10 questions following the reading. MacCallum et al. found high levels of reading comprehension using the ART comprehension exercise. In addition, peer discussion, prior to answering the 10 questions, resulted in increased reading comprehension. However, this study was conducted at a university outside of the

school year where parental motivation may have been critical, and students were required to read unfamiliar passages. If this study had been conducted during the school year, results may have been different.

In conclusion, these studies indicate that teachers need to use frequent assessments to monitor student progress during intensive reading interventions. MacCallum et al. (2011) found that teachers use few written assessments to monitor progress during reading interventions, relying instead on peer discussion to improve student comprehension of complex text. In contrast, Tolar et al. (2012) found that teachers use assessments at the beginning, the middle, and the end of an intervention. In most of the studies, researchers indicated the need for ongoing progress monitoring to help teachers make effective decisions about moving students within the different tiers of the RTI model. Some researchers recommended that assessments be used as baseline data at the beginning of the next school year to place students more appropriately in specific interventions. Soper et al. (2012) found that teachers across the state of Florida use student results on the state assessment in reading to provide guidance in making decisions about when to move students from tier to tier within the RTI model. Filkins (2013) found that teachers used curriculum-based measures as formative reading assessments and stressed the importance of the student/teacher relationship in helping students understand that they are assessed because teachers care that they are learning. This caring can also be seen as a motivational factor in inspiring students to do their best in this era of accountability. Hunley et al. (2013) also examined the use of curriculum-based measurements and high-stakes testing to monitor student progress in reading. Hunley et

al. argued that because some states use state assessments as a graduation requirement, students often become stressed that they might not graduate due to their score on one test. Researchers also noted that educators in many states use state assessments to determine initial placement of students in reading interventions, but they also use other methods for progress monitoring that help them to move students within the intervention tiers, which needs to be consistent so students are able to return to the general education classroom.

The relevance of this research on intervention assessments to this study is that teachers need to use these types of assessments to identify students who are not proficient in reading. Then teachers also need to use these assessments to determine the type of research-based reading intervention that would most benefit the student. Teachers also need to use formative assessments to monitor student progress as interventions are implemented and to move students from tier to tier and back again into the general education classroom when they have demonstrated the necessary improvements in reading. Thus, RTI should be driven by assessments, particularly continuous progress monitoring.

Summary and Conclusions

In summary, this chapter included a review of the research related to reading interventions for secondary school students. This chapter included a description of the specific search strategies used to conduct this literature review and the conceptual framework that forms the foundation for this study, which is based on scaffolding as an instructional strategy as presented by Vygotsky (1931). Early research on remedial reading that has evolved into reading interventions was analyzed. In addition, two RTI

models that are most frequently used in K-12 schools were described: the standard protocol model and the problem solving model, and the advantages and disadvantages of each were presented. Current research about curricular resources, instructional practices, and assessments related to reading interventions was also analyzed, with particular emphasis on their relationship to Tier 1 and Tier 2 interventions in the RTI model.

Several themes emerged from this literature review. The first theme is that educators have provided remedial reading instruction and reading interventions with varying levels of success for some time in order to address the needs of struggling readers at the secondary school level. In an examination of five decades of reading research, Harris et al. (1967) traced the history of remedial reading interventions that has evolved into a current emphasis on intensive reading interventions that follow the federally mandated RTI model. From 1915-1925, Harris et al. (1967) noted an emphasis on diagnosing reading deficiencies. From 1925-1937, Harris et al. described an emphasis on the development of reading tests and textbooks about phonics. From 1936-1945, Harris et al. (1967) found that causation was focused on personality maladjustment and the emotional state of the child, leading to reading difficulties. Reading machines were developed to improve reading skills. From 1946-1955, Harris noted an emphasis on inappropriate teaching practices, neurological difficulties, and speech and auditory difficulties, and the development of texts that included specific instructional strategies to address reading deficiencies. From 1956-1965, Harris et al. found that researchers and educators believed that reading difficulties did not have a relationship with student intelligence. Journal articles were published on remedial reading with an emphasis on

phonics instruction. In another meta-analysis, Solis et al (2012) examined 30 years of research about reading interventions and recommended that teachers use direct and explicit instruction for reading comprehension, place greater emphasis on vocabulary instruction, provide extended discussion of text meaning and interpretation, and consider student motivation and engagement in order to increase student reading skills. Edmonds et al. (2009) conducted a synthesis of reading interventions and effects on reading comprehension outcomes for older struggling readers and found that the ultimate goal of reading instruction at the secondary level is comprehension or determining meaning from text. In this meta-analysis, Edmonds et al. suggested that students who enter high school with low basic reading skills need more intensive Tier 3 interventions in order to improve these skills. Edmonds et al. also suggested that older struggling readers benefit from explicit comprehension strategy instruction, which includes modeling and thinking aloud, self-questioning and reflecting during and after reading, and becoming actively involved in monitoring their understanding and in processing text meaning. Solis et al. (2014) examined longitudinal studies of adolescents with reading disabilities and poor reading comprehension and found that struggling readers improve in reading if teachers attempt to meet their individual needs through the RTI model. However, Solis et al. cautioned educators that they should use only research-based assessments when making decisions about reading interventions for older struggling readers.

The second theme is that teachers need to align intervention curriculum with the state standards or the Common Core State Standards (CCSS) in order to meet the individual needs of students with specific deficits in reading. With the emergence of the

CCSS, reading intervention curriculum has changed. Roskos and Neuman (2013) and Wixson and Lipson (2012) explored the relationship between reading intervention curriculum and the CCSS and found that the common core standards and reading intervention curriculum need to be joined together for successful implementation of RTI-Vaughn and Fletcher (2012) described effective online reading intervention programs such as Read 180, which is aligned with the CCSS. Vaughn and Fletcher recommended that intervention curriculum needs to be targeted to individual student needs. In support of that idea, Fuchs et al. (2010) found that older students often demonstrate many weaknesses in reading, ranging from word recognition to higher order language and meta-cognitive skills, which requires an individualized reading intervention curriculum. Benboom and McMaster (2013) examined Tier 2 interventions and found that students at-risk for failure in reading need a focus on reading fluency and comprehension in a teacher-directed approach. Researchers agree that teachers need to carefully choose a reading curriculum to make sure it matches individual student skill deficits and meets the standards required at that grade level.

The third theme is that teachers need to implement instructional practices that meet the needs of individual students during intensive reading interventions. After students have been placed in a reading intervention, the RTI team or classroom teacher must select or design instructional strategies that will improve students' reading skills. In order to provide effective intervention instruction, Cantrell et al. (2013) contended that teacher efficacy about their ability to teach reading needs to be supported by professional development in the curriculum in which they are to implement. Cantrell et al. also argued

that fidelity of implementation is critical because middle and high school teachers are not prepared to teach reading, and therefore, implementation of instructional models such as RTI need to be supported with frequent high quality professional development activities. Wexler et al. (2010), Lovett et al. (2012), and Hawkins et al. (2011) also described effective instructional strategies that teachers use in intensive reading interventions, including oral reading fluency, repeated reading, wide reading practice, and peer-pairing. They concluded that reading interventions need to meet individual student needs and need to be research-based.

The fourth theme is that frequent assessment is critical in implementing a successful reading intervention. Soper et al. (2012) described how educators in Florida initiated a statewide reading intervention plan based on the use of assessments for effective placements and progress monitoring so that teachers can make data-based decisions to move students from one tier to another and retain the majority of students within the general education classroom. Crawford (2014), Filkins (2013), and Hunley et al. (2013) described how teachers use curriculum-based measures and other formative reading assessments to improve student achievement in reading. Tolar et al. (2012) found that the maze assessment was effective in monitoring progress for students struggling with reading deficits. However, researchers agreed that school district educators still need to provide stronger support for reading interventions that can make the movement of students from tier to tier more efficient and more data driven.

Several research gaps have emerged from this literature review. One gap is that little research has been conducted about how teachers implement effective reading

interventions in their classrooms at the high school level. In relation to assessment, little is known about how teachers make placement decisions and monitor student progress in Tier 1 and Tier 2 interventions. Concerning the implementation of instructional strategies, a research gap still exists about how to use progress monitoring to move students from Tier 1 to Tier 2 at the high school level. Another gap in the research is about the impact of professional development for secondary school teachers on their reading instruction. This study addressed these research gaps by exploring how English language arts teachers implement instruction and assessment during Tier 1 and 2 reading interventions in their classrooms.

Chapter 3 includes a description of the research method that was used for this study. This chapter includes a description of the research design and rationale, the role of the researcher, participant selection, instrumentation, procedures for recruitment and participation as well as data collection, and the data analysis plan. Issues of trustworthiness and ethical procedures for qualitative research are also described.

Chapter 3: Research Method

The purpose of this qualitative study was to explore how high school English language arts teachers implemented instruction and assessment during Tier 1 and Tier 2 interventions in reading in their classrooms at a rural high school in the United States. To accomplish this purpose, how these high school English language arts teachers used diagnostic assessment data to determine the placement of students in Tier 1 and Tier 2 interventions in reading was described. In addition, how these teachers scaffolded instruction for students in Tier 1 and Tier 2 assessments and how they monitored student progress in reading was described. The professional development that teachers needed to effectively implement these interventions in their classrooms was also described.

This chapter is about the research method used to conduct this study. It includes a description of the research design and rationale, the role of the researcher, participant selection, and instrumentation. In addition, procedures for recruitment, participation, and data collection, the data analysis plan, issues of trustworthiness, and ethical procedures are described.

Research Design and Rationale

The central research question for this study was: How do high school English language arts teachers implement instruction and assessments during Tier 1 and Tier 2 reading interventions in their classrooms? The related research questions were:

1. How do high school English language arts teachers use diagnostic assessments to determine student placement in Tier 1 or Tier 2 reading interventions?

2. How do high school English language arts teachers scaffold instruction during Tier 1 or Tier 2 reading interventions?

3. How do high school English language arts teachers monitor student progress in Tier 1 and Tier 2 reading interventions?

4. What professional development do high school English language arts teachers need to effectively implement Tier 1 and Tier 2 reading interventions?

The qualitative research design that was selected to answer these research questions was a single case study. Yin (2014) defined a case study in two parts. In the first part, Yin defined case study as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between the phenomenon and context may not be clearly evident" (p.18). In the second part, Yin added:

> Case study research copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis. (p. 18)

A single case study design was chosen because collecting data from multiple sources of evidence provided a rich picture of Tier 1 and Tier 2 reading interventions at the high school level. The single case for this study was the RTI model that English language arts teachers used to implement Tier 1 and Tier 2 reading interventions in a small rural public

high school in the southwestern region of the United States. The RTI model implemented at this high school was a standard protocol model.

In relation to the methodology of this study, participants included five high school English language arts teachers who were responsible for implementing Tier 1 and Tier 2 interventions in their classrooms at the research site. I collected data from individual interviews with teachers who provided Tier 1 and Tier 2 intervention instruction in reading for students in Grades 9, 10, 11, and 12 at the research site. In addition, I asked these teachers to maintain a reflective journal about professional development related to reading interventions. I also conducted observations of interventions in reading at each grade level to determine how these teachers implemented instruction and assessments in reading for identified students. In addition, I collected documents related to the implementation of RTI at the research site, including:

- The state standards in reading for Grades 9, 10, 11, and 12.
- Instructional guidelines for each grade level in relation to the implementation of RTI at this research site.
- Group summary results of classroom curriculum-based measurements that assess reading fluency and comprehension skills and district and state group assessment results in reading for students in Grades 9, 10, 11, and 12 from 2011-2014.
- District and school documents related to professional development on RTI.

In relation to data analysis, at the first level, I used line-by-line coding that Charmaz (2006) recommended for qualitative research to code the interview data, the observation data, and the reflective journal data. I used a content analysis for the documents, which involved describing the purpose, content, and use of each document. I then used the constant comparative method that Merriam (2009) recommended to construct categories for all of these data sources. At the second level, I analyzed the data across all sources to determine themes and discrepant data, which were the basis for the findings of this study. I analyzed these findings in relation to the central and related research questions, and I interpreted the findings in relation to the conceptual framework and the literature review for this study.

Other qualitative research designs that were considered included: phenomenology, grounded theory, and ethnography. Creswell (2007) defined the purpose of phenomenology as describing the "the lived experiences of a concept or a phenomenon" (p. 57). The intent of this single case study, however, was not to describe the individual experiences of English language arts teachers with the RTI model, and therefore, this design was rejected. Creswell defined grounded theory as moving "beyond description to generate or discover a theory, an abstract analytical schema of a process" (p. 63). I considered this design and rejected it because the purpose of this study was not to discover or generate a theory about reading interventions. Creswell defined ethnography as the study of an entire cultural group over an extended period of time. I rejected ethnography because the purpose of this study was not to examine the culture of a specific group of teachers over time in relation to intervention instruction. Thus, a

single case study design was an appropriate research design for this study because the purpose of this study was to describe how high school English language arts teachers implemented instruction and assessments during Tier 1 and Tier 2 interventions in their classrooms (Yin, 2014).

Role of the Researcher

For this study, I was responsible for all data collection, analysis, and interpretation. Because I was a single researcher, a potential for researcher bias existed. I addressed these biases by implementing specific strategies to enhance the trustworthiness of this study, including the use of triangulation, member checks, and self-reflection. I also used rich, thick descriptions to present the case and the findings and maximum variation of the sampling to enhance the transferability of the findings. These strategies are described in more detail later in this chapter.

At the time of this study, I was employed as an English language arts teacher in a public high school in the southwestern region of the United States, but this high school was not involved in this study. The research site was a high school located in a neighboring public school district and I did not have any personal relationship with or supervisory responsibilities for any of the participants.

Participant Selection

The participants in this study were five English language arts teachers employed at a high school in a rural public school district located in the southwestern region of the United States. These participants included one Grade 9 English language arts teacher; two Grade 10 English language arts teachers; one Grade 11 English language arts

teacher; and one Grade 12 English language arts teacher. Potential participants were determined according to a purposeful sampling technique, based on the following inclusion criteria: (a) participants must be certified English language arts teachers, (b) participants must be employed at the proposed high school for this study, and (c) participants must provide Tier 1 and Tier 2 reading interventions in their classrooms at the proposed high school. Any potential participant who expressed an interest in participating in this study and returned a signed consent form was selected.

The relationship between saturation and the sample size was sufficient for this case study. Potential participants comprised the entire English language arts department at this research site, which included 11 English language arts teachers and one reading specialist who provided Tier 1 and Tier 2 reading interventions in their classrooms at this high school. A sample size of five teachers was sufficient because the data that I collected from the interviews with these participants and the observations of their Tier 1 and Tier 2 interventions gave me a rich picture of how these teachers provided these interventions in their classrooms. In addition, participants represented all four grade levels at the high school.

Instrumentation

For this study, I designed three instruments. The first instrument was the interview protocol that I used to conduct the individual interviews. The second instrument was the observation data collection form that I used to record field notes and researcher reflections about Tier 1 and Tier 2 reading interventions, based on specific criteria that Merriam (2009) recommended for conducting observations for qualitative

research. The third instrument was the reflective journal that I asked participants to maintain for a week. In addition, I aligned these instruments with the research questions (see Appendix F). These instruments are explained in more detail below.

Interview Protocol

This instrument was based on guidelines for conducting effective interviews for qualitative research that Merriam (2009) developed. The interview protocol that I designed includes eight open-ended questions (see Appendix C). I also determined the order of the questions in order to follow a structured format that Merriam recommended. These interview questions addressed the following topics: (a) assessments that teachers use for placement of students in Tier 1 and Tier 2 reading interventions, (b) instructional strategies that teachers use in implementing Tier 1 and Tier 2 reading interventions in their classrooms, (c) progress monitoring tools that teachers use to make decisions about student performance in reading, and (d) professional development that teachers believe they need in order to effectively implement Tier 1 and Tier 2 reading interventions.

Observation Data Collection Form

The design of this instrument was based on six criteria that Merriam (2009) recommended for conducting observations in any setting for qualitative research and that I modified for this study (see Appendix D). These criteria included (a) the physical setting of the classroom where the Tier 1 and 2 reading interventions occurred, which included the use of instructional space, technology, and print and non-print resources, (b) the classroom participants involved in the Tier 1 and Tier 2 reading interventions, which included the number and gender of students, number of teachers, and number of other

adults, (c) the instructional activities and interactions that occurred during the Tier 1 and Tier 2 reading interventions, which included the objective of the lesson, the instructional strategies that the teacher uses to deliver that lesson, and the assessments that the teacher used to monitor student progress, (d) intervention scaffolding in relation to diagnostic assessment, instruction, and progress monitoring, (e) student engagement during the Tier 1 and Tier 2 reading interventions, including conversation among students and conversation between the teacher and student, and (f) the researcher's presence during the observation of Tier 1 and Tier 2 interventions, which included the researcher's location during the observation, student and teacher awareness of the researcher, and the researcher's participation in the instructional lesson.

Reflective Journal Questions

The reflective journal included three open-ended questions that participants responded to in writing (Appendix E). For first question, teachers were asked to describe the professional development that they received prior to implementing Tier 1 and Tier 2 reading interventions in their classrooms. For the second question, teachers were asked to describe the professional development that they received during their implementation of these reading interventions. For the third question, teachers were asked to reflect on the professional development they believed high school English language arts teachers need in order to effectively implement Tier 1 and Tier 2 reading interventions in the classroom.

Procedures for Recruitment, Participation, and Data Collection

Concerning recruitment, I first contacted the superintendent of the proposed school district to explain the purpose of this study and to obtain a signed letter of cooperation, indicating the school district's agreement to be my research partner (see Appendix A). I also contacted the principal of the proposed high school to explain the purpose of this study and to obtain a signed letter of teacher consent (see Appendix A). In addition, I asked the principal to help me determine those potential participants who met the inclusion criteria that I developed.

In relation to participation, I contacted the English language arts teachers and the reading teacher by mailing them a letter of invitation with an enclosed consent form (see Appendix B) that they needed to sign if they were interested in participating in this study. I asked them to return this signed consent form in the self-addressed stamped envelope that I enclosed in the mailing. When I received the signed consent forms, I contacted the participants by telephone to schedule the individual interviews and observations and to explain the data collection procedures for the reflective journal as well as to answer any questions they had about the study.

In relation to data collection, I met individually with each teacher in a private office conference room at the high school during non-instructional hours to conduct the interview. Each interview was about 30 to 45 minutes. At the end of the interviews, I explained the purpose of the reflective journal and informed participants that I would email the questions within a few days. Participants were asked to email their responses to me within a week. I conducted observations of Tier 1 and Tier 2 reading interventions in

the classrooms of these individual teachers on a date and time that the teachers preferred. Each observation lasted the entire length of the interventions. In addition, I intended to collect the following documents related to the implementation of RTI at the research site: (a) the state standards in reading for Grades 9, 10, 11, and 12 from the State Department of Education website; (b) instructional guidelines for each grade level, if available, in relation to the implementation of RTI at this research site from the English language art department chairperson; and (c) district and state group assessment results in reading for students in Grades 9, 10, 11, and 12 for the last 3 years from the state and district websites, and (d) district and school documents related to professional development on RTI from the English department chairperson.

Data Analysis Plan

Data analysis was conducted at two levels. At the first level, I used line-by-line coding that Charmaz (2006) recommended for qualitative research to construct the codes for the interview data, the observation data, and the reflective journal data. I used a content analysis for the documents by describing the purpose, content, and use of each document. I used the constant comparative method that Merriam (2009) recommended to construct categories from the codes that I created for each data source. At the second level, I examined the data across all data sources to determine themes and discrepant data, which were the basis for the findings of this study. I analyzed these findings in relation to the central and related research questions for this study, and I interpreted the findings in relation to the conceptual framework and the literature review.

Issues of Trustworthiness

Merriam (2009) and Yin (2014) both noted that trustworthiness in qualitative research is particularly important because every researcher wants to contribute knowledge to their field that is believable and trustworthy. Trustworthiness is often described in relation to the constructs of transferability, dependability, and confirmability. In this section, specific strategies that were used to improve the trustworthiness of this qualitative research are described.

Credibility

Merriam (2009) defined credibility as internal validity or how the research findings match reality. To improve the credibility of qualitative research, Merriam recommended that researchers use the strategies of triangulation, member checks, adequate engagement in data collection, clarification of the researcher's position, and peer examination. I used the strategy of triangulation to improve the credibility of this study by comparing and contrasting data from multiple sources of evidence, including interviews, observations, and documents. I also used the strategy of member checks by asking participants to review the tentative findings of this study for their plausibility. In addition, I used the strategy of adequate engagement in data collection by spending several months at the research site in order to collect data from multiple sources.

Transferability

Transferability refers to the extent to which the findings of one study can be applied to other situations. Merriam (2009) described several strategies that improve the possibility of transferability. The first strategy is the use of rich, thick description, which

involves a detailed presentation of the setting, participants, and findings of a study. Another strategy is maximum variation or typicality in relation to the study sample. For this study, I used the strategy of rich, thick description by describing the setting, the participants, and the findings of this study in detail. In addition, I used the strategy of typicality of the sample because the Tier 1 and Tier 2 interventions implemented at this research site are typical of the reading interventions related to the RTI model that teachers implement throughout the state to help high school students who are not proficient in reading.

Dependability

Merriam (2009) defined dependability or reliability as the extent to which the research findings can be replicated. Dependability occurs when the results of qualitative research are consistent with the data collected. Merriam recommended using the strategies of triangulation, peer examination, researcher's position, and the audit trail to improve the dependability of qualitative research. For this study, I used the strategy of triangulation by comparing multiple sources of data to ensure dependability of results. I also used the strategy of an audit trail by maintaining a researcher's journal in which I recorded all of the decisions that I made about data collection and analysis during the research process.

Confirmability

Confirmability refers to the objectivity of qualitative research. Merriam (2009) noted that one of the strategies to improve the confirmability of a study is reflexivity, which is referred to as the researcher's position and is "the process of reflecting critically

on the self as researcher, the 'human as instrument'" (Lincoln & Guba, 2000, p. 183 as cited in Merriam, 2009, p. 219). The data that I collected needs to be an honest representation of the Tier 1 and Tier 2 interventions that the high school English language arts teachers and the reading teacher in this study have implemented in their classrooms. As a high school English teacher in another public school district, therefore, I was careful that my own experiences did not bias the data collection and data analysis that I conducted for this study. In order to minimize this potential bias, I recorded the interviews for accuracy of transcription. I also used the strategy of member checks by asking all participants to review the tentative findings of the study for credibility. In addition, I used the strategy of an audit trail by maintaining a researcher's journal that included my reflections about the decisions I made during the research process. The journal also included questions that emerged while I collected and analyzed data.

Ethical Procedures

Merriam (2009) contended that researchers need to conduct qualitative research with integrity. The ethical stance of the researcher needs to be considered, and the individual researcher needs to recognize his or her assumptions and biases prior to conducting research. Therefore, I adhered to the requirements of the Institutional Review Board (IRB) at Walden University. I completed an IRB application that required me to provide a description of the proposed research study. The IRB application also required me to describe how I planned to identify my community research partners and how I would share the results of this study with them. In addition, the IRB application required me to seek informed consent from all participants and to describe the anticipated risks

and benefits of their participation. I also described procedures to maintain data confidentiality and disclose potential conflicts of interest. I presented specific inclusion and exclusion criteria for the selection of participants and explained how vulnerable populations would be protected from safety/privacy risks and pressure to participate. I received approval from the IRB for this application prior to beginning data collection (06-26-15-0157842).

Conclusion

In summary, this chapter was about the research method that was selected to conduct this study. A single case study design was selected because it allowed for the collection of data from multiple sources in order to present a rich picture of the boundaries between the phenomenon of implementing the RTI model and the context of classroom instruction. In this chapter, the research design and rationale, the role of the researcher, participant selection, and instrumentation were also described. In addition, procedures for recruitment, participation, and data collection, the data analysis plan, issues of trustworthiness, and ethical procedures were included.

In Chapter 4, the results of the study are presented. A description of the setting and participant demographics and a review of the data collection process are included. Data analysis procedures for each data source are also presented. In addition, evidence of trustworthiness is discussed, and the results of this study are analyzed in relation to the central and related research questions.

Chapter 4: Results

The purpose of this single case study was to explore how high school English language arts teachers implemented instruction and assessment during Tier 1 and Tier 2 interventions in reading in their classrooms. To accomplish this purpose, I described how these English language arts teachers used diagnostic assessment data to determine student placement in Tier 1 and Tier 2 interventions in reading. In addition, I also described how teachers used scaffolding to differentiate and individualize instruction and how they monitored progress for identified students during these interventions. The professional development that teachers received and that they believed they still needed to effectively implement these interventions in their classrooms was also described.

The central research question for this study was: How do high school English language arts teachers implement instruction and assessments during Tier 1 and Tier 2 reading interventions in their classrooms? The related research questions were:

1. How do high school English language arts teachers use diagnostic assessments to determine student placement in Tier 1 or Tier 2 reading interventions?

2. How do high school English language arts teachers scaffold instruction during Tier 1 or Tier 2 reading interventions?

3. How do high school English language arts teachers monitor student progress in Tier 1 and Tier 2 reading interventions?

4. What professional development do high school English language arts teachers need to effectively implement Tier 1 and Tier 2 reading interventions?

This chapter is about the results of this single case study. It includes a description of the setting, participant demographics, and the procedures used to collect data. In addition, data analysis procedures are described in relation to each specific data source in order to determine the key findings, which are analyzed in relation to the central and related research questions. Evidence of trustworthiness for this qualitative research is also discussed.

School Setting

The research site for this single case study was Merrion High School (pseudonym), which is located in the Southwest region of the United States. This high school is located in the Saint Patrick Public School District (pseudonym), which has one preschool, one special education preschool, eight elementary schools, four middle schools, and three high schools. This school district covers 807 square miles (www.merrionhighschool.com). For the 2014-2015 school year, 10,323 preK-12 students were enrolled, and 1200 staff members were employed (www.merrionhighschool.com). District demographics indicated that students were 37% White; 35% Native American/Native Alaskan; 24% Hispanic; 1% Black; 0.3% Native Hawaiian; and 0.4% Asian American (www.merrionhighschool.com). At the district level, 55.3% of the students received free and reduced lunches, and 39.3% of the students were identified for special education services, including English as a Second Language (ESL) (www.merrionhighschool.com). The district graduation rate for 2014-2015 was 63%, which was a decrease from an average of 95% over the past 5 years (State Department of Education, 2015). Educators in this district implemented state standards and assessments

in reading beginning in 2005 in response to the No Child Left Behind Act of 2001, and they began integrating the Common Core State Standards for English language arts into specific district courses in 2012. In 2014-2015, student reading performance across the district averaged 24% at *Beginning Steps*; 25% at *Nearing Proficient*; 45% at *Proficient*; and 6% at *Advanced*.

For the 2014-2015 school year, Merrion High School enrolled a total of 1424 students, including 423 Grade 9 students, 358 Grade 10 students, 324 Grade 11 students, and 319 Grade 12 students (www.merrionhighschool.com). The special education population comprised 28% of the student population, including ESL students (www.merrionhighschool.com). The student to teacher classroom ratio was 16:1. Student demographics indicated that 38% of students identified as White; 30% as Native American/ Native Alaskan; 29% as Hispanic; 0.4% as Asian American; and 1% as Black; 0.7% Multi-Racial; and 0.3% Native Hawaiian (www.merrionhighschool.com). Many of the American Indian students lived on reservations (www.merrionhighschool.com). Students who qualified for free and/or reduced lunches comprised 47% of the population (www.publicschoolrecord.com).

For the 2012-2013 school year, Merrion High School did not meet AYP and it was designated as a *Restructuring 2 School,* which meant that the State Department of Education required full implementation of a revised school improvement plan called the *Educational Plan for Student Success (*www.merrionhighschool.com). The State Department of Education also assigned instructional coaches, mentors, and specialists to support teachers in implementing this plan (www.merrionhighschool.com). During the

second year of restructuring, district educators were required to continue to provide teachers with quality technical support and assistance that addressed the complexities of this implementation. In relation to improving reading, this revised school improvement plan included the implementation of new technology to help students improve their reading skills and state reading scores.

Table 2 presents the results for Grade 11 students on the state assessments in reading at Merrion High School from 2011 to 2014.

Table 2

Reading Performance for Grade 11 Students

Year	Advanced	Proficient	Nearing Proficiency	Beginning Steps
2011 - 2012	10.3%	43.3%	37.8%	8.2%
2012 - 2013	4.9%	27.1%	47.5%	20.1%
2013 – 2014	2.8%	28.3%	45.4%	23.5%

Note: www.nmped.org

Table 2 indicates that the number of advanced students decreased and the number of beginning steps students increased during this 3 year period. In addition, the number of proficient students decreased while the number of nearing proficient students increased during this 3 year period.

Several organizational conditions may have influenced the interpretation of study results. In 2014-2015, educators at Merrion High School adopted a flexible data-driven reading intervention program called FLEX for struggling readers, but the technology was not working when data was collected (www.merrionhighschool.com). The

implementation of this intervention program may have influenced the findings of this study because the FLEX reading reports would have provided richer data about student reading performance in classroom interventions.

English Language Arts Program

For the 2014-2015 school year, the English language arts department was comprised of 11 licensed English language arts teachers and one reading teacher who taught a variety of courses to students in Grades 9-12. The following required course descriptions were found in the student handbook that described the English language arts program. The State Department of Education required teachers to implement Tier 1 and Tier 2 reading interventions in all of these courses.

English 9 "is designed for students to meet the standards for college-bound and vocation-bound students who have average and above average English language arts skills. The student will study grammar and usage, improve spelling and vocabulary, analyze a variety of literary forms with a strong focus on informational text through written and oral activities. Students will develop note-taking, outlining, and research skills and read novels. There is an in-depth emphasis on the writing process including paragraphs and expository essays. Class sizes range from 27 to 35 students" (Merrion High School Course Catalog, p. 26).

English as a Second Language (ESL) 9 "is designed to give the intermediate level non-native speakers of English the skills necessary to write a good paragraph and short essay. Open only to non-native speakers of English and may be repeated. Classroom sizes range from 9-15 students" (Merrion High School Course Catalog, p. 32).

English 9 Honors "is designed for the 21st century, college-bound student who is willing to strive to meet high standards, utilize group and independent work, communication skills, technology, presentation skills, and problem solving. Students will complete in-depth analyses of various literary forms through written and oral activities with an emphasis on informational text and will begin preparation for the Advanced Placement Test through the reading and examination of several novels. Responses, both objective and subjective, will include explication, prediction, analysis, criticism, and evaluation. Class size ranges from 16 to 22 students" (Merrion High School Course Catalog, p. 26).

English 10 "is designed to meet the standards for college-bound and vocation-bound students who have above-average English language arts skills. The student will review grammar and usage; improve spelling and increase vocabulary; use both oral and written language; study short stories, various novels, poetry, non-fiction, drama, and world literature. Writing will include paragraphs, a study of informational text, various types of essays, and creative writing assignments. Research projects and presentations will be included. Class size ranges from 22 to 25 students" (Merrion High School Course Catalog, p. 26).

English 10 Honors "is designed for 21st century college-bound students who are willing to strive to meet high standards, utilizing group and independent work, communication skills, technology, presentation skills, and problem solving. Students must be willing to read and to respond to a variety of literatures, both in writing and speaking, with an emphasis on informational text. Responses, both objective and

subjective, will include explication, prediction, analysis, criticism, and evaluation. Students will begin preparation for the Advanced Placement Exam in 11th grade. Class size ranges from 17 to 25 students" (Merion High School Course Catalog, p. 27).

English 11 "is designed to meet the standards for college-bound and vocation-bound students who have average and above-average language arts skills. Students will study cultural diversity in American literature from early American mythology to twenty-first century works. Students will study grammar skills, vocabulary terms and spelling, become familiar with literary genres and terms through the study of short stories, drama, various novels, poetry, and an emphasis on informational text. Students will read selected novels, complete research, and work in collaboration with classmates on presentations/projects and write using a variety of formats. Class size ranges from 20 to 25 students" (Merrion High School Course Catalog, p. 27).

English 11 Advanced Placement "is designed for the college-bound student who is willing to strive to meet high standards and to prepare the student for the National Advanced Placement English Language and Composition Exams are given in May. This is primarily a course in both effective and persuasive writing and critical reading of non-fiction and fiction prose written in a variety of periods, disciplines, and rhetorical contexts. Students will learn how to write effective synthesis essays, rhetorical analysis essays, and persuasive essays while studying several novels. Students registering for this class need to realize considerable individual responsibility and effort are required. Class size ranges from 18 to 23 students" (Merrion High School Course Catalog, p. 27).

English 12 "is designed to meet the standards for college-bound and vocation-bound students who have average and above-average language arts skills. The literary focus is on various genres of British and world literature, including fiction, nonfiction, and poetry, as well as 21st century skills to include group work, technology integration and practice as well as problem solving. The course will also focus on higher level paper writing skills, analysis of literature, study and practice of vocabulary words, and intensified study of grammar application. Group discussion, speaking, listening, and thinking skills will also be emphasized. Students will do research, write, and present with a sustained focus on informational text; this may include essays, creative writing, career development, and technical writing and will include the study of various novels. Class size ranges from 18 to 25 students" (Merrion High School Course Catalog, p. 28).

English 12 Advanced Placement "is designed to prepare students for the National Advanced Placement English Literature and Composition. Exams are given in May, and the course is comparable to a Freshman Composition II college literature course. Students are expected to have advanced reading and solid analytical writing skills upon entering the class. Students will read and analyze diverse, advanced literature as well as poetry, and analyze the reading selections through extensive writing and discussion. Students registering for this class need to realize considerable individual responsibility for the amount of reading and writing required to meet the stringent expectations of the course and will include unannounced quizzes, timed writings, and a sustained, rigorous pace. Students can anticipate a high degree of outside concentration on topics and reading

material including weekend assignments and homework each evening. Class size ranges from 20 to 25" (Merrion High School Course Catalog, p. 28).

Language Arts Lab "provides instruction in basic language skills, reading, writing, speaking, and listening while placing great emphasis on individual student progress. Course content depends upon student abilities upon entrance into the course, and may include vocabulary building, spelling and grammar, writing and composition, reading silently or aloud, and improving listening and comprehension abilities. The course is implemented through the use of the Read 180 reading program. This course is taken concurrently with an English course. Class size ranges from 9 to 15 students" (Merrion High School Course Catalog, p. 29).

Please note: This lab course, which is taught by a reading specialist, is required for students identified as nearing proficiency in order to improve their reading levels. Placement in this course is based on results of the *Gates/MacGinitie Diagnostic Reading Assessment* and teacher recommendations. Students receive an elective credit for this course and are enrolled in a required English language arts course at the same time.

Participant Demographics

The participants for this study included five English language arts teachers at Merrion High School who provided Tier 1 and/or Tier 2 reading interventions in the courses that they taught. Sally (pseudonym) taught an English language arts course for Grade 9 students and an English as a Second Language (ESL) course for Grade 9 students. Sally had been employed at Merrion High School for 4 years and had taught Medieval Studies and Rhetoric for 18 years at a local community college. Sally also

taught English Language Arts on the reservation for the Bureau of Indian Affairs. She had completed a bachelor of art degree and a master's degree in English and history with minors in medieval studies and rhetoric as well as certification in Teachers of English to Speakers of Other Languages (TESOL).

Susan (pseudonym) taught an Honors English Language Arts course for Grade 10 students, two Advanced Placement (AP) English Language Arts courses for Grade 11 students and three English Language Arts courses for Grade 9 students. Susan had been employed at Merrion High School for 12 years. Susan had earned a master's degree in secondary English education. During the 2015-2016 year, Susan shared the chairperson position for the department with Louise.

Louise (pseudonym) taught four Grade 10 English honors courses, one Grade 12 English Advanced Placement course, and one English 12 course during the 2014-2015 school year. Louise had been employed at Merrion High School for 10 years, but had been teaching for 21 years. During the 2015-2016 year, Louise shared the department chairperson position with Susan. Louise had earned an associate's degree in liberal arts for Grades K-8 and a master's degree in liberal arts for Grades K-12.

Mary (pseudonym) taught two Grade 12 English language arts courses and four Grade 10 English language arts courses during the 2014-2015 school year. Mary had taught at the high school for 14 years and had earned a master's degree in English education with an endorsement in TESOL.

Priscilla (pseudonym) taught four Grade 10 English language arts courses, a debate course, and a journalism course for the 2014-2015 school year. Priscilla had

taught at Merrion High School for 4 years and had earned a bachelor of arts degree in communication and information sciences with an emphasis in journalism. Priscilla was also TESOL certified.

The five English language arts teachers selected for this study taught multiple courses. In addition, I planned to interview a reading teacher who was a member of the English language arts department for this school. However, a new reading teacher had been hired for the 2015-2016 school year when I began the data collection process, and that new reading teacher declined to participate in this study. In addition, the six new teachers who were hired in the summer of 2014 chose not to participate because they were focused on starting their new jobs.

Data Collection

For this single case study, I collected data from multiple sources. One source was the individual interviews that I conducted with five teachers in the English language arts department at Merrion High School. In addition, I conducted one observation of a Tier 1 and/or Tier 2 reading intervention in each of the classrooms of these teachers. I also collected teacher responses to specific questions in a reflective journal submitted by e-mail that asked them to comment on the professional development they had received in relation to the RTI model that they had implemented for the past few years. In addition, I collected documents related to the English language arts program, including the state standards in reading for students in Grades 9, 10, 11, and 12; state and district RTI documents; the *Educational Plan for Student Success*, which was the school program improvement plan that the State Department of Education mandated; state reading

assessment data from 2011 to 2014; and descriptions of professional development activities.

Interviews

In June, 2015, I received approval to collect data for this study. Therefore, in July, 2015, I conducted interviews with four English language arts teachers at the local library and with one English language arts teacher in her high school classroom during non-instructional hours. I audio-taped all interviews. I conducted the first interview with Sally on July 14, 2015 at 12:30 p.m. at the local library. The interview was 45 minutes. I conducted the second interview with Susan on July 14, 2015 at 1:30 p.m. at the local library. This interview was 35 minutes. I conducted the third interview with Louise on July 14, 2015 at 2:30 p.m. at the local library. The interview was 40 minutes. I conducted the fourth interview with Mary on August 11, 2015 at the local library at 1:00 p.m. The interview was 45 minutes. I conducted the fifth interview with Priscilla on September 3, 2015 at 11:30 a.m. in her high school classroom. The interview lasted 35 minutes.

Observations

Following the interviews, I conducted observations of instructional reading lessons that these five English language arts teachers conducted in their classrooms at Merrion High School. I conducted the first observation with Sally on September 3, 2015 at 8 a.m. in Room 203 for 50 minutes, for the Grade 9 ESL course that included both Tier 1 and Tier 2 reading interventions. I conducted the second observation with Susan on September 3, 2015 at 9 a.m. in Room 202 for 50 minutes, for a Grade 10 English language arts course that involved both Tier 1 and Tier 2 interventions. I conducted the

third observation with Louise on September 3, 2015 at 10 a.m. in Room 201 for 50 minutes, for a Grade 12 AP English language arts course that involved only Tier 1 interventions. I conducted the fourth observation with Priscilla in Room 309 for 35 minutes at 11:15 a.m., for a Grade 10 English language arts course that involved Tier 1 and Tier 2 interventions. I conducted the fifth observation with Mary at 2:00 p.m. in Room 207 for 50 minutes on September 3, 2015, for a Grade 11 English language arts course that involved Tier 1 and Tier 2 reading interventions.

Reflective Journals

Following the interviews, I emailed each participant the reflective journal questions, which they returned to me within 4 weeks. I e-mailed the reflective journal questions to Sally on July 15, 2015 after the interview and received her responses on August 14, 2015. I e-mailed the reflective journal questions to Susan on July 15, 2015 and received her responses on August 16, 2015. I e-mailed the reflective journal questions to Louise on July 15, 2015 and received her responses on August 18, 2015. I e-mailed the reflective journal questions to Mary on August 11, 2015 and received her responses on August 12, 2015. I e-mailed the reflective journal questions to Priscilla on September 3, 2015 and received her responses on September 4, 2015. I conducted the majority of the interviews during the summer when school was not in session so reflective journal responses were not returned as quickly as they might have been during the school year.

Documents

The documents I collected included (a) the state standards in reading for students in Grade 9, 10, 11, and 12, which I collected July 1, 2015 from the school district website, (b) the state RTI framework and guidance manual, which I collected in September, 2015 from the state website, (c) the district RTI framework and curriculum handbook, which I collected in September, 2015 from the district website, (d) the *Educational Plan for Student Success*, which was the revised school improvement plan that included goals and action steps related to reading interventions for students in Grades 9-12, which I collected on August 30, 2015 from the school website, (e) 3 years of state reading assessment data that I collected from the State Department of Education website on September 15, 2015, (f) and professional development activities related to RTI, which I collected on September 15, 2015 from the board minutes of August 24, 2015, which are located on the high school website. I was not able to collect samples of curriculum-based measures that teachers used in the classroom to assess student progress in Tier 1 and Tier 2 reading interventions because educators were transferring from Achieve 3000 to a new computer-based intervention system called FLEX during the time of data collection.

Level 1 Data Analysis

For Level 1 data analysis, I first transcribed and coded all of the interview data, the observation data, and the reflective data, using line-by-line coding that Charmaz (2006) recommended for qualitative research. I used a content analysis for the documents, in which I described the purpose, structure, content, and use of the

three types of documents that I collected. I used the constant comparative method that Merriam (2009) recommended to construct categories for all of these data sources. I also created summary tables of the categories that I constructed for each data source.

Interview Data

The first interview question asked, *"How do you define the difference between Tier 1 and Tier 2 interventions in reading?"*

Participants struggled to define the difference between Tier 1 and Tier 2 interventions in reading. Sally, who taught Grade 9 English courses, noted,

> It might be more . . . background knowledge, which was considered to be a Tier 1 intervention, and a Tier 2 intervention was more individualized when it came to actual reading. This is where I would draw the difference between Tier 1 and Tier 2 interventions.

Sally believed that she understood the differences, but the terms were not familiar to her. However, Susan, who taught Grade 9, 10, and 11 English courses, believed that Tier 1 interventions involved whole classroom instruction whereas Tier 2 interventions were individualized. Louise, who taught Grade 10 and 12 English courses, believed that students who were struggling with reading were in need of Tier 2 interventions that the reading teacher implemented in the Language Arts Lab course. Mary, who taught Grade 10 and 12 English courses, noted, "To me an intervention is an intervention." Priscilla, who taught Grade 10 English courses, added, "I'm not sure how to address the levels between Tier 1 and Tier 2." Thus, participants did not clearly define the difference

between Tier 1 and Tier 2 reading interventions. Only Sally and Susan described some differences between Tier 1 and Tier 2 reading interventions.

The second interview question asked, "*How do you determine student placement in Tier 1 reading interventions in your classroom?"*

Teachers reported using different diagnostic assessments to determined Tier 1 student placement in their classrooms. In relation to the Grade 9 English course for ESL students, Sally noted, "I hand pick my ESL students [for course placement] using the ACCESS scores, which are the language proficiency scores from eighth grade." In relation to the standard English language arts courses, however, teachers used other measures. Susan reported using informal assessments to place students in Tier 1 interventions, adding, "Achieve 3000 . . . helped all students recognize that they were lacking in vocabulary." In these courses, Louise used grade point average, the *Gates MacGinitie Diagnostic Reading Assessment,* and a vocabulary test to obtain a clear picture of student performance in reading. Mary also used informal observations to determine student placement, as did Susan. In addition, Mary reviewed writing samples, and both Mary and Priscilla reviewed results on the *Gates MacGinitie Diagnostic Reading Assessment* to determine placement in classroom reading interventions. Thus, teachers used both formal and informal assessments to identify students who needed additional support in reading in their classrooms.

The third interview question asked, "*How do you determine student placement in Tier 2 reading interventions in your classroom?"*

Teachers also used a variety of diagnostic assessments to determine student placement in Tier 2 reading interventions. In relation to the Grade 9 English course for ESL students, Sally stated, "I will run a lexile diagnostic, a literary diagnostic, and a writing narrative diagnostic. Usually by Week 2, I can determine who needs the most help." Sally believed that the computer-based program, known as Achieve 3000, provided excellent baseline data on student performance in reading to help her determine placement in Tier 2 reading interventions. Susan also used the Achieve 3000 program to identify students with lower vocabulary skills and lower reading comprehension scores for placement in Tier 2 interventions. Louise, on the other hand, referred those students who scored lowest on the *Gates MacGinitie Diagnostic Reading Assessment* to the Language Arts Lab for Tier 2 reading interventions. Mary referred students who scored D or below in the Achieve 3000 program to the Language Arts Lab course for Tier 2 interventions. Priscilla did not describe how she determined placement in Tier 2 interventions, but noted that she worked individually with students who were not proficient in reading. Thus, three of the five teachers used the Achieve 3000 program to determine placement in Tier 2 reading interventions because it provided weekly progress reports.

The fourth interview question asked, "*How do you scaffold instruction for Tier 1 reading interventions in your classroom?"*

Teachers described a variety of strategies that they used to scaffold instruction for Tier 1 reading interventions in their classrooms. State and district RTI documents indicated that this scaffolding was part of a state mandate to provide Tier 1 interventions

in reading at the earliest point possible when academic or behavior difficulties first arise. These documents also indicated that teacher use of differentiated instruction and teacher analysis of student performance data should drive these Tier 1 interventions. Sally reported using such instructional scaffolding strategies as displaying a word wall, presenting a history lesson as prior knowledge before students began reading a novel in order to improve comprehension, requiring students to maintain a vocabulary journal, and presenting a daily oral language activity. Susan also reported accessing the background knowledge of students before beginning lessons, reviewing vocabulary prior to beginning reading instruction, and analyzing novel characters with students during reading instruction. In contrast, Louise reported using a Socratic seminar format to scaffold reading instruction, adding,

> It's kind of cool because it gets to the point where at the beginning I will tell the kids that they should really read about some history and background information about the writers, and they come to the point where they catch up on that themselves, and I don't have to even have to ask them.

Mary reported using the Achieve 3000 program to scaffold reading instruction. Mary noted that students were expected to read 40 articles within a certain period of time, but students did not have enough time in class to complete these articles. Mary believed that students would demonstrate greater improvement in their reading skills if the Achieve 3000 intervention plan provided more time. Priscilla, on the other hand, presented instruction both visually and verbally in order to address different learning styles. Priscilla also reported using repetition to explain

concepts so students could improve their understanding of the reading material. Thus, teachers used multiple strategies to scaffold instruction for struggling readers, such as presenting curriculum visually and verbally, using the Achieve 3000 program, accessing prior knowledge, and using repetition to explain complex concepts.

The fifth interview question asked, "*How do you scaffold instruction for Tier 2 reading interventions in your classroom?"*

Teachers also described a variety of strategies that they used to scaffold instruction for Tier 2 reading interventions in their classrooms. State and district RTI documents indicated that Tier 2 interventions should provide supplemental, strategic, and individualized support for students at risk for reading who do not respond to Tier 1 instruction. Therefore, in the Grade 9 English course for ESL students, Sally used the word wall with the entire class and worked individually with ESL students who needed additional instruction in vocabulary. Sally added,

> I use manipulatives such as word sentences when a student [does] not understand the word wall presentation, but I will use a sentence with the word and have the student individually put the sentence together and present ten new vocabulary words per week.

Sally also reported providing ESL students with extra time if needed and making sure that all students understood the concepts before moving on to the next concepts. Sally also presented Tier 2 reading intervention instruction in both Spanish and English for ELS students in small group settings, particularly in

relation to introducing new vocabulary. Susan reported using essential questioning as a scaffolding strategy to help students improve their reading comprehension skills and meeting individually with students as needed. Louise placed identified Tier 2 students into small groups, using the Socratic seminar to ask questions in order to help students improve their reading comprehension skills. Louise also used high interest reading selections and peer-to-peer reading for students who needed additional support. Mary reported that if a student was struggling with reading comprehension, she reduced the number of comprehension questions for that student as a modification. Priscilla reported scaffolding Tier 2 intervention instruction by providing additional examples and giving some students text at a lower reading level. Thus, these teachers modified instruction by working with identified students in small group settings, providing additional examples, modeling, reducing the number of questions to answer in a written assignment, using the Socratic seminar to ask comprehension questions, and providing additional time to complete assignments.

The sixth interview question asked, "*How do you monitor student progress in Tier 1 reading interventions?"*

Teachers reported that they used a variety of strategies to monitor student progress in Tier 1 interventions. Sally reported checking for student understanding of the six elements of fiction by asking students to analyze their reading selections according to setting, plot, character, conflict, symbol, and point of view. As part of daily oral instruction, Sally also reported monitoring student progress by asking students to diagram

sentences in order to demonstrate their understanding of the function of words in a sentence and how to create a cohesive sentence. Sally also used spelling tests and vocabulary tests to monitor student progress in Tier 1 reading interventions. Susan reported using Achieve 3000 data to monitor student progress in reading because she believed these reports were specific in suggesting more difficult passages if students demonstrated improvement in easier passages. Louise reported using reading passages from Jamestown Publishers, each followed by recall and multiple choice questions. These passages were interesting to students, and they could review their weekly progression in oral reading fluency. Mary reported using a word wall to monitor student progress in Tier 1 reading interventions. Mary also used the Marzano six step program for vocabulary development to monitor student progress by (a) providing a description, explanation, or example of the term; (b) providing a linguistic definition where students restate the description, explanation, or example in their own words; (c) providing a non-linguistic definition where students construct a picture, pictograph, symbolic representation, or act out the term; (d) extending and refining understanding of the word by engaging students in activities that help them add to their knowledge of the terms in vocabulary notebooks; (e) asking students to discuss the terms with one another; and (f) involving students in games that enable them to play with the terms and reinforce word knowledge. In addition, Mary sometimes asked students to draw pictures to show mastery of vocabulary words because some students were visual learners. Priscilla relied on the Achieve 3000 program for student progress reports in reading. Priscilla also described constant monitoring of student progress by asking students to respond to critical thinking questions, requiring

frequent writing assignments, and administering weekly vocabulary tests. Thus, teachers described a variety of strategies that they used to monitor student progress in relation to Tier 1 reading interventions, such as checking for understanding of the six elements of fiction in their analyses of reading selection, asking students to diagram sentences to demonstrate their understanding of the function of words in a sentence, administering weekly spelling and vocabulary assessments, requiring students to answer recall questions related to multiple reading passages, using Achieve 3000 reading progress reports, and using a six step approach to vocabulary development.

The seventh interview question asked, "*How do you monitor student progress in Tier 2 reading interventions?"*

Teachers also described a variety of strategies that they used to monitor student progress in Tier 2 reading interventions. Sally reported assessing oral reading fluency by asking students to read passages and recording their words per minute every week on a chart. Sally also reported administering two different reading comprehension tests, one for non-proficient readers with fewer questions that assessed the same skills and the other for proficient readers , which gave them a chance to achieve success at their individual skill level. Susan reviewed reading progress weekly with individual students, examining in particular their results on Achieve 3000. Louise reported using assessments published by Pearson in order to assess reading comprehension skills in addition to using district assessments that were accessible through SchoolNet, which was a formative assessment bank. Mary expressed frustration with the decision that district educators had made to stop

using Achieve 3000 for Tier 2 reading interventions. Mary believed that Achieve 3000 offered a wide variety of reading selections and encouraged frequent assessment of student progress. However, for the 2015-2016 school year, district educators had decided to implement the FLEX program, but no one had yet received training in this system. In contrast, Priscilla monitored student progress by observing students who did not turn in work and did not show progress. Priscilla met individually with these students so that they understood what they needed to do in order to improve their progress. Thus, teachers reported using a variety of strategies to monitor student progress in Tier 2 reading interventions, such as assessing the oral reading fluency of identified students, conducting a weekly review of individual student progress, reviewing reading progress reports from Achieve 3000, using the district assessment bank to access and use various reading assessments, and meeting individual with students who were not showing progress.

The eighth interview question asked, *"How do you scaffold assessments in Tier 1 reading interventions in your classroom?"*

Teachers reported that they used a variety of strategies to scaffold assessments in Tier 1 reading interventions. Sally, who taught a Grade 9 English course for 13 ESL students, responded,

> In Tier 1 assessments, the students are tested 3 times a year for reading lexiles, using the Achieve 3000, which is a computer testing system with audio available both in English and Spanish. The English was a much

shorter version. If they do not get 75% or higher, then they are automatically differentiated within the classroom setting.

Sally believed that this method of scaffolding assessments for Tier 1 reading interventions in the classroom also demonstrated consideration for the learning needs of Spanish speaking students. In contrast, in her general education courses, Susan used "Kahoot It," which is an interactive social media game website that assists teachers in creating informal or formative assessments in reading. This website assists teachers in designing assessments to help students practice specific reading skills and concepts. Louise met with students individually to provide them with an opportunity to present their answers orally in order to show mastery of a concept or skill. Mary used Achieve 3000 and the Pearson assessment bank to scaffold assessments for students in Tier 1 reading interventions. Priscilla reported offering options to students, such as painting a picture or writing a song, to demonstrate their mastery of a concept or skill. Thus, teachers reported using a variety of strategies to scaffold assessments, such as reviewing the Achieve 3000 reading reports with students, drawing on the Pearson assessment bank, using social media websites to help them design assessments, and meeting individually with students to give them an opportunity to show mastery of concepts.

The ninth interview question asked "*How do you scaffold assessment in Tier 2 reading interventions in your classrooms?"*

Teachers also reported that they used a variety of strategies to scaffold assessments in Tier 2 reading interventions in their classrooms. As an ESL

instructor, Sally reported using Achieve 3000 assessments to monitor progress for smaller groups of students. Sally sometimes found that Spanish speaking students needed the Spanish version of the assessments. Susan modified writing assignments for some students who needed more practice in developing writing and critical thinking skills so that the vocabulary was more understandable and that the instructions could be more easily understood. Louise reported asking students to color code the main ideas in a complex text in order to help them understand the ideas. Louise also used verbal assessments because some students were only able to demonstrate mastery by explaining their answers instead of writing them. Mary did not describe any strategies for scaffolding assessments in Tier 2 reading interventions, but instead expressed frustration with student writing assessments. Priscilla reported scaffolding Tier 2 reading assessments by asking students to read aloud in small groups to demonstrate their reading comprehension skills. Thus, teachers used different strategies for scaffolding Tier 2 reading assessments, depending on the skill level of the students.

Table 3 presents a summary of the categories constructed for the interview data.

Table 3

Summary of Categories from Analysis of Interview Data

Interview Question	*Categories*
IQ 1: Definitions	Struggling to define differences between Tier 1&Tier 2 Defining Tier 1 as whole class instruction Defining Tier 2 as small group instruction

	Defining Tier 2 as individualized instruction
IQ 2: Tier 1 placement	Using ACCESS scores for ESL students Using Achieve 3000 reading levels Reviewing grades in reading Assessing writing samples related to reading selections Using Gates MacGinitie scores to determine reading levels
IQ 3: Tier 2 placement	Determining reading levels from state assessments Assessing writing samples related to reading selections Using Achieve 3000 reading levels Using Gates MacGinitie scores to determine reading levels
IQ 4: Tier 1 instruction	Using a word wall to teach vocabulary words Discussing historical background prior to novel reading Conducting daily oral language activities Analyzing structure/function of vocabulary words Asking critical thinking questions in Socratic seminars Using Achieve 3000 stories at individual reading levels Presenting information verbally and visually
IQ 5: Tier 2 instruction	Working with students in small group settings Meeting individually with non-proficient readers Asking students to color code main ideas in complex text Providing extra time to analyze text Using six-step vocabulary process Presenting instruction in Spanish and English Using peer-to-peer pairing for reading activities Reducing number of comprehension questions Providing additional examples Diagramming sentences to understand function of words
IQ 6: Monitoring Tier 1 interventions	Using fiction elements to analyze stories Administering spelling tests Using Marzano's six step vocabulary development process Reviewing Achieve 3000 reading reports Asking recall questions about reading selections Asking critical thinking questions about reading selections
IQ 7: Monitoring Tier 2 interventions	Assessing oral reading fluency Modifying tests for non-proficient readers Reviewing Achieve 3000 monitoring reports Using SchoolNet assessment bank Monitoring students who do not turn in work
IQ 8: Tier 1 assessments	Reviewing reading lexiles 3 times a year Using Kahoot IT to assess critical thinking Accepting oral rather than written answers

	Using SchoolNet assessment bank
IQ 9: Tier 2 assessments	Using Achieve 3000 reading assessments Using Spanish to translate assessments Revising writing assessments Asking students to color code complex text Accepting verbal as well as written responses Asking students to read aloud to show mastery

Observation Data

For this study, I conducted one observation of an instructional lesson in reading for each of the five English language arts teacher that I interviewed. For these five observations, I adapted the six criteria that Merriam (2009) recommended for conducting observations for qualitative research. These criteria included the intervention setting, classroom participants, instructional activities, intervention scaffolding, student engagement, and researcher's presence.

Classroom setting. The classroom environment was analyzed in relation to the following sub-criteria: (a) instructional space, (b) print and non-print materials, and (c) technology.

In relation to the use of instructional space, teachers designed classroom space to implement both large and small group intervention instruction in reading. For the Grade 9 English class for ESL students, Sally created two rows of six desks facing each other and four desks opposite the teacher desk, forming an oval in order to review each student's work and address individual needs as quickly as possible. In contrast, for the Grade 10 English language arts class, Susan placed 28 desks facing the teacher's desk in the front in order to present instruction in the form of a lecture on that particular day. For the

Grade 12 AP English language arts class, Louise divided 23 desks into 2 sections facing each other in order to hold Socratic seminar discussions. For the Grade 11 English language arts class, Mary arranged 20 desks in two rows with the teacher desk in the middle of her Grade X classroom in order to check student journals daily. Priscilla divided 31 desks for the Grade 10 English language arts class into 2 sections facing each other in order to observe student progress during instruction.

Concerning print and non-print materials, for the Grade 9 English class for ESL students, Sally used Reality Central books and writing journals, which were considered Tier 2 instructional materials designed for non-proficient readers. Literature textbook classroom sets and grammar classroom sets were also present in the room as well as a small satellite library with 25-30 fiction and non-fiction paperback books for independent reading. These same materials were also present in all of the other English language arts classrooms. Teachers were required to include these classroom sets of textbooks and grammar books because they were aligned with the Common Core State Standards.

Several different types of technology tools were present in the observed classrooms, including projectors, an interactive whiteboard, and laptop computers. A projector was present in Sally's and Susan's classrooms, but they were not used during the observations. In contrast, Mary used a projector to display the journal topic for the day. Students were required to bring their laptop computers to class daily. An interactive whiteboard and a projector with a laptop for teacher use was also evident in Louise's classroom but not in use. Similar to the other teachers, a projector was visible in Priscilla's classroom but was not used during the observation. Instead, Priscilla used a

laptop computer to present an audio version of a short story to the students. Priscilla also asked students to use their individual laptop computers to access a critical thinking activity on the online homework system. Thus, technology tools played an important, but not dominant role, in supporting instruction in these classrooms.

Classroom participants. Table 4 presents a summary of the intervention participants in relation to the sub-criteria that includes (a) the number of male students,(b) the number of female students, and (c) the number of adults who were present in each classroom during the observations.

Table 4

Summary of Classroom Participants

Participants & Grade Level Courses	Male	Female
Sally: Grade 9 ESL	5	8
Susan: Grade 10 ELA	14	8
Louise: Grade 12 AP ELA	8	13
Mary: Grade 11 ELA	7	9
Priscilla: Grade 10 ELA	13	8

As Table 4 indicates, the class size ranged from 13 to 22. The total number of male students was 47 in comparison to the total number of female students, which was 46. In all classrooms, the teacher was the only adult present in the classroom. The reading specialist and special education teachers were not present during the observations.

Tier 1 interventions. Tier 1 instructional activities, which the RTI model defined as differentiated instruction for all students, were analyzed in relation to the sub-criteria

of (a) lesson objectives, (b) instructional strategies, and (c) formal and informal assessments.

In Sally's Grade 9 English class for ESL students, the lesson was about writing a summary paragraph for a short story. The objectives were as follows: (a) to write a summary paragraph for a short story in their journals, (b) to present multiple meanings of the word "elated", which was used in the story. In relation to instructional strategies, Sally first wrote the word "elated" on the board and then defined it. Sally asked students to use the word in sentences that they created. Sally also asked students to write short paragraphs about the main character in a story titled "Riding the Waves." In relation to progress monitoring, Sally walked around the classroom to check students' progress on this task.

In Susan's Grade 10 English language arts class, the lesson was about analyzing complex text. The objective was to analyze a short story using the title, author, genre, tone, and theme (TAGTT) strategy. However, Susan first asked students to complete the vocabulary portion of the *Gates/MacGinitie Diagnostic Reading Assessment,* and she answered individual questions as they completed the test, which took 25 minutes. Following completion of the test, Susan first reviewed the story "If You Had Three Wishes," using the TAGTT strategy and asked students who did not respond to give insight into the story. Susan also reviewed the terms *flashback, exposition*, *rising action*, and *climax* as they related to the story. In relation to progress monitoring, Susan called on unresponsive students to answer critical thinking questions about the short story.

A substitute taught a lesson in Louise's Grade 12 AP English language arts classroom about the novel *Song of Solomon,* a novel by Toni Morrison. The objectives included (a) to answer critical thinking questions in relation to the novel (b) to complete the infographic projects posted on the online homework system. In relation to instructional strategies, students were asked to complete a short answer test for *Song of Solomon*. Concerning progress monitoring, the substitute walked around the room and held discussions with small groups of students, answering specific questions about the test. Students were asked to complete the short answer test on the computer and submit to the substitute teacher by e-mail.

In Mary's Grade 11 English language arts class, the lesson was about the novel *The Secret Life.* The objectives included (a) to practice writing a well-developed paragraph about a journal topic; (b) to review specific reading comprehension questions for the novel *The Secret Life*; (c) to continue reading the novel; (d) to complete a figurative language handout about literary devices used in the novel. In relation to instructional strategies, Mary asked students who had not completed the worksheet to leave the classroom so she could review the answers with students who had completed the worksheet. This strategy gave other students additional time to complete the assignment. Mary also modeled the correct answers so students could understand expectations for future assignments. In relation to progress monitoring, Mary checked the writing journals for assignment completion and also walked around the classroom to check that students had completed their assignment.

In Priscilla's Grade 10 English language arts class, the lesson was about the short story *The Gift of the Magi*. The lesson objectives included (a) to describe the characters in the short story; (b) to finish listening to the short story; (c) to complete critical thinking questions about the short story. In relation to instructional strategies, Priscilla reviewed the short story characters in a whole group discussion. In relation to progress monitoring, Priscilla walked around the room checking that each student was able to access and understand the assignments on the online homework system. Priscilla also checked that students had answered reading comprehension questions individually on their laptop computers.

In summary, observations of Tier 1 interventions in the classroom revealed that English language arts teachers presented lesson objectives that were matched to the state standards. Teachers also were also observed using differentiated instructional strategies for all students, including continually adjusting lesson content to meet students' needs, grouping students by ability, and monitoring and assessing student learning using formative assessments. Only one teacher was observed addressing learning styles.

Tier 2 interventions. Tier 2 intervention instructional activities, which the RTI model defined as individualized instruction and frequent progress monitoring for students identified as not proficient in reading, were analyzed in relation to the sub-criteria of (a) diagnostic assessments, (b) scaffolding instruction, and (c) progress monitoring.

In the Grade 9 English class for ESL students, Sally did not use formal diagnostic assessments during the observation of intervention instruction. However, Sally did use informal assessments to diagnose student readiness to learn by observing students

complete their summaries of the short story. In relation to scaffolding instruction, Sally modified instruction for individual learners who needed additional support by meeting individually one-on-one with a Spanish speaker and her friend. Sally allowed more time for students who had not completed the assignment. Sally used sentence diagramming to help students understand the function of words in a sentence. Sally also used the pair/share strategy by asking students to work with a partner in writing the title of their summary paragraph and the first two sentences. In relation to progress monitoring, Sally reviewed the work of each individual student as they completed it. Sally also gave a new student a Reality Central book and met with him individually to discuss his progress. Sally also asked for a show of hands to determine if students were ready to move on to the next part of the lesson.

In the Grade 10 English language arts class, Susan used a formal diagnostic assessment by administering the *Gates/MacGinitie Diagnostic Reading Assessment* to all students during the first part of the instructional period. In relation to scaffolding instruction, Susan used essential questioning when calling on individual students in order to improve their critical thinking and reading comprehension skills. Susan also gave students extra time to respond to these questions. Susan reviewed each of the TAGTT strategies to make sure students understood what each term meant. In relation to progress monitoring, Susan walked around the room to make sure students were focused on completing the test.

The substitute teacher in Louise's Grade 12 AP English language arts classroom did not use any formal or informal diagnostic assessments to determine student readiness

to learn. In relation to scaffolding instruction, the substitute teacher modified instruction for students who needed additional assistance by defining terms that students did not know and by pairing students who understood the assignment with those who did not understand the assignment. In relation to progress monitoring, the substitute teacher walked around the room checking on students' work and making sure they had accessed the correct website.

In the Grade 11 English language arts class, Mary used an informal diagnostic assessment to determine student readiness to learn. Mary began the lesson by reviewing the assignment that students were required to complete about a short story titled *The Secret Life*. Mary walked around the classroom to assess student readiness for this review. In relation to scaffolding instruction, Mary modeled step-by-step how the figurative language handout should be completed. Mary also reviewed critical vocabulary so the students understood the questions. In relation to progress monitoring, Mary walked around the classroom to check on individual student progress in relation to completing the figurative language handout and the critical thinking reflective questions that she had reviewed. She also met individually with some students to discuss their progress in more detail.

In the Grade 10 English language arts class, Priscilla did not use formal diagnostic assessments to determine student readiness to learn. However, in relation to an informal diagnostic assessment, Priscilla reviewed the term *infe*r and checked that students understood the meaning of the word before moving on to the next instructional activity. Students then finished listening to the audio version of the story. In relation to scaffolding

instruction, Priscilla reviewed the characters in the story and the meaning of the title. Following this review of the story, Priscilla asked students to answer critical thinking questions about the story using their laptop computers. In relation to progress monitoring, Priscilla walked around the room making sure that individual students were doing their work while talking to some students about their missing assignments.

In summary, for Tier 2 reading interventions, English language arts teachers were observed using both formal and informal diagnostic assessments to determine readiness to learn for all students and particularly for students not proficient in reading. They also individualized instruction by meeting with individual students not proficient in reading, giving them extra time to complete assignments, and working with them in small group settings. Teachers also frequently monitored the progress of students not proficient in reading by walking around the room to observe their completion of tasks and by conducting weekly oral fluency timed readings.

It is important to note that the reading specialist was also responsible for implementing Tier 2 reading interventions using the Read 180 program. However, the newly assigned reading specialist chose not to participate in this case study, as stated earlier. In addition, educators in this district had recently made a decision to replace the Read 180 program and the Achieve 3000 program with a new computer-based intervention program called FLEX for Tier 2 reading interventions that the new reading specialist was required to implement. Educators had also selected System 44 by Scholastic to be used for Tier 3 reading interventions that the reading specialist and/or the special education teacher was required to implement. The special education teacher also

maintained individual education plans (IEP) for students that aligned plan objectives with RTI instruction. However, the FLEX program was not implemented during the time this study was conducted.

Student engagement. This observation criterion was analyzed in relation to the following sub-criteria: (a) conversation between students and teacher and (b) conversations among students.

In the Grade 9 English class for ESL students, Sally supported student engagement in learning by greeting students as they walked into the classroom. In the discussion of each stage of the assignment, Sally called on individual students to answer questions, sometimes more than once, because the class size was small. During the oral daily oral language activity, ESL students actively engaged with Sally about how to use the word *elated* in different ways. Some conversation occurred among students when they were asked to share the titles of their summaries and the beginning of their paragraphs. Students also shared their negative attitudes toward writing openly and honestly. Some students were off task during the pair/share activity, however, because they talked about topics unrelated to the lesson while Sally gave individual attention to some of the non-proficient readers.

In the Grade 10 English language arts classroom, Susan did not engage with students during the administration of the *Gates MacGinitie Diagnostic Reading Assessment*. After the administration of the test, however, interaction between the teacher and students increased because they reviewed the TAGTT strategy before students applied it to the current reading assignment. In the discussion of each TAGTT element,

Susan called on students to answer critical thinking questions about the story. Students were engaged during the entire lesson.

During the observation of instructional activities in the Grade 12 AP English language arts class, student engagement in the instructional lesson was also evident. The substitute teacher gave instructions about the assignment to students at the beginning of the class period. Some students shared ideas about their assignment with their peers during the class period. Students conversed with each other at the beginning of the class period, but they were focused on completing their assignments throughout the lesson.

In Mary's Grade 11 English language arts class, not all students were engaged in the lesson. At the beginning of the lesson, Mary asked students if they had completed their assignments and discovered that some students had not. Mary asked those students to complete their assignments in the hallway while she worked with those students who had completed their assignment. Not all students were engaged in this activity. Some students played on the computer, and some students did not read as requested. Some students engaged in unrelated conversations with each other while Mary reviewed answers to the assignment questions. However, Mary engaged some students by meeting individually with them to make sure they had the correct answers to the assignment.

In Priscilla's Grade 10 English language arts class, students were engaged in the lesson. Priscilla led a discussion on the short story by asking essential questions about the story and characters. Priscilla kept students engaged by calling on different students to answer reading comprehension questions. Students were focused on completing their assignments. Priscilla checked for understanding at each point of the discussion. A few

students, however, talked to each other instead of answering critical thinking questions on the computer.

In summary, English language arts teachers engaged students in reading instruction by using several similar strategies. These strategies included calling on different students to answer reading comprehension questions, using the TAGTT strategy, using essential questioning and character analysis, and using pair/share so students could share ideas with each other.

Researcher's presence. In all of the English language arts classrooms, I sat at a desk located in the rear of the classroom because I could observe all students and the teacher from this position. I had no involvement in the intervention activities. Students were aware of my presence, but they did not interact with me.

Table 5 is a summary of the categories from an analysis of the observation data.

Table 5

Summary of Categories from Analysis of Observation Data

Criteria	*Categories*
Classroom setting	Planning small group space to conduct Socratic seminars
	Facing desks toward each other for easy access to student work
	Arranging desks to conduct a lecture
	Arranging desks to administer a test
	Using Reality Central books and journals for ESL students
	Using classroom sets of literature textbooks and grammar books
	Providing satellite reading libraries for independent reading
	Giving students individual laptop computers
	Displaying a Promethean interactive whiteboard
	Using projectors to present information visually
	Recording information on teacher laptops
Classroom participants	Noting class size ranged from 13 to 22
	Noting a balance of male and female students in most classrooms
	Noting the presence of 1 teacher in each classroom

Tier 1 instruction	
Objectives	Presenting lesson objectives that matched state standards --Writing a summary paragraph --Describing multiple meanings of a word --Completing the vocabulary portion of the Gates/MacGinitie test --Discussing and analyzing complex text using the TAGTT strategy --Answering critical thinking question in relation to the *Song of Solomon* --Completing infographic projects online --Writing a well-developed paragraph on a journal topic --Reviewing specific questions for the novel *The Secret Life* --Reading the novel silently --Completing a figurative language handout --Reviewing characters in a short story --Listening to remainder of short story --Completing critical thinking questions about short story
Instructional scaffolding	Using variety of strategies to differentiate instruction for all students --Analyzing and using word of the day in a sentence --Writing a summary paragraph about a short story --Reviewing story details using TAGTT strategy --Answering questions individually about assessments --Reviewing fiction elements related to a novel --Requiring students to complete tests on computers --Asking students to leave the classroom to complete their work --Modeling correct answers so students understood expectations --Reviewing characters in a story
Progress monitoring	Using variety of strategies to monitor progress for all students --Walking around the room to monitor student progress on assignments --Showing concern about missing assignments --Reminding students about late work --Checking student access to online homework --Answering individual questions during testing --Calling on students to answer reading comprehension questions --Checking writing journals weekly --Making sure students answer critical thinking questions --Answering specific questions about the test --Allowing students to submit work by e-mail
Tier 2 Instruction	
Diagnostic Assessments	Using formal and informal assessments to identify at risk students --Reviewing Gates MacGinitie test results --Reviewing Read 180 and Achieve 3000 reports -- Asking comprehension questions following a reading assignment --Checking for understanding of key vocabulary --Assessing writing samples related to reading selections
Instructional Scaffolding students	Using variety of strategies to individualize instruction for at risk --Meeting with individual learners as needed --Working with students in small group settings

	--Allowing extra time to complete all tasks of assignment --Using sentence diagramming to analyze function of words in sentences --Using pair/share for peer feedback --Allowing students to speak in their native language --Defining vocabulary words that students do not understand --Modeling examples of answers --Using essential questioning to help students improve comprehension --Using TAGTT strategy to help students understand elements of fiction
Progress Monitoring	Using variety of strategies to monitor progress for at risk students --Talking individually to students about missing assignments --Checking student progress on individual assignments --Monitoring individual student progress on computer work --Calling on students who typically do not participate --Conducting individual conferences to discuss progress --Conducting oral fluency timed readings for individual students
Student Engagement	Engaging students by greeting them as they enter classroom Calling on individual students to engage them in the learning Engaging students in a discussion about their feelings toward writing Noting students talking while teacher met with individual students Noting minimal engagement between teacher and students during testing Engaging students in a group discussion of TAGTT strategy Using essential questioning to engage students in group discussion Noting students often talking to each other at beginning of class Noting students engaged in completing their assignments Noting teacher redirecting students who were off -task Discovering some students had not completed their assignments Noting students playing on the computer instead of completing assignment Noting students talking to each other rather than completing assignment
Researcher's Presence	Sitting at the back of the classroom Noting no interaction with instructional activities Realizing students noticed the researcher

Reflective Journal Data

The first reflective journal question asked, "*Describe the professional development that you received about reading interventions prior to implementing Tier 1 and Tier 2 interventions in your classroom.*"

Teachers described the professional development that they received prior to implementing reading interventions in their classrooms. Sally responded by reflecting on her teaching experience on the Navajo Reservation, where she attended several training sessions on the RTI model. During that time, students were placed in Tier 2 and 3 reading interventions if they were reading at least three grade levels below the state benchmarks. From that experience, Sally learned about specific differentiated instructional strategies for Tier 1 and Tier 2 English language arts students. Sally also believed that professional development activities were too often focused on elementary school students and did not take into account the specific issues faced by high school students, such as lack of motivation, giving up on academic work, and holding jobs to support the family. In contrast, Susan responded that she received a total of 3 days of training prior to using Read 180 and System 44. The first training session included spending two days in a classroom listening to a Read 180 representative talk about how to utilize the intervention resources within Read 180. Susan added that she would have appreciated a follow-up session after using these computer-based programs, especially because she had not used an intervention program. The second training session also involved listening to a representative talk about the Read 180 and System 44 computer-based programs. Susan noted that the representative followed up the training session with emails and phone calls, but the intervention was still challenging to implement. Louise, on the other hand, could not recall receiving any training concerning Tier 1 and Tier 2 interventions. Mary and Priscilla also did not recall any professional development on Tier 1 and Tier 2 reading interventions. Thus, even though teachers did not agree on the training that they had

received about Tier 1 and Tier 2 interventions in reading, they all believed that more training would have been beneficial.

The second reflective journal question asked, "*Describe the professional development that you currently receive about Tier 1 and Tier 2 reading interventions*."

English language arts teachers also describe the professional development that they had recently received in relation to Tier 1 and 2 reading interventions. Sally described the recent adoption of a new textbook that incorporated strategies for differentiated instruction in reading. However, Sally also noted that the technology related to the new textbook was still new, and most teachers still needed time to incorporate this technology into their classroom instruction. Susan, Louise, and Priscilla reported that they did not receive training about Tier 1 and Tier 2 reading interventions. Mary reported that teachers were encouraged to use small group instruction for Tier 1 students, but she was unclear how this type of instruction could be used in a high school classroom with students who demonstrate varying levels of reading proficiency. Thus, the majority of teachers reported that they had not currently received any training regarding Tier 1 and Tier 2 reading interventions.

The third reflective journal question asked, "*What professional development do you believe high school English language arts teachers need in order to effectively implement Tier 1 and Tier 2 reading interventions in the classroom?"*

English language arts teachers expressed strong opinions about the professional development they believed was needed in order to effectively implement reading interventions in their classrooms. Sally reported that she

received little training regarding how to teach reading to high school students. Sally obtained a TESOL endorsement on her own and believed that it was the best professional development in reading that she had ever received. Sally also believed that professional development in reading should not follow a "canned curriculum" but rather should include discussions with other teachers about strategies that worked for them in the classroom. Sally also noted that it takes time for teachers to collaborate and that time is a commodity lacking in the teaching profession today. Susan believed teachers need professional development that should include "hands on" activities, which could be used in the classroom. In contrast, Louise offered no suggestions for professional development related to reading interventions. Mary also did not offer any suggestions for professional development, but instead wrote that even though Tier 1 and Tier 2 interventions would be beneficial to identified students, other students might not be challenged. Priscilla suggested professional development related to strategies that involved the new textbook adoption and technology via a website or computer applications because she believed that students are more productive when they use computers. Priscilla also stated that she would like to have more training on the FLEX program in order to provide more help for students at risk in reading. However, Priscilla also expressed concern that there might not be enough licenses for the regular education teachers. Thus, teachers wanted professional development sessions to include time for discussion with other teachers about effective instructional strategies that they use, "hands on"

training that included activities that they could implement immediately in the classroom, training about how to use technology to improve student reading skills, and learning how to use the new FLEX program for non-proficient readers.

Table 6 is a summary of the categories from an analysis of the reflective journal data.

Table 6

Summary of Categories for Reflective Journal Data

Reflective Journal Question	*Categories*
RJQ 1: Prior professional development	Earning TESOL license Learning about differentiated reading instruction Receiving training on high school reading instruction Receiving 2 days of Read 180 training Receiving 1 day of System 44 training Not recalling any training
RJQ 2: Current professional development	Receiving technological training related to instruction Noting no current training Receiving training on small group reading instruction
RQJ 3: Effective professional development	Not following a pre-prepared curriculum Allowing time to share effective strategies Needing "hands on" training Needing training related to technology strategies Needing training about FLEX for non-proficient readers

Documents

Documents were analyzed using a content analysis as Merriam (2009) recommended for qualitative research. A content analysis includes a description of the purpose, content, structure, and use of a document. The documents that were analyzed for

this study included the state standards in reading for students in Grades 9-12, the state RTI framework, the school improvement plan, and professional development activities in reading for teachers at this high school.

State standards. The first document that was collected was the state standards in reading for students in Grades 9-12. The standards document was titled *[State]Common Core Language Arts and Literacy Standards*. These standards were developed by the State Department of Education and were distributed to English language arts teachers across the state in 2010. These standards were organized by grade level according to the following five categories: language acquisition, reading informational text, reading literature, speaking and listening, and writing. The purpose of this standards document was to provide teachers with guidelines to use when developing classroom lessons so that all the standards are addressed at each grade level before students complete the *Partnership for Assessment of Readiness for College and Careers* (PARCC) state assessment related to these standards.

The Common Core Standards for reading included 10 informational reading standards and 10 literature reading standards for students in Grades 9-12. They were broken down by Grades 9-10 and Grades 11-12 in relation to the following categories: key ideas and details; craft and structure; integration of knowledge and ideas; range of reading; and level of text complexity. Standard 7 for informational reading was as follows:

> Grades 9-10: Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.

> Grades 11-12: Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

The difference between these standards related to the progression and depth of knowledge. The Grades 9-10 informational standard emphasized recall whereas the Grades 11-12 informational standard emphasized strategic thinking and extended thinking.

Standard 7 for literature reading was as follows:

> Grades 9-10: Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment.
>
> Grades 11-12: Analyze multiple interpretation of a story, drama, or poem (e.g. recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

The difference in these two standards was that the Grades 9-10 literature reading standard focused on key scenes in two different artistic mediums whereas the Grades 11-12 literature reading standard focused on multiple interpretations of a text.

Although teachers did not reference this document during the interviews, the department chairperson confirmed that teachers had integrated the State Common Core Language Arts and Literacy Standards into all courses for this program at this high school.

State and district RTI frameworks. RTI is an organizational framework by which schools assess student needs, strategically allocate resources, and design and deliver instruction to all students within the school This framework document was

available on the State Department of Education website. The RTI framework that was mandated by the state in 2014 and implemented at this high school was titled *The Three-Tier Model of Student Intervention*. This RTI framework was designed by a RTI advisory committee that consisted of 12 educators from 12 school districts in the state. In this document, the framework is described as a three-tier, problem-solving model that teachers should use to implement increasingly intensive academic and/or behavioral supports, based on data they collect from the progress monitoring of student responses to instruction and/or interventions.

The state required that all schools implement this RTI model by using the guidance manual, which was also available on the State Department of Education's website. This guidance manual, which was titled *Response to Intervention 2014,* included the following topics: (a) a section on each of the three instructional tiers; (b) a glossary of key terms and sample forms for the student assistance team (SAT) to use; and (c) key resources for teachers. In this guidance manual, Tier 1 was described as core instruction that is differentiated for all students. Tier 1 is proactive, preventative, and provides interventions at the earliest point possible when academic or behavior difficulties first arise. It is driven by high quality teaching using differentiated instruction and analysis of student performance data. The teams that support this tier include professional learning communities, data teams, grade level teams, content teams, and other school and district supports aimed at improving core instruction. Tier 2 is described as providing supplemental, strategic, and individualized support for at risk students who do not respond to Tier 1 instruction and targeted interventions. A student assistant team gathers

all data and looks at all possible causes for the problem and then designs an individualized intervention plan that requires frequent progress monitoring so adjustments can be made as needed to meet the individual student's learning needs. Students receiving Tier 2 services continue to receive Tier 1 instruction but with the added benefit of more intensive interventions, reducing the amount of unnecessary special education referrals. Glossary terms in this guidance manual included *formative assessment, frequency, frequency of universal screening, functional behavioral assessment, gifted students, group size, individualized education plan (IEP), IEP team, intensity, intensive interventions, interim assessment, interventions, state content standards, progress monitoring of intervention, short cycle assessments, small group instruction, student assistance team (SAT), summative assessment*, and *universal screening assessment*. Sample forms were included to help teachers implement RTI using diagnostic testing, making an intervention plan, implementing the plan, and monitoring student progress. Key RTI resources in this guidance manual were presented in relation to the following components: (a) high quality classroom instruction, (b) high expectations, (c) assessments and data collection, (d) problem-solving systems approach, (e) research-based interventions, (f) positive behavioral support, (g) fidelity of program implementation, (h) staff development and collaboration, (i) parent and family involvement, and (j) disability determination.

At the school district level, a curriculum and instruction team at the district office published a handbook in July, 2015, titled the *High School Curriculum Handbook 2015-2016,* which stated that the State Department of Education required all school districts to

implement a tiered model of student interventions in reading. This handbook was found at the school district website. The purpose of this handbook was to give guidance to teachers in the school district related to the implementation of curriculum at the course level, including interventions. The handbook described the intervention model as a continuum of school-wide support to organize instructional delivery, optimize resources, use a systems approach to teaching and learning, and provide behavioral supports for students. The handbook also included a statement that the school district followed the state RTI model, which includes three tiers of academic and behavior support. Proficiency scales and tracking sheets are included in this handbook to help teachers identify students who may need additional support and/or intervention. Other topics in this handbook included (a) the school improvement cycle, (b) data driven instruction, (c) professional learning communities, and (d) a standards-based educational structure.

School improvement plan. Another document that I collected was titled the *Educational Student Success Plan* that the principal at Merrion High School submitted to the State Department of Education on November 6, 2012. As stated earlier, the State Department of Education mandated a revised 3 year school improvement plan because the school did not meet AYP. The purpose of part of this plan was to establish goals, strategies, and action steps that the principal, the English language arts department chairperson, and the special education coordinator developed in relation to tiered reading interventions at Merrion High School. Therefore, the document was organized in relation to specific timelines. Although many goals were included in this document, only the reading goals related to Tier 1, Tier 2, and Tier 3 interventions are described for this

study. The principal reviewed and approved this plan, and department chairpersons and individual teachers were responsible for assisting the principal in implementing this plan beginning in 2012.

In relation to Tier 1 interventions, the goal was to strengthen the instructional reading program so that within one year, the percentage of all students who are proficient or on track to proficiency within 3 years equals the reading goal of the Standards Based Guiding Committee (SBGC) of 52.3%. The strategy was that the reading program would be fully implemented to correlate with the Common Core State Standards, Grades K-3, and the English Language Arts and Literacy Standards, Grades 4-12. The action step for this goal was to implement a literacy design collaborative through the Southern Education Regional Board High Schools That Work (SREB-HSTW). The action step was to create a team of teachers who would be trained in how to align English language arts, science, history, and career and technical education modules to the Common Core English Language Arts and Literacy Standards. The tasks included providing initial training, developing aligned modules, and using standardized comprehension assessments to measure module effectiveness.

In relation to Tier 2 interventions, the goal was also to strengthen the instructional reading program by implementing several strategies. The first strategy was to provide Tier 2 supports for students in reading in alignment with the state RTI framework. The first action step was to implement the Read 180 program in all English language arts classrooms for individual students identified as nearing proficiency. This program would be monitored for effective implementation and any needs for additional professional

development or support would be assessed. The second action step was that after-school reading and language arts tutoring would be offered to provide support for students below the proficiency level on standards-based assessments. The third action step was the implementation of the Drop Everything and Read (DEAR) program, which encouraged all students to enrich their reading experiences in a school-wide reading environment. The last action step was to implement the Achieve 3000 reading program in all English language arts courses, which provided individualized nonfiction reading instruction for all students.

In relation to Tier 3 interventions, the goal was also to strengthen the instructional reading program. The specific strategy was to provide intensive targeted interventions to meet specific student learning needs in alignment with the state RTI framework. The specific action step was to implement the System 44 reading program for Tier 3 intervention students with IEPs or qualifying lexile scores. The tasks involved assigning courses to appropriate students, delivering program curriculum, and checking program effectiveness using short common assessments, the Scholastic Reading Inventory, core grades, and other program data.

Other strategies were also included in this plan to strengthen the instructional reading program. One strategy was to provide professional development in reading for teachers and administrators about the need to align course instruction with the Common Core State Standards. The action step included training for an interdisciplinary team of teachers about how to design instructional modules for diverse courses that emphasized

the new literacy standards. Professionals from the High School That Works organization provided the training.

Another strategy was to dedicate collaborative time for teachers to analyze data in order to inform their planning to deliver targeted instruction and support to students as needed. The action steps involved providing this time for English language arts teachers on the second Wednesday of the month so that they could review current data, discuss strategy implementation, and analyze program needs and effectiveness.

An additional strategy was to monitor the instructional reading program at this high school to ensure that classroom teachers delivered the course curriculum in an explicit and systematic manner that adhered to the fidelity of the program. The first action step in relation to strengthening the instructional reading program was that the special education department should address Tier 3 interventions using the Scholastic System 44 program, which was designed to help students meet their IEP goals and achieve success in Read 180 and/or the core English Language Arts program. The second action step in strengthening the instructional reading program was to align the outcomes for each program course with the State Common Core Language Arts and Literacy Standards. The action step for this goal (as stated earlier) was that, through the Southern Education Regional Board High Schools That Work (SREB-HSTW), a team of teachers would be formed as part of a literacy design collaborative, and they would be trained in developing instructional modules for a variety of courses aligned to the new standards. The third action step in monitoring the instructional reading program was to implement

the Read 180 program, after-school reading and language arts tutoring, the Drop Everything and Read (DEAR) program, and Achieve 3000.

A final strategy was to develop a dialogue within the English language arts department about how students perform in order to establish action steps needed to address gaps in performance. The first action step was to provide time for English language arts and reading teachers to meet on the second Wednesday of each month to review current student achievement data, to discuss strategy implementation, and to analyze program needs and effectiveness. Another action step was to monitor student progress by using the *Scholastic Reading Inventory*, classroom observations, classroom grades and examinations, and the *Discovery Education Short Cycle Assessment,* which was administered 3 times a year to monitor skill growth in reading.

During the time that this study was conducted, instead of requiring school district educators to resubmit another *Educational Plan for Student Success,* which was now 3 years old, the State Department of Education required school districts to submit a *90 Day Action Plan,* which includes actions that educators plan to take to address student performance challenges for the 2015-2016 school year. Therefore, school district administrators submitted the following action plan to the State Department of Education in the fall of 2015: (a) develop highly effective professional learning communities; (b) use research proven methods to reteach to mastery; and (c) establish purposeful homework strategies. Teachers were expected to collaborate in professional learning communities (i.e. department level course teams) to implement learning goals and measures, to use research-based strategies to teach to mastery, to implement purposeful

homework strategies, to develop common assessments, and to share data to address students performing below proficiency. This 90 day action plan also included a goal to increase the graduation rate to above 80% and improve the course failure rate for Grade 9 students from 45% to 70%.

Professional development activities. In *The Educational Student Success Plan*, some professional development activities for the 2012-2013 school year were described, including training that the HSTW consortium provided to an interdisciplinary team of English language arts, social studies, science, and career and technical education teachers about the goals, objectives, and actions for the literacy design collaborative. This training session was held on August 31, 2012, and course level teacher teams developed modules that aligned instructional strategies with the new state standards. These modules were submitted for review, revised, piloted in various courses, and finalized.

I also collected the August 24, 2014 school board minutes, which reflected the schedule for professional development for the 2014-2015 school year. At this meeting, the Assistant Superintendent for Human Resources outlined the proposed training schedules related to the Common Core State Standards, RTI, and differentiated instruction. The first training session was held on September 19, 2014, which was a presentation to all teachers by John Draper, a National School Public Relations Association (NSPRA) consultant on student engagement. A cooperative training effort with other neighboring districts was scheduled for September 26, 2014, which focused on "Why Schools Must Change Together," presented by an educational consultant on transforming education. District training and support for principals, school professional

learning communities, and course level teams was indicated, but no specific dates were presented. Training related to the Reads to Lead Grant and the Kellogg Grant were also described in these minutes, including specific Orton/Gillingham practices to help teachers who work with students not proficient in reading. Another professional development session on RTI was scheduled for January 8, 2015, when a new intervention was implemented, which allowed students to turn in late work, which gave students more opportunity to complete assignments and gave teachers a better understanding of student reasons for turning in late work. Thus, professional development related to reading intervention instruction was provided in the district.

Table 7 provides a summary of the categories constructed from a content analysis for all of the documents.

Table 7

Summary of Categories from Content Analysis of Documents

State standards	Implementing informational reading standards Implementing literature reading standards Noting differences in depth/complexity of knowledge Preparing students for state assessments
State RTI framework/manual	Requiring all schools to implement multi-tier model Defining Tier 1 as differentiated instruction for all Providing Tier 1 interventions at the earliest point Defining Tier 2 as individualized instruction for students not proficient in reading Defining Tier 2 as frequent progress monitoring Analyzing student performance data Providing positive behavior support Using research-based interventions Improving student achievement as major goal Assessing individual student needs Using data to guide instructional decisions Using data to guide behavioral support decisions
District RTI framework/handbook	Implementing a standards-based framework

	Using a continuum of school-wide support Organizing instructional delivery Optimizing resources Using a systems approach Tracking student progress with proficiency scales Identifying students who need interventions Discussing achievement data during PLC meeting
School program improvement plan Tier 1	Implementing a literacy design collaborative Aligning course outcomes to state reading standards Training course teams to align modules to standards Implementing Drop Everything and Read (DEAR)
Tier 2	Using Read 180 to differentiate instruction Providing tutoring after school Using Achieve 3000 to monitor student progress
Tier 3	Providing intensive targeted interventions Aligning interventions with IEP goals Using System 44 to monitor student progress
Improvement strategies	Training teachers in the literacy design collaborative Providing collaborative time to analyze data Evaluating student achievement in reading
90 Day Plan	Developing professional learning communities Re-teaching to mastery Implementing purposeful homework strategies Designing common assessments at course level Monitoring progress of students nearing proficiency
Professional development activities	Providing training on literacy design collaborative Providing training on aligning state standards Collaborating with other school districts Implementing Reads to Lead Grant Implementing Kellogg Grant Revising policy on accepting late work

Level 2 Analysis

Level 2 analysis involved the determination of themes and discrepant data that emerged from the data analysis. These emergent themes and discrepant data were determined from a review of the categories that were constructed for all data sources.

Emerging Themes

Theme 1: English language arts teachers used several diagnostic assessments to determine student placement in reading interventions in their classrooms, including the *Gates/MacGinitie Diagnostic Reading Assessment* and Achieve 3000 reading levels as well as other informal assessments, such as observations, writing samples about reading selections, and reading grades.

Theme 2: English language arts teachers used a variety of scaffolding strategies to differentiate instruction for all students during Tier 1 interventions and to individualize instruction and monitor progress for students not proficient in reading during Tier 2 reading interventions in their classrooms.

Theme 3: English language arts teachers used a variety of strategies to monitor student progress in Tier 1 and Tier 2 reading interventions in their classrooms.

Theme 4: English language arts teachers believed that they needed professional development to develop a better understanding of the differences between Tier 1, 2, and 3, to have more time for collaboration with other teachers about how to use best practices in reading for high school students, and to learn how to use the FLEX reading program so they could meet individual student needs in reading.

Theme 5: Common Core English Language Arts and Literacy Standards were organized into two categories: informational reading and literature reading standards, which varied in the depth and complexity of knowledge required to master reading skills and concepts related to the state assessments.

Theme 6: The state RTI framework and manual provided guidance for K-12 educators in this southwestern state in implementing a three-tiered RTI model mandated for all public school districts.

Theme 7: The district RTI framework and curriculum handbook described a systems approach to implementing reading interventions, using a continuum of school-wide support to help teachers identify students who need interventions, organize instructional delivery, optimize resources, and track students using proficiency scales.

Theme 8: The 2012 high school program improvement plan included specific goals, strategies, and action steps to strengthen the instructional reading program, including using the Achieve 3000, Read 180, and Systems 44 computer-based programs to assess and monitor progress for students not proficient in reading; implementing the Drop Everything and Read (DEAR) school-wide reading initiative; offering after-school tutoring in reading; and implementing a literacy design collaborative to help classroom teachers align instructional modules to the new state standards. The updated 90 day school improvement plan for 2015-2016 focused on raising graduation rates and success rates for Grade 9 students.

Theme 9: Documents related to professional development activities for 2014-15 included professional training with other local schools about "Why High Schools Should Work Together", a presentation on student engagement from an educational consultant, and training on RTI, which was funded through reading grants.

Discrepant Data

Discrepant data is data that challenges the theoretical proposition of a case study (Yin, 2014). The theoretical proposition that guided the data collection and data analysis for this study was that the English language arts teachers at this high school used a variety of strategies in implementing reading interventions that included following specific state and district guidelines for placement, instruction, and assessment.

No discrepant data was found that challenged this theoretical proposition because data analysis indicated teachers used a variety of strategies in implementing tiered reading interventions that included following state and district guidelines.

Evidence of Trustworthiness

Careful attention to a study's conceptualization and the way in which data are collected, analyzed, and interpreted and the way in which the findings are presented is important to the trustworthiness of qualitative research (Merriam, 2009). The trustworthiness of qualitative research is often discussed in relation to the constructs of credibility, transferability, dependability, and confirmability or objectivity. This section includes a discussion of the specific strategies that were used in relation to each construct in order to improve the trustworthiness of this qualitative research.

Credibility

Credibility for qualitative research is defined as internal validity or how the research findings match reality (Merriam, 2009). The strategies that I used to improve the credibility of this study included triangulation, member checks, and adequate engagement in data collection. I used the strategy of triangulation by comparing and contrasting data

from multiple sources of evidence, including interviews, observations, and documents. I used the strategy of member checks by asking participants to review the tentative findings of this study for their plausibility. I also used the strategy of adequate engagement in data collection by spending several months collecting data from multiple sources.

Transferability

Transferability for qualitative research is defined as the extent to which the findings of one study can be applied to other situations (Merriam, 2009). The strategies used to improve the transferability of this study included using rich, thick description which involved detailed presentations of the setting, participants, and findings of the study. I also used the strategy of typicality of the sample because the Tier 1 and Tier 2 reading interventions implemented at this research site were typical of the Tier 1 and Tier 2 reading interventions that teachers implemented throughout the state to help high school students who were identified as not proficient in reading.

Dependability

Dependability for qualitative research is defined as the extent to which the research findings can be replicated (Merriam, 2009). The strategies that I used to improve the dependability of this study included triangulation, peer examination, and an audit trail. I used the strategy of triangulation by comparing and contrasting multiple sources of data to ensure dependability of results. I used the strategy of peer examination by asking a colleague to scan some of my raw data to assess whether or not the findings were plausible based on the data. The colleague responded that the raw data indicated the

findings were plausible. I also used the strategy of an audit trail by maintaining a researcher's journal in which I recorded all of the decisions that I made about data collection and analysis during the research process.

Confirmability

Confirmability is defined as the objectivity of qualitative research (Merriam, 2009). The strategy that I used to improve the confirmability of this study was reflexivity. Merriam defined reflexivity as the researchers' responsibility is to articulate and clarify their assumptions, experiences, worldview, and theoretical orientation to the study. I used this strategy by using the researcher's journal to reflect on any decisions that I made during the data collection and analysis processes. I also clarified assumptions in Chapter 1, and I discussed the role of the researcher and the potential for bias in Chapter 3.

Results

The results or key findings are analyzed in relation to the central and related research questions for this study. The related research questions are presented first because it is a synthesis of the related research questions

The first related research question asked, *"How do high school English language arts teachers use diagnostic assessments to determine student placement in Tier 1 or Tier 2 reading interventions?"*

The key finding for this related research question was that English language arts teachers used several formal and informal assessments to determine student placement in Tier 1 and Tier 2 reading interventions in their classrooms.

Analysis of the interview data supported this finding. Teachers reported that they used results from the *Gates MacGinitie Diagnostic Reading Assessment* and Achieve 3000 reports to determine placement in Tier 2 reading interventions in their classrooms. Teachers also reported that they used informal assessments such as writing samples related to reading selections and reading grades to determine these placements. For Tier 2 placement, teachers reported that in addition to these assessments, they determined placement based on reading levels from state assessments.

Observation data also indicated that teachers used the results of the *Gates MacGinitie Diagnostic Reading Assessment* to determine placement in Tier 2 reading interventions. In addition, teachers used Read 180 and Achieve 3000 reports to determine Tier 2 placement, as well as informal assessments such as writing samples related to reading selections, responses to reading comprehension questions, and understanding of key vocabulary in selected reading passages.

The state and district RTI framework documents also required diagnostic assessments as a baseline measure to determine placement in Tier 1 reading interventions. The high school improvement plan indicated that English language arts teachers were also expected to use the Read 180 program and Achieve 3000 to determine Tier 2 placement and monitor progress for students not proficient in reading in their classrooms.

The second related research question asked, *"How do high school English language arts teachers scaffold instruction during Tier 1 or Tier 2 reading interventions?"*

The key finding for this related research question was that English language arts teachers used a variety of strategies to scaffold instruction during reading interventions in their classrooms, including differentiated instruction for all students during Tier 1 interventions and individualized instruction for students not proficient in reading during Tier 2 interventions.

Analysis of the interview data supported this finding. During Tier 1 reading interventions, English language arts teachers reported using the following strategies to differentiate instruction for all students: (a) using a word wall to teach vocabulary words, (b) discussing historical background prior to novel reading, (c) conducting daily oral language activities, (d) analyzing the structure and function of vocabulary words, (e) asking critical thinking questions in Socratic seminars, (f) assigning Achieve 3000 stories for all students at their individual reading levels, and (g) presenting information verbally and visually. For example, Louise reported using critical thinking questions in Socratic seminars for the Grade 12 English AP course because students exchanged ideas without teacher involvement while analyzing difficult text to improve their reading comprehension skills. For the Grade 10 English class, Priscilla reported using the audio version of *The Gift of the Magi* while having students follow along in the book. Priscilla stated, "I present the main concepts of the short story and compare what was just read and listened to for analytical and comprehensive purposes." For the Grade 9 English class for ESL learners, Sally described using a word wall to help students clarify vocabulary words because these students were beginning to learn the English language and

sometimes still talked in their native language. Sally believed they need extra support in vocabulary to improve their reading comprehension skills.

During Tier 2 reading interventions, English language arts teachers reported using the following strategies to individualize instruction for students not proficient in reading: (a) working with students in small group settings, (b) meeting individually with non-proficient readers, (c) asking students to color code main ideas in complex text, (c) providing extra time to analyze text, (d) using a six-step vocabulary process, (e) presenting instruction in Spanish and English, (f) using peer-to-peer pairing for reading comprehension activities, (g) reducing the number of reading comprehension questions, (h) providing additional examples, and (i) diagramming sentences to help students understand the function of words. For example, Mary reported meeting individually with students in the Grade 11 English course to discuss their progress in reading. By checking their individual assignments, Mary was able to focus on vocabulary words that students not proficient in reading did not understand so they could complete their work. This careful review of individual student work also enabled Mary to implement more specific interventions for these students. For the Grade 9 English course for ESL students, Sally reported using peer-to-peer pairing for reading activities so that students who were proficient in reading could help students who were not proficient in reading complete their reading and writing assignments. Sally noted, "Letting the students work together gave them the chance to share ideas with each other and then help each other write the paragraph." For the Grade 10 English course, Susan reported reducing the number of

comprehension questions to target the essential concepts that students nearing proficiency needed to master.

Observation data indicated that, during Tier 1 interventions, English language arts teachers presented lesson objectives that matched the state standards. They also used a variety of strategies to differentiate instruction for all students during Tier 1 reading interventions, including the following: (a) analyzing the word of the day and using it in a sentence, (b) writing a summary paragraph about a short story, (c) reviewing story details using the TAGTT strategy, (d) answering questions individually about assessments, (e) reviewing fiction elements related to a novel, (f) requiring students to complete tests on computers, (f) asking students to leave the classroom to complete their work, (g) modeling correct answers to students understood expectations, and (h) reviewing characters in a story. All English language arts teachers used essential questioning as a Tier 1 intervention to help students improve their reading comprehension skills, particularly in relation to determining the main ideas of a short story or novel and in relation to analyzing individual characters within these works of fiction.

Observation data also indicated that, during Tier 2 reading interventions, English language arts teachers used the following strategies to individualize instruction for students not proficient in reading: (a) meeting with individual learners as needed, (b) working with students in small group settings, (c) allowing extra time to complete assignments, (d) using sentence diagramming to analyze function of words in sentences, (e) using pair/share for peer feedback, (f) allowing students to speak in their native language, (g) defining vocabulary words that students do not understand, (h) modeling

examples of correct answers, and (i) using essential questioning to help students improve their comprehension skills. For example, the ESL instructor, Sally, gave these students more time to complete assignments.

Documents also supported teacher use of differentiated instruction during Tier 1 classroom reading interventions and individualized instruction during Tier 2 classroom reading interventions. For example, the state RTI guidance manual provided guidance for teachers about differentiating instruction for Tier 1 reading interventions by recommending that teachers use a website called *Guided Language Acquisition Design*, which provided 35 specific strategies for teachers to use, such as building the vocabulary and linguistic structures that students must use to participate in context-rich discourse. This document also provided guidance for teachers about how to individualize instruction for Tier 2 interventions by using a website called *The Multi-level Prevention System*, which includes case studies about reading interventions for individual students. The school improvement plan also described specific strategies that teachers could use to scaffold Tier 1 reading intervention instruction, such as the DEAR school-wide reading activity and after-school reading tutoring. In relation to Tier 2 reading interventions, district documents required teachers to use the Read 180 computer-based program to provide instruction and monitor progress for individual students nearing proficiency in reading.

The third related research question asked, *"How do high school English language arts teachers monitor student progress in Tier 1 and Tier 2 reading interventions?"*

The key finding related to this research question was that English language arts teachers used a variety of strategies to monitor student progress in Tier 1 and Tier 2 reading interventions in their classrooms.

Analysis of the interview data supported this finding. During Tier 1 reading interventions, English language arts teachers reported using the following informal assessment strategies to monitor reading progress for all students, including (a) using fiction elements to analyze stories, (b) administering spelling tests, (c) using Marzano's six-step vocabulary development process to monitor vocabulary growth, (d) reviewing Achieve 3000 progress reports, (e) asking recall questions about reading selections to assess comprehension, and (f) asking critical thinking questions about reading selections to assess comprehension. For example, Sally reported using Marzano's six-step vocabulary development process on a weekly basis to help ESL students increase their vocabulary All of the English language arts teachers reported using critical thinking questions to monitor progress in relation to their reading comprehension skills concerning selected short stories and novels. All of the English language arts teachers also used Achieve 3000 reports to monitor student progress every week so students could see their improvement and strive to increase their reading levels.

Interview data also indicated that, during Tier 2 reading interventions, English language arts teachers reported using the following strategies to monitor progress for students not proficient in reading: (a) assessing oral reading fluency for non-proficient readers, (b) modifying tests for non-proficient readers, (c) reviewing Achieve 3000 progress reports for these students, (d) using the School Net assessment bank, and (e)

monitoring students who did not complete their assignments. For example, English language arts teachers reported using the SchoolNet assessment bank to analyze individual student reading performance data that was generated through item analysis and standard mastery reports. For the Grade 12 English AP course, Louise also reported assessing oral reading fluency for non-proficient readers, using a book titled *Townsend Oral Reading Fluency*. For the Grade 10 English course, Susan reported reducing the number of test questions for non-proficient readers so they did not become confused by the vocabulary related to these questions. Priscilla and Louise reported allowing non-proficient readers to complete tests orally to demonstrate their mastery of skills and concepts.

Observation data indicated that, during Tier 1 reading interventions, English language arts teachers monitored progress for all students by using a variety of strategies such as (a) walking around the classroom to monitor student progress on assignments, (b) showing concern about students who were missing assignments, (c) reminding students about late work, (d) checking that students accessed online homework, (e) answering individual questions during testing, (f) calling on students to answer comprehension questions related to specific reading passages, (g) checking writing journals weekly, (h) requiring students to answer critical thinking questions related to reading selections, (i) answering specific questions about a reading comprehension test, and (j) allowing students to submit homework by email. For example, the Grade 9 and Grade 11 English language arts teachers, Sally and Mary, asked students to write about the assigned novel or short story in their journals at the beginning of every class period so that the teacher

could check on the progress of their comprehension skills. Because all students were provided with computers, they could submit homework by e-mail, which teachers believed helped students to improve their reading skills because they were more likely to complete this independent practice.

Observation data indicated that, during Tier 2 reading interventions, English language arts teachers monitored progress for students not proficient in reading by using a variety of strategies such as (a) talking individually to students about missing assignments, (b) checking student progress on individual assignments, (c) monitoring individual student progress on computer work, (d) calling on students who did not typically participate in class discussions, and (e) conducting individual conferences to discuss reading progress. For example, in the Grade 10 English course, Priscilla required students to complete all of their homework assignments on Edmoto and submit them for review in order to monitor their practice of a particular reading skill. All of the English language arts teachers talked to individual students about their missing assignments and the reasons why these assignments were missing. They provided extra time if needed so that students not proficient in reading completed their assignments. In the Grade 9 English course for ESL learners, Sally walked around the classroom to observe students writing paragraphs about the short story that they had read so that she could determine if students understood the story.

Documents also supported this finding. The state RTI framework required that teachers conduct progress monitoring within the tiers in order to move students from one tier to another. The district RTI framework, as referenced in the *High School Curriculum*

Handbook 2015-2016, also required progress monitoring. Both the Achieve 3000 and Read 180 computerized reading programs provided weekly and monthly progress reports so that teachers could make adjustments to their interventions for students who were not proficient in reading. The school improvement plan also recommended the use of short cycle assessments as pre- and post-test data.

The fourth related research question asked, *"What professional development do high school English language arts teachers need to effectively implement Tier 1 and Tier 2 reading interventions?"*

The key finding related to this research question was that English language arts teachers believed that they needed professional development to effectively implement Tier 1 and Tier 2 reading interventions in their classrooms.

Analysis of the reflective journal data supported this finding. All of the English language arts teachers believed they needed professional development to better understand the RTI problem-solving model that the State Department of Education required them to implement. These teachers also believed they had a general understanding of RTI but needed a clearer understanding of the differences among the three tiers. All of the teachers reported that they wanted more time for teacher collaboration in order to determine best practices related to teaching reading at the high school level. English language arts teachers also believed that they needed training on how to use the new FLEX program so that when they determined placement for students not proficient in reading, they could provide support using this program for individual students. English language arts teachers also requested additional professional

development on best practices that were researched-based and could be used in the classroom.

Documents also supported this need for professional development related to reading interventions. The school board meeting minutes published in August, 2012 indicated that three professional development sessions were scheduled for 2014-2015. The first session was titled, "Why High Schools Must Change Together" and was held at the beginning of the school year. The second session focused on the implementation of the Read to Lead grant that involved literacy and early childhood education and was held in the fall of 2012. In addition, a third session was held in January, 2015 that focused on RTI, During this session, English language arts teachers at Merrion High School met with school administrators and discussed a modification of the school policy about accepting late work from students in order to improve their homework completion.

The central related research question asked, *"How do high school English language arts teachers implement instruction and assessments during Tier 1 and Tier 2 reading interventions in their classrooms?"*

The key finding was that teachers used formal and informal assessments to place students in Tier 1 and Tier 2 reading interventions in the classroom, and they used a variety of scaffolding strategies to differentiate instruction for all students during Tier 1 interventions and to individualize instruction for students not proficient in reading during Tier 2 interventions. Teachers also used computerized programs to frequently monitor and assess student progress.

Analysis of the interview data supported this finding. English language arts teachers reported using formal assessments, such as the *Gates/MacGinite Diagnostic Reading Assessment* and state assessment reading results, as well as informal assessments, to identify students as *nearing proficiency* and to determine the placement of these students in Tier 1 and Tier 2 reading interventions in the classroom. Although English language arts teachers reported that they did not have a clear understanding of the differences among the tiers of the RTI model, they described using differentiated instructional strategies similar to the strategies indicated in the state RTI framework to provide reading interventions to identified students. These differentiated instructional strategies included designing lessons based on students' learning styles; grouping students by shared interest, topic, or ability; assessing students' learning using formative assessments; and continually adjusting lesson content to meet students' needs (Tomlinson, 2008). However, during the interviews, English language arts teachers did not report designing lessons based on students' learning styles, although one teacher described presenting information visually as well as verbally to accommodate some differences in learning styles. Instead, English language arts teachers described grouping students by ability level so that students who were proficient in reading could help students who were not proficient in reading to help them improve their reading comprehension skills. In addition, English language arts teachers reported using the Achieve 3000 and Read 180 computerized programs to monitor the weekly progress of students nearing proficiency in reading. They also reported monitoring the progress of these students by using informal assessments such as observations to check for

understanding, asking questions to determine reading comprehension related to specific reading selections, and reviewing missing assignments. In terms of continually adjusting lessons to meet the needs of students who were not proficient in reading, English language arts teachers reported that they provided extra time for students who had not completed their homework or reduce the number of comprehension questions in an assignment. They also reported using essential questioning to monitor comprehension skills related to their reading assignments.

Observation data also supported this finding. English language arts teachers were observed differentiating instruction for all students during Tier 1 reading interventions and individualizing instruction for students proficient in reading during Tier 2 reading interventions. In relation to differentiating instruction for all students in Tier 1 interventions, teachers asked students to analyze and use the word of the day in a sentence, write a summary paragraph about a short story, and review story details using the TAGTT strategy. In addition, teachers answered questions individually as needed, reviewed fiction elements related to novels, and modeled correct answers for assignments. In relation to providing individualized instruction in Tier 2 interventions for students not proficient in reading, teachers often provided additional time for these students to complete instructional tasks, and they adjusted tests according to individual student needs by reducing the number of questions. In addition, teachers offered these students different options for showing mastery of concepts, requiring them to complete tasks on computers, modeling correct answers so assignment expectations were understood, and reviewing new vocabulary words daily. Some teachers also allowed

students who were not proficient in reading to participate in oral assessments in order to assess their reading comprehension skills.

Documents also supported this finding by providing explicit expectations for teachers in providing instructional and assessment strategies to meet the individual needs of students identified as nearing proficiency in reading. Both the state and the district RTI frameworks defined the purpose of Tier 1 interventions as core instruction that is differentiated for all students. Tier 2 interventions are defined as providing supplemental, strategic, and individualized support for at risk students who do not respond to Tier 1 instruction. These documents also included tracking forms for monitoring progress as well as instructional strategies for teachers to use. The school improvement plan described specific Tier 1, Tier 2, and Tier 3 supports that were needed to improve reading achievement, including computerized programs such as Read 180, Achieve 3000, and System 44, the DEAR school-wide reading program, tutoring after-school, and implementation of the High Schools That Work Literacy Collaborative program.

Table 8 is a summary of the results or key findings of this study.

Table 8

Summary of Results

Research Questions	*Categories*
RRQ1: Intervention placement	Using Gates MacGinitie test results Using state assessment results Using grade point average in reading Using writing samples for comprehension Using Achieve 3000 and Read 180 reports
RRQ2: Scaffolding instruction	Differentiating instruction for all students Asking essential questions to understand complex text --Using modeling to help students give accurate answers

	--Asking students to color code main ideas in text --Using six-step vocabulary process --Asking students to diagram sentences Individualizing instruction for not proficient readers --Using small group instruction --Using pair/share strategy for peer feedback --Allowing extra time for assignments --Reducing number of comprehension questions --Presenting instruction in both Spanish and English
RRQ3: Monitoring progress	Using Read 180 and Achieve 3000 reports Using informal classroom assessments for writing Checking for understanding Calling on students who typically do not answer Walking around classroom to observe task completion Meeting individually with students
RRQ4: Professional development	Needing a clearer understanding of RTI Needing a clearer understanding of how to teach reading to high school students Asking for more teacher collaboration time Wanting all teachers to be trained in reading instruction Seeking research-based instructional practices
Central RQ: Implementing instruction and assessment	Using formal and informal assessments for placement Differentiating instruction for all students in Tier 1 Individualizing instruction for students not proficient in reading in Tier 2 Utilizing computer-based programs to monitor and assess progress

Chapter 5 includes an interpretation of these findings in relation to the conceptual framework and the literature review. In addition, this chapter includes the interpretation of findings, the limitations of study, recommendations for research, implications for social change, and a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to explore how high school English language arts teachers implemented instruction and assessment during Tier 1 and Tier 2 interventions in reading in their classrooms at a rural high school located in the southwestern region of the United States. A case study design was selected to conduct this study because collecting data from multiple sources of evidence provided a rich picture of how English language arts teachers at this high school implemented Tier 1 and Tier 2 reading interventions in their classrooms within the parameters of a standard protocol RTI model. This study was needed because little research has been conducted about the implementation of Tier 1 and Tier 2 reading interventions at the high school level.

In relation to the results of this study, the first key finding was that English language arts teachers at this research site determined placement in Tier 1 and Tier 2 reading interventions in their classrooms through the use of formal reading assessments, such as the *Gates/MacGinitie Diagnostic Reading Assessment,* Achieve 3000, and Read 180 placement results. Teachers also used informal assessments such as grades in reading, classroom observations of student progress in reading, vocabulary tests, and writing samples related to reading selections in order to support these placements. A second key finding was that English language arts teachers used a variety of scaffolding strategies to differentiate instruction for all students in the Tier 1 interventions, such as modeling to help students give accurate answers to reading comprehension questions, asking essential questions to help students understand complex text, and asking students to color-code main ideas in a text. In addition, teachers used a variety to scaffolding

strategies to individualize instruction in Tier 2 interventions for students identified as not proficient in reading, such as small group instruction, providing them with more time and reducing the number of questions in an assignment, and allowing them to present their answers orally rather than in writing. A third key finding was that English language arts teachers monitored progress for all students by walking around the room to monitor student progress on assignments, asking students about missing assignments, reminding students about late work, checking student access to online homework, answering individual questions during testing, calling on individual students to answer reading comprehension questions, and checking writing journals related to reading assignments. In addition, these teachers monitored progress for students identified as not proficient in reading by using the Read 180 and Achieve 3000 computerized reports that frequently measured reading progress for individual students and using informal classroom assessments such as checking for understanding, walking around the room observing task completion, and calling on students who typically did not answer comprehension questions. A fourth key finding was that English language arts teachers believed they needed more professional development that included a clearer understanding of how to teach reading to high school students, more teacher collaboration time, and training for all teachers in reading instruction. In relation to the central research question, the key finding was that teachers used formal and informal assessments for placement of students in Tier 1 and Tier 2 reading interventions, and they used a variety of scaffolding strategies to differentiate instruction for all students and to individualize instruction for

students identified as not proficient in reading. In addition, teachers used computer-based programs to monitor and assess progress for all students.

Interpretation of Findings

The findings for this study are interpreted in relation to the literature review presented in Chapter 2 and the conceptual framework. I first interpreted the findings for the related research questions and then interpreted the findings for the central research question, which is a synthesis of the related research questions.

Intervention Placement

The key finding was that English language arts teachers used several formal and informal assessments to determine student placement in Tier 1 and Tier 2 reading interventions in their classrooms. Formal assessments included the *Gates/MacGinitie Reading Assessment*, Achieve 3000 and Read 180 reports, and state assessment results, and informal assessments included writing samples related to reading selections and grades related to reading assignments.

Current research supports this finding. Connor et al. (2014) synthesized the findings of the Institute of Education Sciences (IES) in relation to improving reading outcomes for students with or at risk for reading disabilities and found that screening all students using a universal screening tool such as the *Gates/MacGinitie Reading Assessment* is a valid and efficient way to identify students who are at risk for poor reading outcomes. Ehren et al. (2010) examined how to use a content literacy continuum as a framework for implementing RTI in secondary schools. Ehren et al. described this continuum as a school-wide approach to improve the literacy skills of middle and high

school students. In this continuum, content is organized and presented in relation to specific concepts and skills, and students are placed on this continuum using a universal screening tool that addresses all the important aspects of literacy including writing. Ehren et al. found that using scientifically based practices in intervention placement, curriculum, and instruction provides an experiential base for using a school-wide literacy initiative within an RTI frame of reference at the secondary school level. The findings of this study are supportive because English language arts teachers at this high school also focused on placement of students in relation to core literacy concepts and skills with opportunities for intervention when needed.

In other supporting research, Crawford (2014) investigated the role of assessment in the RTI model, including the use of diagnostic assessments for accurate intervention placement. Crawford noted that the components for assessing student progress in the RTI model include (a) an agreed upon definition of student success at each tier of support, (b) use of valid and reliable measures of student performance, and (c) graphing of student progress data as opposed to point-in-time performance data. Crawford also noted that assessment in the RTI model should include (a) screening all students in the school at the beginning of fall, winter, and spring quarters, (b) identifying low achievers and monitoring them monthly and (c) monitoring students needing intensive interventions at least weekly. In relation to Tier 1 interventions, Crawford recommended that educators use quarterly assessments that are content-based for intervention placement and monitoring student progress. For Tier 2 interventions, Crawford recommended that assessments target underlying deficits in basic skills, but teachers may also want to

design and use curriculum-based measurements in specific content areas such as reading for both placement and progress monitoring. For Tier 3 interventions, Crawford recommended that assessments should be aligned with students' instructional level, not their grade level. Crawford concluded that the assessment system for RTI should provide data for informed decision making on the basis of normative data or established benchmarks, use reliable measures, and provide visual illustrations of a student's progress over time. These findings are supportive of the findings of this study because English language arts teachers at this rural high school determined placement in Tier 1 and Tier 2 reading interventions by using formal assessments such as ACCESS scores for ESL students and Achieve 3000, *the Gates MacGinitie Reading Assessment* test, and state reading assessment scores to determine reading levels for all students and informal assessments such as grades in reading and writing samples related to reading selections.

Scaffolding Intervention Instruction

The key finding was that teachers used a variety of scaffolding strategies to differentiate instruction for all students during Tier 1 interventions. Some of these strategies included asking students to analyze and use the word of the day in a sentence, write a summary paragraph about a short story, review story details using the TAGTT strategy, review fiction elements related to a novel, and modeling and explaining answers so students understood assignment expectations. Teachers also used a variety of strategies to individualize instruction for students identified as not proficient in reading during Tier 2 interventions. Some of these strategies included small group instruction, providing

extra time to complete assignments, and reducing the number of questions on a comprehension test.

Current research supports this finding about scaffolding instruction. Solis et al. (2012) conducted a synthesis of 30 years of research about reading interventions for middle school students identified with learning disabilities and found that teachers use scaffolding strategies such as asking students to identify the main idea in a paragraph and to link these ideas across paragraphs to create summaries that have strong context validity and to use self-questioning skills to increase comprehension of text. In this study, English language arts teachers also used these strategies to help students improve their reading comprehension skills. In related research, Edmonds et al. (2009) also conducted a synthesis of research about reading interventions, but with an emphasis on older students, and found that these students benefit from explicit instruction related to strategies that they can use to improve their reading comprehension skills. These strategies include thinking aloud, self-questioning and reflecting during and after reading, and monitoring their own understanding of text meaning (Edmonds et al., 2009). In relation to this study, English language arts teachers also asked students to identify main ideas in a reading selection and to use self-questioning skills. In addition, they engaged students in monitoring their understanding of text meaning.

In other supporting research, Cantrell et al. (2013) investigated middle and high school reading interventions. Nine Grade 6 teachers and 11 Grade 9 teachers implemented a learning strategies curriculum, which included (a) a word identification strategy designed to help students learn how to decode multisyllabic words to aid in

comprehension; (b) a visual imagery strategy designed to help students construct mental pictures while reading; (c) a self-questioning strategy to help students learn to ask questions about a text and predict answers; (d) a paraphrasing strategy to help students in identifying the main idea and supporting details of a paragraph; (e) a vocabulary strategy to help students identify and define words in text; and (f) a sentence writing strategy to help students learn to write various types of sentences (Cantrell, 2013). English language arts teachers in this study also used strategies related to word identification, visual imagery, vocabulary, and paraphrasing to improve reading comprehension for all students and particularly for students not proficient in reading.

Other research supports the need for individualized instruction for students not proficient in reading that teachers in this study often provided. In a quasi-experimental study, Lovett et al. (2012) evaluated the efficacy of remediation for struggling readers in high school. The reading intervention that these students experienced was called PHAST PACES instruction, which emphasizes word identification strategies, knowledge of text structures, and reading comprehension. Lovett et al. found that, after 60 to 70 hours of intervention instruction, high school students demonstrated significant gains on standardized tests related to work attack, word reading, and passage comprehension and on experimental measures of letter-sound knowledge and multisyllabic word identification. Lovett et al. concluded that an intervention framework for high school students not proficient in reading needs to be differentiated, comprehensive, intensive, and linguistically informed. In other research, Pretorious and Currin (2010) examined the effects of a reading intervention on reading in the home and on school language in a high

poverty environment. Pretorious and Currin found that when students who struggle with reading both at school and at home are given individual attention and time on task as they move from middle school to high school, their reading skills improve. In another study, Hawkins et al. (2011) explored the effects of individualized reading interventions on reading fluency and comprehension rates of six high school students reading below grade level. All students were identified with reading disabilities. Hawkins et al. found that repeated readings and vocabulary previewing in these individualized interventions led to improved reading fluency and comprehension rates for these high school students. This research is supportive because all of the English language arts teachers in this study individualized instruction duringTier 1 and Tier 2 reading interventions in order to meet individual student learning needs.

Monitoring Student Progress in Interventions

The key finding was that English language arts teachers used a variety of strategies to monitor student progress for all students during Tier 1 interventions and for students not proficient in reading during Tier 2 reading interventions. Some of these strategies included reviewing Read 180 and Achieve 3000 progress reports that measured individual student's reading levels, using informal classroom assessments, such as giving immediate feedback to students after reading complex text; and calling on students who typically did not answer reading comprehension questions.

Current research supports my finding. Lang et al. (2009) explored the effectiveness of reading interventions for high school students over a 3 year period in seven Florida high schools, using a pretest/posttest randomized control design. The three

interventions included Read 180, Reading Intervention through Strategy Enhancement (RISE), and the School Offered Accelerated Reading (SOAR) (as cited in Lang et al., 2009). Lang et al. also designed a control group where no interventions were conducted. Lang et al. found that at-risk students who participated in Read 180 and RISE performed better than high risk students who participated in SOAR. However, Read 180 produced the smallest reading gains for high-risk students and the largest gains for moderate-risk students. Lang et al. also found that Read 180 effectively addressed the needs of students reading above the fourth grade level because it is focused on building fluency and reading comprehension. SOAR produced the best overall growth for students in Grades 8 and 9. Lang et al. concluded that the majority of students who participated in these interventions showed some improvement in reading skills. This research supports the findings of this study because English language arts teachers at this high school also used computerized programs such as Read 180 and Achieve 3000 to consistently monitor reading progress for all students and particularly for struggling readers. In other supportive research, Searle (2010) developed an RTI guide for school leaders, which included a recommendation that a team of experts customize intervention plans to suit individual learners' needs. This team gathers and analyzes student performance data and determines the research-based instructional strategies that teachers need to use to address the problem. These interventions should be monitored regularly by the person administering the interventions, which is usually the teacher or reading specialist, in order to determine if the desired outcomes are achieved. Constant review is required. In this study, English language arts teachers followed the *High School Curriculum Handbook* designed as a

district framework for reading interventions. In an examination of the long-term results of a problem solving approach to RTI in comparison to a standard protocol model, Carney and Stiefel (2008) found that the standard protocol model requires similar interventions for all students with similar problems. They noted the following advantages of the standard protocol model: (a) training for all teachers to implement one intervention is easier than training teachers to implement different interventions individually; (b) no decision making process is required regarding what interventions to implement; (c) it is easy to assess the accuracy of implementation; (d) a large number of students can participate in the treatment protocol; and (e) group data can be analyzed according to certain baseline criteria. Progress monitoring is also implemented after baseline criteria are established. This research is supportive because English language arts teachers in this study also established baseline data and then implemented Tier 1 and Tier 2 reading interventions and monitored progress.

Professional Development about RTI

The key finding about professional development in RTI was English language arts teachers believed that they needed more professional development to develop a clearer understanding of how to teach reading to high school students, to provide more teacher collaboration time for sharing instructional strategies, and to provide training in reading instruction for all high school teachers.

Current research supports this finding. Windram, Bollman, and Johnson (2012) examined how RTI works in secondary schools in terms of building a framework for student success. In their study, Windram et al. described a system for administering a RTI

problem solving model within a secondary school and noted that quality implementation of RTI includes assessment practices and instructional options designed to meet the needs of all students, as well as systems for ongoing decision making, which are data driven to meet the needs of individual students. They suggested the following steps for implementing a problem solving RTI model in secondary schools: (a) establish a commitment to educate all students through ongoing consensus building, (b) establish a RTI building-based leadership team, (c) implement the assessment, (d) implement instruction based on data, and (e) help educators at each school to understand a problem solving approach and implement a problem solving process. Windram et al. concluded that the effectiveness of the problem solving RTI model varied according to different sites, but fidelity of implementation improved student success. This research is supportive because even though the English language arts teachers at this high school used a standard protocol RTI model rather than a problem solving model, they expressed a need for establishing a commitment to improving student achievement in reading for all students through a better understanding of the RTI model and more collaborative time to build consensus about effective instructional strategies.

In other supportive research, Dulaney (2013) explored how to build systematic processes of facilitation, collaboration, and implementation at the middle school level when implementing RTI. Dulaney recommended that professional development related to the RTI model should focus on differentiated instruction because teachers need assistance in meeting the individual learning needs of those students who are not proficient in reading. The English language arts teachers at the study's high school did not specifically

suggest additional professional development in differentiated instruction, but they expressed the need for a better understanding about how to teach reading at the high school level.

In other research about reading instruction professional development, Amendum and Fitzgerald (2013) investigated how reading instruction and professional development impact student reading growth in a high poverty setting. They found that students who are provided with strong instructional support from teachers demonstrate significant growth in reading. They also found that professional development in reading for teachers is worthwhile because a collaborative effort among teachers is needed in order to yield the best results for struggling readers at the middle and high school levels. English language arts teachers in my study also recommended additional collaborative time to discuss and share best practices to improve student reading achievement in their classrooms.

Implementing Intervention Instruction and Assessment

The key finding was that teachers implemented used formal and informal assessments to place students in Tier 1 and 2 reading interventions in the classroom, and they used a variety of scaffolding strategies to differentiate instruction for all students and to individualize instruction for students identified as not proficient in reading. In addition, teachers used computer-based programs to monitor and assess student progress in reading.

In relation to using formal and informal assessments to place students in Tier 1 and Tier 2 reading interventions in the classroom, research is supportive. Tolar et al.

(2012) explored maze tasks for middle school student, which were defined as multiple-choice cloze tasks that students complete while silently reading a short passage. Tolar et al. noted that teachers used the *Texas Assessment of Knowledge and Skills* (TAKS) and the AIMS assessment, which measures fluency and comprehension, to place students in reading interventions. Tolar et al. found that gains were greater for students who read the same passage during each assessment than for students who read a new passage during each assessment. Tolar et al. also found that when students read the same passage over multiple occasions rather than novel passages over time, student performance improved. In this study, English language arts teachers also used state assessment results to place students in reading interventions; however, they did not use cloze tasks for assessment purposes. In other related research, MacCallum et al. (2011) described a model for screening twice-exceptional students (i.e. gifted with learning disabilities) within a RTI paradigm. Students were asked to (a) silently read brief selected passages; (b) perform a three-part task, which involved ask, read, and tell (ART), before, during, and after reading the selected passages; and (c) participate in a peer discussion of the reading. Students also answered 10 questions following the reading. MacCallum et al. found high levels of reading comprehension using the ART comprehension exercise. This research is relevant because in this study, English language arts teachers also used essential questions to access students' prior knowledge to help them read the text, and they used critical thinking skills to help students describe the plot of a short story or novel. In another study, Crawford (2014) examined the role of assessment in the RTI model. Crawford noted that the components for placement and assessment in the RTI model

include (a) an agreed-upon definition of student success at each tier of support; (b) the use of valid and reliable measures of student performance for placement, and (c) the graphing of student progress data as opposed to point-in-time performance data. Crawford also noted that assessment in the RTI model should include (a) screening all students in the school fall, winter, and spring quarters; (b) identifying low achievers and monitor them monthly; (c) and monitoring students needing intensive interventions at least weekly. Crawford concluded that the assessment system for RTI should provide data for informed decision making on the basis of normative data or established benchmarks, use reliable measures, and provide visual illustrations of a student's progress over time. In this study, English language arts teachers used the *Gates/MacGinitie Diagnostic Reading Assessment* as a formal assessment three times a year to place students in reading interventions, as well as informal assessments, such as timed readings and writing samples related to reading selections.

Concerning the use of scaffolding to differentiate instruction for all students during Tier 1 interventions and to individualize instruction for students not proficient in reading during Tier 2 interventions, research is also supportive of the study findings. Benboom and McMaster (2013) compared lower-resourced and higher-resourced Tier 2 reading interventions for Grade 10 students at two rural high schools in the Midwest. The purpose of this study was to examine the effectiveness of a Tier 2 intervention focused on improving reading fluency and comprehension by comparing the effects of a teacher-directed intervention to a peer-mediated intervention. Benboom and McMaster found little difference between these two intervention approaches. Benboom and McMaster also

found that some students need more explicit differentiated instruction, including modeling and feedback that targets other basic reading skills, such as decoding and word analysis strategies. In this study, English language arts teachers modeled expectations with explicit examples so students understood what was expected of them in responding to complex text. They also modeled the use of word analysis strategies such as context clues. In other research, Wexler et al. (2010) explored the efficacy of repeated reading and wide reading practice for high school students with severe reading disabilities. Teachers asked identified students to work with a peer in reading the same text three times each day. Each partner read the same text three times, exposing the pair to one text six times. Wexler et al. found that these students required more intensive interventions related to word-level and text-level skills. For this study, the English language arts teachers also asked students not proficient in reading to explain the meaning of words in context and to re-read portions of a text for understanding. In a quasi-experimental study, Lovett et al. (2012) evaluated the efficacy of remediation for struggling readers in high school. The reading intervention was called PHAST PACES instruction, which emphasized word identification strategies, knowledge of text structures, and reading comprehension. Lovett et al. found that some students had extensive gaps in letter-sound recognition, vocabulary, text knowledge, and decoding skills and needed to be exposed to age appropriate text, even though they were still building basic reading skills. For this study, the English language arts teacher who worked with ESL students also taught vocabulary by explaining the function of words in sentences to improve their vocabulary. Some ESL students also needed extended time in completing assignments, and they

needed comprehension questions reduced in order to complete these assignments. However, other English language arts teachers in this study required students identified as not proficient in reading to read age-appropriate stories and novels, even though they were not proficient in basis reading skills. In other related research, Hawkins et al. (2011) explored the effects of two reading interventions on reading fluency, comprehension, and comprehension rates of six high school students reading below grade level and found that repeated reading and vocabulary previewing led to improved reading fluency and comprehension for these high school students. This research is relevant because English language arts teachers also individualized instruction for students not proficient in reading, such as previewing vocabulary with them prior to asking them to read difficult text and engaging them in repeated readings. Teachers also used timed readings with these students to improve their reading fluency.

In relation to progress monitoring, research is supportive of the findings of this study that teachers monitored and assessed student progress frequently, often by using computerized programs. Cheung et al. (2013) conducted an examination of educational technology programs over a 20 year period in a study that included 7,000 students in Grades 1-6 who demonstrated low reading scores. These students participated in curricular intervention programs such as Read, Write, and Type, the Lindamood Phoneme Sequence Program, Read 180, Read About, and Fast For Word. Cheung et al. found that Read 180 is successful as a reading intervention at the secondary level because student achievement in reading improves. In another study, Crawford (2014) noted that assessment in the RTI model should include (a) screening all students in the school fall,

winter, and spring quarters; (b) identifying low achievers and monitor them monthly; (c) and monitoring students needing intensive interventions at least weekly. For this study, English language arts teachers used both the Read 180 and Achieve 3000 computer-based programs to monitor student progress in reading weekly. These teachers also used computerized district assessments to monitor progress every quarter.

Conceptual Framework

The conceptual framework for this study was based on Vygotsky's (1929) cognitive development theory, particularly in relation to the elementary and higher mental functions of cognitive development and the zone of proximal development. According to Vygotsky, teachers should implement specific strategies to help children develop particular elementary mental functions, such as simple memory, simple perceptions, involuntary attention, and syncretic or pre-conceptual thinking. In addition, Vygotsky also believed that teachers should implement specific strategies to help children develop particular higher mental functions, such as logical memory, categorical perception, voluntary attention, and conceptual thinking. In order to determine the elementary and higher mental functions that students have not yet mastered, Vygotsky believed that teachers should assess student outcomes to determine the instructional strategies that they will use to help students master these elementary and higher mental functions. In relation to the zone of proximal development, Vygotsky (1934) defined it as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. Vygotsky

contended that learning tasks need to be structured as collaborative teacher-student activities because these strategies are necessary so that a teacher is able to determine a child's readiness to develop elementary and higher mental functions.

This conceptual framework supports the key findings of this study. In relation to the use of formal and informal assessments to determine student readiness for learning, Vygotsky (1929) suggested that educators use the following four strategies to determine these higher mental processes:

> (a) demonstrate solving the problem and observe whether the child can imitate the demonstration, (b) begin solving the problem and ask the child to complete the solution, (c) ask the child to cooperate with another more advanced child in solving the problem, or (d) explain the process of solving the problem to the child, ask leading questions, analyze the problem for the child. (as cited in Gredler, p. 328)

English language arts teachers in this study demonstrated the use of Vygotsky's four strategies. They used modeling to observe whether or not students could complete instructional tasks. Teachers also asked students to respond to reading comprehension questions to determine if they could answer them accurately. Teachers used the pair/share strategy so that more advanced readers could help students who were not proficient in reading. Teachers also used essential questioning to guide students through a problem solving process with the goal of improving reading comprehension.

In relation to instruction, Vygotsky believed the teacher played an important role in collaboration and scaffolding, which requires teacher modeling, explaining, and asking

the student for explanations. The findings of this study support Vygotsky's beliefs about the role of the classroom teacher in helping students learn. English language arts teachers in this study implemented specific differentiated instructional strategies related to modeling and explaining in order to determine a student's readiness to learn. For example, an ESL teacher used modeling by demonstrating the function of words in a sentence structure so that ESL students could improve their vocabulary and reading comprehension skills. In another classroom, a teacher used modeling by presenting an example of a response to a critical thinking question that students would need to complete in their journals. Another teacher used modeling by demonstrating the function of a word on the whiteboard. Several English language arts teachers also used the strategy of explaining by reviewing the TAGGTT strategy prior to asking students to apply it to a short story. Other teachers explained how to complete the *Gates/MacGinite Diagnostic Reading Assessment* and how to use the computerized homework program. In addition, teachers asked students to explain their answers to critical thinking questions in relation to a novel and three different short stories that students read in various classrooms. In the Grade 12 AP English course, students were asked to explain the reasoning behind their answers. Teachers also asked students to describe characters and the author's purpose in a short story. In the ESL classroom, the teacher asked students to explain how they developed their paragraphs as they worked in pairs and shared their work with the entire class, explaining the logic behind their approach. Another teacher asked students to explain why characters names were important in a short story.

In relation to progress monitoring, Vygotsky (1929) believed that students should be able to acquire other related concepts following mastery, students should be able to function independently at the conclusion of instruction, and students' skills should generalize to other settings and situations. In this study, English language arts teachers used reports from Read 180 and Achieve 3000 to monitor student progress in Tier 1 and Tier 2 reading interventions in the classroom. These teachers also monitored student progress by checking individual student progress on assignments, talking to students about missing assignments, calling on students who typically did not participate in classroom discussions in order to check their reading comprehension, and conferencing individually with students to discuss their current reading progress.

Limitations of the Study

The limitations of this study are related to the research design. The first limitation is related to the transferability of the findings for this single case study. This study was conducted at a single rural high school in the southwestern region of the United States with a total enrollment of 1,577 students in Grades 9-12 during the 2014-2015 school year. Participants included five English language arts teachers at this high school who provided reading interventions for identified students. Therefore, the results of this single case study may be transferable only to rural high schools with similar student and teacher populations.

The second limitation is related to the amount of time that I, as a single researcher, was able to spend collecting data at the research site. I interviewed these teachers only once, and I conducted only one observation of reading interventions in their

classrooms, which provides a limited snapshot of intervention instruction in reading and therefore could impact the findings of this study. This case study might have produced richer findings if I had collected data from multiple interviews and observations over a longer period of time.

The third limitation is related to the participants. In particular, the absence of a reading teacher who implemented Tier 2 interventions may have impacted the findings. In addition, the findings might have been richer if all of the 11 English language arts teachers in the department, rather than only five teachers, had participated in this study.

Recommendations for Research

These recommendations for research are related to the strengths and limitations of this study. The first recommendation is related to the finding that English language arts teachers believed they needed more professional development about how to teach reading to high school students. In addition, English language arts teachers believed that they needed more professional development about the RTI implementation process in order to develop a clear understanding of the model. English language arts teachers also wanted more time to share best practices for reading instruction in the high school classroom. Therefore, more research needs to be conducted about best practices in professional development related to the RTI implementation process, particularly concerning how teachers use collaborative time to share student performance data in reading and instructional strategies that help students become better readers.

The second recommendation is related to the finding about progress monitoring, which is that teachers used computerized programs to frequently monitor and assess

student progress in reading, particularly for students not proficient in reading. The recommendation is that future research should be conducted to explore how educators collect data using these computerized programs, particularly in relation to moving students between Tier 1 and Tier 2 interventions and helping students to exit these interventions so that a clear picture of intervention progress can be presented.

A third recommendation is related to the limitations of this study. This study should be replicated in urban and suburban school districts or in other rural school districts in different regions of the United States to determine if the findings are similar. In addition, this study could be replicated in these school districts by conducting multiple interviews and observations over a longer period of time and including reading specialists as well as teachers. This study could also be conducted at the middle school level where there is a need for additional studies regarding Tier 1 and Tier 2 reading interventions.

Implications for Social Change

This study will contribute to positive social change in several ways. The first contribution to social change is that this study makes an original contribution to educational research because researchers have conducted few studies at the high school level about how English language arts teachers implement instruction and assessment during Tier 1 and Tier 2 interventions in their classrooms, particularly in rural high schools. This study also advances knowledge about how English language arts teachers at the high school level use scaffolding techniques to differentiate instruction for all students during Tier 1 reading interventions and to individualize instruction for students identified as not proficient in reading during Tier 2 reading interventions. In addition, this

study advances knowledge about how high school English language arts teachers monitor student progress in reading by using computerized programs and other assessment strategies. This study also advances knowledge about the professional development needs of teachers who are employed in rural school districts in relation to implementing a RTI model at the high school level.

The second contribution that this study makes to positive social change is in relation to improved professional practice concerning reading interventions. One of these improvements concerns the use of computerized programs to individualize instruction and monitor progress for students not proficient in reading. In this study, rural high school English language arts teachers used research-based computer reading interventions such as Read 180 and Achieve 3000 to monitor student reading progress in order to improve skills in reading comprehension, vocabulary, and fluency. Teachers in this study also used formal and informal assessments and district quarterly assessments to move students from Tier 1 to Tier 2 reading interventions. Teachers also followed the state RTI manual and the district curriculum handbook, about how to implement the RTI model in their classrooms. Thus, these practices have the potential to improve professional practice related to reading interventions.

The third contribution to positive social change is that this study may provide educational stakeholders with a deeper understanding about the resources that are needed to develop a new culture of classroom learning. These resources include improved professional development and instructional materials. English language arts teachers expressed the need for additional professional development about implementing the RTI

model in their classrooms. They also recommended more collaboration time in order to meet as a professional learning community and share best practices for implementing reading interventions in their classrooms. These teachers also recommended training in research-based reading interventions so they could more effectively address the learning needs of students not proficient in reading. In addition, English language arts teachers recommended that curricular materials are needed that address the needs of students not proficient in reading, such as the new textbooks they had received that included differentiated instructional strategies for teaching literature and the new computerized program called FLEX for monitoring student progress.

Conclusion

The key finding for this single case study was that teachers used formal and informal assessments for placement of students in Tier 1 and Tier 2 reading interventions, and they used a variety of scaffolding strategies to differentiate instruction for all students during Tier 1 interventions and to individualize instruction for students not proficient in reading during Tier 2 interventions. In addition, they used computer-based programs to frequently monitor and assess student progress.

Many high school students are not proficient in reading, and therefore, high school teachers need to be trained in research-based instructional practices in reading in order to help these students improve their reading skills. Implementation of the RTI model is mandated in all states, and therefore, resources need to be made available to all classroom teachers so that they can help students who are not proficient in reading, including a process for identification and placement of students in reading interventions,

examples of effective instructional strategies that teachers could use during Tier 1 and Tier 2 reading interventions, and examples of how to monitor and assess student progress. In order to help all students become proficient readers, teachers need to be able to quickly and efficiently identify students not proficient in reading and to provide instruction at the beginning of the school year, as well as to monitor and assess progress weekly and quarterly using curriculum-based measures. This study also revealed the need for a deeper understanding about the curricular and instructional resources that teachers need in the high school classroom in order to address the individual learning needs of all students so they have the opportunity to become fully literate members of society. Each and every student should have the opportunity to become a proficient reader in order to graduate on time with the skills and concepts that are needed to become lifelong learners.

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Appendix A: District Letter of Cooperation

May, 2015

Dear Mrs. Barry,

Based on my review of your research proposal, I give permission for you to conduct the study titled *Tier 1 and Tier 2 Reading Interventions in English Language Arts Classrooms at a Rural High School* in this school district. As part of this study, I authorize you to contact the English language arts teachers and the reading teacher at the high school in order to conduct individual teacher interviews and classroom observations of reading interventions in each of their classrooms and to ask these teachers to review the tentative findings for this study for their credibility. I understand that the participation of these teachers will be voluntary and at their own discretion.

We understand that our organization's responsibilities include the use of a conference room at the high school in order to ensure privacy for the interviews. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Institutional Review Board (IRB) at Walden University.

Sincerely,

Interim Superintendent

May, 2015

Dear Mrs. Barry,

Based on my review of your research proposal, I give permission for you to conduct the study titled *Tier 1 and Tier 2 Reading Interventions in English Language Arts Classrooms at a Rural High School* in this school district. As part of this study, I authorize you to contact the English language arts teachers and the reading teacher at the high school to conduct individual teacher interviews and classroom observations of reading interventions in each of their classrooms and to ask these teachers to review the tentative findings for this study for their credibility. I understand that the participation of these teachers will be voluntary and at their own discretion.

We understand that our organization's responsibilities include the use of a conference room at the high school in order to ensure privacy for the interviews. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Institutional Review Board (IRB) at Walden University

Sincerely,

Principal

Appendix B: Invitation Letter

Dear Potential Participants,

My name is Irene Barry, and I am a PhD candidate at Walden University, which is an accredited institution of higher learning. I am also a high school English language arts teacher in a neighboring school district. I am conducting a research study about how English language arts teachers scaffold instruction and assessment during Tier 1 and Tier 2 reading interventions at the high school level. You are invited to participate in this study because you are an English language arts teacher or a reading specialist at the high school in this school district and you are currently implementing Tier 1 and Tier 2 reading interventions.

The superintendent and the high school principal in this school district have given me permission to conduct this study. I have also attached a consent form that describes the data collection process.

If you are interested in participating in this study, please sign the attached consent form and return it to me in the enclosed self-addressed, stamped envelope as soon as you can.

Thank you for considering participation in this research study.

Sincerely,

Irene Barry
PhD Candidate
Walden University

Appendix C: Teacher Consent Form

You are invited to take part in a research study about Tier 1 and Tier 2 reading interventions at the high school level. You are invited to participate in this study because you are an English language arts teacher or a reading specialist at the high school in this school district. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether or not to participate.

This study will be conducted by a researcher named Irene Barry, who is a doctoral student at Walden University and who is a high school English teacher in another public school district located in this state.

Background Information:

The purpose of this study is to explore how high school English language arts teachers scaffold instruction and assessment during Tier 1 and Tier 2 interventions in reading in their classrooms.

Procedures:

If you agree to participate in this study, you will be asked to:

•participate in a 30 minute individual interview in an office conference room at the high school during non-instructional hours

•allow the researcher to conduct one observation of Tier 1 and Tier 2 reading interventions in your classroom where the researcher will look for scaffolding and implementation of tier 1 and tier 2 interventions.

•answer 3 questions in an reflective journal, which may take up to 30 minutes and will be collected after the observation.

Here are some sample interview and reflective journal questions:

1.How do you scaffold instruction in Tier 1 and Tier 2 interventions in your classroom?

2.How do you scaffold assessments in Tier 1 and Tier 2 interventions in your classroom?

3.What professional development do you believe high school English language arts teachers need in order to effectively implement Tier 1 and Tier 2 reading interventions in the classroom?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision about whether or not you choose to participate in this study. No one in this school district will treat you differently if you decide not to participate in this study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Participating in this Study:

Participating in this study will not pose risk to your safety or wellbeing. However, you may find some of the interview and reflective journal questions challenging to answer. The potential benefit of this study is that you may develop a deeper understanding about how teachers scaffold instruction and assessment during Tier 1 and Tier 2 interventions in their classrooms.

Payment:

There will be no compensation for participation in this study.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research study. In addition, the researcher will not include your name or anything else that could identify you in the study reports. Pseudonyms will be used for the school district, the school, and the participants. Data will be kept in a secure location and maintained for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher at 970-903-9285 or at irene.barry@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott, who is the Walden University representative who can discuss this topic with you. Her phone number is 612-312-1210. Walden University's approval number for this study 06-26-15-0157842 , and it expires 6-26-20.

The researcher will give you a copy of this form to keep.

Please keep this consent form for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing this consent form, I understand that I am agreeing to the terms described above.

Participant's Printed Signature Date of Consent

_____

Participant's Signature

_____

Researcher's Signature

_____

Appendix D: Interview Protocol

Scaffolding: A term introduced in recent years to describe the process of controlling task elements that are initially beyond the learner's capacity (Gredler, 2009).

Interview Questions

1.How do you define the difference between Tier 1 and Tier 2 interventions in reading?

2.How do you determine student placement in Tier 1 reading interventions in your classroom?

3.How do you determine student placement in Tier 2 reading interventions in your classroom?

4.How do you scaffold instruction for Tier 1 reading interventions in your classroom?

5.How do you scaffold instruction for Tier 2 reading interventions in your classroom?

6.How do you monitor student progress in Tier 1 reading interventions?

7.How do you monitor student progress in Tier 2 reading interventions?

8.How do you scaffold assessments in Tier 1 reading interventions in your classroom?

9.How do you scaffold assessment in Tier 2 reading interventions in your classroom?

Appendix E: Observation Data Collection Tool

Field Notes *Researcher Reflections*

Classroom Setting

--Instructional space

--Technology

--Print and non-print materials

Classroom Participants

--Number

--Gender

--Type

Tier 1 Interventions

--Lesson objectives

--Instructional scaffolding

--Progress monitoring

Tier 2 Interventions

--Diagnostic assessments

--Instructional scaffolding

--Progress monitoring

Student Engagement

--Conversation between student and teacher

--Conversation among students

Researcher's Presence

--Location in the room

--Involvement in instructional activities

--Awareness by students and teacher of researcher presence

Appendix F: Reflective Journal Questions

These reflective journal questions will be emailed to teachers at the end of the interview process, and teachers will be asked to email them to me after the observations.

1.Describe the professional development that you received about reading interventions prior to implementing Tier 1 and Tier 2 interventions in your classroom.

2.Describe the professional development that you currently receive about Tier 1 and Tier 2 reading interventions.

3.What professional development do you believe high school English language arts teachers need in order to effectively implement Tier 1 and Tier 2 reading interventions in the classroom?

Appendix G: Alignment of Interview and Reflective Journal Questions to Research Questions

Central Research Question

How do high school English language arts teachers scaffold instruction and assessment during Tier 1 and Tier 2 reading interventions in their classrooms?

1. How do you scaffold instruction for Tier 1 reading interventions in your classroom? (Interview question)

2. How do you scaffold instruction for Tier 2 reading interventions in your classroom? (Interview question)

3. How do you scaffold assessments in Tier 1 reading interventions in your classroom? (Interview question)

4. How do you scaffold assessment in Tier 2 reading interventions in your classroom? (Interview question)

Related Research Questions

1.How do high school English language arts teachers use assessments to determine student placement in Tier 1 or Tier 2 reading interventions?

•How do you determine student placement in Tier 1 reading interventions in your classroom? (Interview question)

•How do you determine student placement in Tier 2 reading interventions in your classroom? (Interview question)

2. How do high school English language arts teachers provide instruction during Tier 1 or Tier 2 reading interventions?

•How do you scaffold instruction for Tier 1 reading interventions in your classroom? (Interview question)

•How do you scaffold instruction for Tier 2 reading interventions in your classroom? (Interview question)

3. How do high school English language arts teachers monitor student progress in Tier 1 and Tier 2 reading interventions?

•How do you monitor student progress in Tier 1 reading interventions? (Interview question)

•How do you monitor student progress in Tier 2 reading interventions? (Interview question)

4. What professional development do high school English language arts teachers need to effectively implement Tier 1 and Tier 2 reading interventions?

•Describe the professional development that you received about reading interventions prior to implementing Tier 1 and Tier 2 interventions in your classroom. (reflective journal question)

•Describe the professional development that you currently receive about Tier 1 and Tier 2 reading interventions. (reflective journal question)

•What professional development do you believe high school English language arts teachers need in order to effectively implement Tier 1 and Tier 2 reading interventions in the classroom? (reflective journal question)