

Evaluating Tier II Reading Instruction with High School Sophomores in a Response to
Intervention Framework

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Dedication

This dissertation is dedicated to my parents, who instilled in me that learning is always a worthy endeavor, and my children, for whom I hope I have instilled the same value.

Abstract

The purpose of this study was to compare the effects of peer-mediated versus teacher-directed reading interventions on the reading performance of high school sophomores in a pretest/posttest randomized group design with a non-equivalent control. Participants ($N=57$) identified as being in the lowest 25th percentile of their class based on reading fluency and comprehension measures, including maze selection, oral reading fluency, and standardized test scores were assigned randomly to either peer-mediated or teacher-directed intervention. Fifteen to sixteen 25-minute intervention sessions occurred over 12 weeks and included listening passage preview, retelling, and main idea questioning. Linear regression was used to determine main effects for pre-test scores, treatment group, and minutes of intervention for all measures. Both groups performed significantly better than a non-equivalent control group who did not receive either intervention, with effect sizes of .69-1.00. Students in the peer-mediated group performed at least as well as those in the teacher-directed group, with the peer-mediated intervention being less resource intensive. Peer-mediated intervention participants had the most passing scores on the Minnesota state assessment, as well as the highest percentage of students ending with maze selection scores above the median. Findings support the use of standard protocol, Tier 2 intervention to improve reading outcomes for struggling secondary-level readers.

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CHAPTER I

INTRODUCTION

Problem

Students in U.S. schools have not achieved at adequate levels in reading (Lee, Grigg, & Donahue, 2007). Although the importance of improved reading achievement for students of all ages is not debated, a majority of research attention has focused on intervention in the early grades (Biancarosa & Snow, 2004). Yet, the stakes only increase as students progress into secondary grades and approach graduation. As many as 70% of secondary students require some form of remedial reading instruction to develop adequate reading skills for success in life after high school (Biancarosa & Snow). These struggling readers have an increased chance of dropping out of high school and a decreased chance of getting post-secondary training that is often necessary for 21st-century jobs (Balfanz, Legters & Jordan, 2004). Thus, the "...disparity between the demands of modern life and the inadequate literacy achievement of eight million struggling readers and writers has... given a new urgency to the need for reform" (Biancarosa & Snow, p.31) . Achievement gaps have a negative impact on both students and society. The ultimate result is "...lower wages and living standards for individuals and a country that is less competitive globally," (Johnson, 2005, p. 32). Indeed, 40% of high school graduates lack the reading skills that employers need.

Secondary teachers face the challenging task of improving the achievement of all students despite increasingly diverse experiences and learning histories. The limited time available before high school students graduate or drop out adds to the urgency for increasing student outcomes (FaggellaLuby & Deshler, 2008). Historically, educators

have focused support for secondary students on providing more time to access learning, with less emphasis on addressing curricular and instructional means of accelerating learning (Balfanz et al., 2004). This approach has not produced the needed changes in student outcomes, highlighting the need for instructional reform.

In terms of resource allocation in schools, it would not be feasible to do extensive problem solving and in-depth analysis of the learning characteristics for every struggling secondary student to determine their precise instructional needs. Therefore, core instruction that addresses the instructional needs of most learners and explicit, “standard protocol” interventions that meet the needs of many of the struggling learners are critical to student success in secondary settings. Standard protocol interventions are empirically-validated interventions that are explicitly designed to address common educational deficits, and teachers can be readily trained and coached in the implementation of the intentionally designed intervention steps (Vaughn, et al, 2008). Ensuring the adequacy of reading interventions for achieving measureable progress in reading skill and ensuring the fidelity of their implementation are critical requirements of the instructional reform needed at the secondary level.

Instructional Reform and Response to Intervention

Reforming reading instruction for secondary students requires application of what researchers and educators know about learning for all students, as well as consideration of the unique challenges older students face. The generally-accepted means of addressing a skill deficit is to assign an intervention that is adequately matched to that need (Christenson & Ysseldyke, 1989; Mastropieri & Scruggs, 1997). This instructional match requires that students receive explicit instruction in the skills they are lacking and

that those skills are effectively increased in an efficient manner. Instructional decisions are made and educational resources are allocated with the intent that learner outcomes are achieved in the limited time available.

One paradigm that has been explored to better match explicit learning opportunities to student needs is Response to Intervention (RTI). The RTI framework is a structured problem solving model for making data-based instructional decisions for students struggling with academics and/or social behavior. Within this framework, student learning is addressed through tiers of instruction to provide students with the necessary support to meet system-established benchmarks. From the preventative perspective, RTI is a process by which "...decisions regarding changing or intensifying an intervention are made based on how well or how poorly a student responds to an evidence-based intervention that is implemented with integrity" (Jimerson, Burns, & VanDerHeyden, 2007, p. 10) . This framework can also be used as a means of determining eligibility for special education services.

Whereas a growing research base has addressed many components of RTI for beginning readers (see Foorman, 2007; Stecker, 2007; Vaughn & Roberts, 2007 for descriptions of the primary, secondary, and tertiary tiers of RTI for young readers), less research has addressed the application of screening, progress monitoring, and intervention in an RTI framework at the secondary level (Vaughn et al., 2008). Although older readers may experience some of the same difficulties with reading as younger students, their needs are complicated by the "...accumulated negative outcomes associated with low levels of reading" (Vaughn et al., p. 338). These negative outcomes may include limited word and concept knowledge, limited knowledge in the application

of comprehension strategies, and reduced motivation to learn to read. Fuchs, Fuchs, and Compton (2010) discuss unique considerations for RTI at the secondary level due to the complexities of learner struggles at this level. They propose that reading intervention with secondary students should be intense (as typically construed in Tier III for elementary students), and then reduced in intensity as the needed progress is demonstrated. In addition, they note that the complexities of learner needs at the secondary level and the importance of peer endorsement for intervention at this age may change the nature of the interventions applied at the secondary level.

Vaughn et al. (2010) responded to the Fuchs et al. (2010) interpretation by concurring that secondary RTI may be fundamentally different than elementary RTI and that progressing from Tier I to Tier III may not be necessary if students are directly assigned to interventions based on the degree of need exhibited. Both Vaughn et al. and Fuchs et al. discussed the fact that screening data may not be as critical in secondary school, where years of academic data are available to identify students who need additional instruction. Vaughn et al. then questioned whether greater emphasis should be placed on Tier I (core instruction) and the intensive Tier III (given the history of limited progress and limited time available) at the high school level, with less emphasis at Tier II (Vaughn, et al., 2010). As the research base for effective reading interventions at the secondary level builds, the kinds of student needs that may be served effectively with Tier II, standard protocol interventions--which are less resource intensive than Tier III--need to be explored.

If Tier II interventions are to be effective and efficient, they need to be designed such that they accurately target an identified instructional need of a group of students.

Instructional needs that require intervention may include acquiring new skills or becoming more proficient with existing skills, a contrast explored in the Instructional Hierarchy (IH; Haring, Lovitt, Eaton & Hanson, 1978). The conceptualization of the IH grew out of research indicating that, “Procedures which were tremendously successful for children who did not have a skill in their repertoire no longer worked when they were trying to apply that skill” (Haring, et al., p. 25). If resources can be correctly targeted to well-designed interventions that address an identified instructional gap, there may be a place for Tier II interventions in secondary schools.

In addition to determining instructional needs, it is necessary to identify quality reading interventions that are expected to be effective with a high school population. Intervention components that have been shown to be effective for remediation include reviewing previous learning, clarifying learning objectives, presenting new information, guiding practice, allowing for independent practice, and monitoring students’ skill development, particularly in small groups (Swanson, 1999). Peer-mediated learning has also been shown to increase the motivation of secondary students to participate in instruction (Gersten, Fuchs, Willams, & Baker, 2001; Mastropieri, Scruggs, & Graetz., 2003). It is also necessary to determine the intensity of interventions (frequency, duration, and other dosage considerations) that are most efficient and effective for addressing students’ instructional needs (Faggella-Luby & Deshler, 2008).

Purpose and Contribution of the Study

The purpose of this study is to compare the effects of more and less resource-intensive Tier II approaches to secondary-level reading interventions. To provide a foundation for these interventions, I review research related to RTI, the instructional

hierarchy, and specific remedial reading instructional strategies that are expected to be effective with secondary students. The dosage decisions related to intervention implementation are also discussed. In the growing research base for reading interventions that are effective for secondary students, there is still a need to define critical intervention characteristics that create the most efficient improvements in critical learner outcomes. Following the review of the literature, I describe the study, in which empirically-based intervention components of listening passage preview, retelling, and summarization were employed. The effect of these interventions on the fluency and comprehension skills of tenth grade students was analyzed in peer-mediated and teacher-directed contexts.

Determining whether or not there are differences in the outcomes from these interventions at the high school level is intended to contribute to an understanding of efficient intervention design and resource allocation. If the more resource intensive teacher-directed intervention is more effective in addressing skill deficits, educational decision-makers need to weigh the cost of the intervention intensity with the benefits of improved student outcomes. However, if less resource intensive peer-mediated interventions are just as effective (or more effective) at the high school level, that evidence could lead to different educational decisions. Thus, the research questions addressed in this study were: (1) How do the effects of a standard protocol, peer-mediated intervention (conducted with groups of 8-12 students) on reading fluency and comprehension of 10th graders compare with the effects of a standard protocol, teacher-directed intervention (conducted with groups of 4-8 students) based on pre- and post-maze, pre- and post-ORF, and pre- and post-MAP scores? (2) How do these treatment

groups compare to a non-equivalent control group that did not receive a targeted reading intervention? (3) How do the percentage of students who passed the eighth-grade MCA compare to the percentage of students who passed the 10th-grade MCA across treatment groups? (4) Are differences observed in the proportion of pre-maze scores that are above or below the median as compared to the proportion of post-maze scores that are above or below the median across treatment groups? (5) Are there any observable differences in the trends of the average weekly progress monitoring maze selection scores by treatment group for those receiving intervention? The first two questions were the primary research focus, with the last three questions being secondary and of a descriptive nature.

CHAPTER II LITERATURE REVIEW

The problem addressed in this study is that there is limited empirical evidence for how to apply an RTI framework to reading challenges at the high school level. The research base is slowly growing to document interventions that are effective at the high school level, but many questions remain regarding the scheduling and necessary dosage of those interventions to maximize their effects in a relatively short amount of time (Faggela-Luby & Deshler, 2008; Warren, Fey & Yoder, 2007). As the timeline before graduation shortens, the history of academic failure lengthens, and the potential economic and social implications of academic deficits become more imminent (Balfanz, et al, 2004), schools must become even more efficient in translating instructional time to academic gain. This academic gain must be accomplished by efficiently allocating limited educational resources (Jimerson, et al., 2007).

The purpose of this literature review is to summarize research regarding effective approaches to providing reading interventions at the secondary level. The review includes the application of the RTI framework in a secondary context, a consideration of the learning process as defined by the IH, interventions that have been demonstrated to be effective for supporting reading fluency and comprehension for secondary students, and the intensity or dosage features of those interventions that translate to improved student learning. The research reviewed in this chapter served as the foundation for the dissertation study, which examined the impact of interventions of varying intensity on the reading performance of low-performing 10th graders.

Literature Search

PsychINFO, Education Full Text, and ERIC were the search engines used to generate this research review. Search terms were: (1) Instructional Hierarchy AND Reading, (2) Response to Intervention, (3) High School AND Reading Intervention, (4) Reading Instruction AND Error Correction OR Performance Feedback, (5) Reading Instruction AND Motivation OR Reinforcement, (6) Reading Instruction AND Peer-mediated, and (7) Reading Instruction AND Dosage OR Intensity. Particular attention was given to peer-reviewed research that involved English-speaking secondary-aged participants with or without disabilities published after 1990.

Research was included if it addressed acquisition or increased proficiency of skills related to reading fluency and comprehension with secondary students (over seventh grade). Similar research with elementary students was excluded from the review except for meta-analytic studies that were used to compare or explain the secondary literature. Seminal or relevant articles referred to in the selected articles were also reviewed. Particular attention was given to research that compared different intervention protocols or different intervention characteristics (e.g., peer-mediated versus teacher-directed).

Results

In this review, Response to Intervention (RTI) is explored as an organizational framework for how instructional needs can be addressed at the secondary level. This framework includes consideration of how resources are allocated to efficiently fill instructional gaps. Then, the Instructional Hierarchy (IH) is discussed as a means of determining what students need to learn. Specific intervention components for

addressing the acquisition and proficiency deficits in the areas of fluency and comprehension are then discussed. Fluency and comprehension were explored because researchers have documented that secondary students who struggle with reading skill most often have deficits in the areas of fluency and comprehension, as opposed to word study skills (Jetton & Dole, 2004). A brief discussion of the importance of motivation as an instructional component at the secondary level is included. Finally, knowledge about intervention intensity in terms of the level of teacher involvement and group size, the frequency and duration of intervention, and the frequency and intensity of data collection on desired outcomes is outlined.

Secondary RTI

At the high school level, the interaction between allocating resources and determining individual student need is impacted by the limited time remaining in public education to improve outcomes for struggling readers. In the RTI literature, interventions are discussed in tiers, indicating the level of resource allocation and intensity of data collection, data analysis, and intervention (Burns, 2007; Burns & Gibbons, 2008). Interventions that require relatively low resources and include a defined, standard protocol are commonly referred to as Tier II interventions (Vaughn & Roberts, 2007). Interventions that require more resources (e.g., increased teacher time, professional development, data collection and analysis, attention to individual student need) are termed ‘Tier III’ (Stecker, 2007). The challenge is to most efficiently apply the resources for the most effective achievement outcomes.

Although researchers have debated how to conceptualize RTI in secondary settings, only one study was found that explicitly addressed Tier II intervention with

secondary students. Vaughn et al. (2010) studied the impact of Tier II, standard protocol interventions with secondary students with minimal success in terms of closing the gap in fluency and comprehension scores. Their study included 327 sixth-grade struggling readers, with 212 of these students randomly assigned to the Tier II intervention and 115 assigned to the comparison group. There were also 249 sixth-grade typical readers. The Tier II intervention was a daily 50 min intervention with 10-15 students in each group. The intervention lasted one school year and focused on word study, vocabulary building, and comprehending expository and narrative texts through questioning and summarization. Tier II students outperformed comparison students on most measures, but did not close the gap with typical readers.

Vaughn et al. (2010) suggested that the small effects may have been partly due to the accentuated Tier I interventions that all students received, as well as the alternative Tier II interventions that the school provided to some of the students in the control group. Group size and time in treatment did not translate to differences in outcome measures, and the authors noted the difficulty of getting consistent intervention participation in the secondary context due to scheduling restraints. Vaughn et al. addressed the possibility that educators need to focus more on Tier I and Tier III instruction than on Tier II at the secondary level.

Vaughn et al.'s (2010) conclusions are consistent with Fuchs et al.'s (2010) suggestion that secondary RTI may require more immediate movement to more intensive (Tier III) interventions to achieve the desired outcomes. These interventions could then be reduced to Tier II as students demonstrate progress. In addition to consideration of the tiered structure of interventions, the RTI model relies on consideration of the specific

skills students have or do not have, interventions designed to address missing skills, and measuring skill development on a frequent basis, all of which are characteristics of behavior analysis of academic skills. These elements are the foundation of the Instructional Hierarchy (IH; Haring, Lovitt, Eaton, & Hanson, 1978; Ardoin & Daly, 2007).

Instructional Hierarchy

The instructional hierarchy was presented by Haring and colleagues over 30 years ago (Haring, et al., 1978). In discussing the impact of the instructional hierarchy over the past 30 years, Ardoin and Daly (2007) reiterated that the premise behind the instructional hierarchy is structuring antecedents and consequences for a learned behavior through instructional procedures to increase or strengthen the student response. This framework addresses the functional relationship between instructional approaches or strategies and the learning of skills. The information of interest is what the student needs to learn, what intervention will meet the learning need, and what means of frequent measurement will be used to monitor progress (Ardoin & Daly). In making intervention decisions, acquisition and proficiency of skills are typically the remedial focus and must be established before generalization of those skills (Daly, Lentz, & Boyer, 1996).

Acquisition versus proficiency in the instructional hierarchy. The following is a brief description of the hierarchy and the instructional goal often associated with each phase of learning:

- (1) Acquisition: The student is beginning to learn how to use the skill correctly but is not yet accurate in using the skill. The instructional goal in

this phase is increasing accuracy through demonstration, modeling, cues, and prompts (Daly, et al., 1996).

(2) Proficiency (or Fluency, meaning rate of accurate production, not to be confused with “reading fluency” as a specific reading skill involving rate, accuracy and prosody): The student is accurate but slow in using the skill. The instructional goal is increasing the student’s speed of responding through a high number of accurate practice opportunities with reinforcement (Ardoin, McCall, & Klubnik. 2007; Daly, et al.)

(3) Generalization: The student is accurate and fluent with the skill but is not able to use it in new situations. The instructional goal is to support the student in practicing the skill in a variety of situations (Ardoin, McCall, & Klubnik, 2007).

(4) Adaptation: The student is accurate and fluent in using the skill in a variety of situations but not able to adapt the skill to serve a variety of purposes. In most cases, this level of skill development is beyond the scope of remedial intervention and is often student and situation specific (Haring, et al.).

The application of this instructional hierarchy has been validated empirically in the context of remediating reading skills, often in the context of single subject design with elementary students (Chard, Vaughn, & Tyler, 2002; Daly, Martens, Hamler, Dool, & Eckert, 1999; Martens & Witt, 2004.). The IH has been applied to small group interventions as well (Bonfiglio, Daly, Persampieri, & Anderson, 2006; McCurdy, Daly, Gortmaker, Bonfiglio, & Persampieri, 2007). Studies were not found that applied this

heuristic directly to reading at the high school level, but the instructional components of the IH that are based in fundamental behavioral principles (e.g., modeling, practice) have been shown to be effective for secondary students (Edmonds et al., 2009).

Five reasons students fail. Although many researchers have sought an understanding of why students struggle with the learning process, the framework of hypotheses developed by Daly are helpful for researchers and practitioners alike (Daly, Witt, Martens, & Dool, 1997). These hypotheses are grounded within the instructional hierarchy research literature. The five reasons were derived from intervention studies and have been used to guide intervention selection. These reasons constitute a framework to functionally analyze an academic skill deficit. The five hypotheses and an example of a related intervention for each are as follows: (1) lack of adequate motivation for the task, indicating a need for choice and incentives; (2) lack of adequate time on task, indicating a need for increasing student opportunity to respond and practice skill; (3) lack of adequate help (prompting and feedback) to acquire a skill, such that increased modeling and error correction are needed; (4) lack of opportunity to practice the target skill in the needed context, requiring experience with multiple examples or contexts for use of the skill; and (5) materials or tasks are too hard, indicating the need for more appropriate materials and tasks (Daly, et al.). Materials and tasks need to be selected such that they allow the student to be accurate at least 93% to 97% of the time in an instructional context or 100% accurate for independent practice if learning is expected to be retained (Treptow, Burns, & McComas, 2007).

Most of these hypotheses fit easily into the instructional hierarchy, with the additional consideration for student motivation (Item 1) and instructional materials (Item

5). The question of adequate time (Item 2) relates to the need to develop proficiency.

The question of adequate help (Item 3) relates directly to the acquisition of the skill such that the student can perform the skill accurately. Finally, the question of using the skill in a new context (Item 4) is clearly an example of difficulty with generalization.

Identification of the skill deficit students demonstrate and the stage of that skill development based on the instructional hierarchy may serve as the foundation of intervention planning in an RTI framework at the secondary level. Specific skill deficits frequently targeted at the secondary level include reading fluency and reading comprehension.

Fluency and Comprehension Interventions

Some types of fluency and comprehension interventions have been shown to be effective with many students. Explicit fluency practice with immediate corrective feedback and comprehension practice with self questioning (for determining the main idea and summarizing) have moderate to large effects for increasing the academic success of students with learning disabilities (Mastropieri & Scruggs, 1997). At the secondary level, a summary of reading skill development documented the importance of guided practice, asking/answering questions, and peer tutoring in the learning process for this group of students specifically (Mastropieri, Scruggs, & Graetz, 2003). Torgeson et al. (2007) found that teachers had less impact on fluency at the secondary level ($ES = .26$) than they did on comprehension ($ES = 1.23$), and that providing vocabulary instruction, activating prior knowledge, building reasoning skills, and considering motivation were also important components of reading instruction. Across 31 studies that addressed these components of reading instruction, the overall effect size was found to be .95, with an

effect size of .42 when only standardized measures were considered (Torgeson et al.).

Edmond et al. (2009) also reviewed reading research at the secondary level and noted the importance of explicit work with comprehension strategies.

The importance of peer interaction, explicit practice, and direct response questioning has been reiterated by other researchers, with explicitness being the best overall predictor of instructional efficacy (Swanson & Hoskyn, 2001). The authors emphasized the finding that controlling task difficulty is also important in increasing the benefit of the explicit modeling and practice. Swanson and Deshler (2003) noted that “direct instruction” is what increases student learning for adolescents, clarifying that the effective components of direct instruction are teacher modeling, breaking tasks into steps, providing opportunities for distributed practice, and controlling task difficulty, all while giving students opportunities to work in small groups.

Direct instruction is applied to the five components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) at the elementary level (National Institute of Child Health and Human Development, 2000). At the secondary level, the skills struggling readers typically lack are in similar categories. Current research that addresses secondary-aged students has indicated that the critical components of reading for older struggling readers need to focus on word study, fluency, vocabulary, comprehension, and motivation (Roberts, Torgeson, Boardman, & Scammacca, 2008). Direct instruction includes modeling the skill for the student, pacing the task to maintain student engagement, monitoring student progress in acquiring the skill and developing proficiency with the skill, and providing immediate correction so that the student is not allowed to repeatedly practice a skill incorrectly (Carnine, Silbert,

Kame'enui, & Tarver, 2004). Fluency is developed by practicing reading aloud so that correction can be provided as needed, and comprehension is supported when readers are provided with vocabulary instruction and questions before, during and after reading that guide them to process the meaning of what is read (Carnine et al., 2004). A review of research indicated that the effect size for comprehension interventions with secondary students is large across multiple studies, while the effect size for fluency interventions is small, with word study intervention falling in the moderate range (Scammacca et al., 2007). This same review found greater effect sizes for middle school interventions (1.05) than for high school interventions (.78; Scammacca et al., p. 9). Consideration of whether the learning need is to acquire a basic reading skill or to increase proficiency with that skill may be one means of increasing the effectiveness of interventions at the high school level.

Acquisition of fluency and comprehension skills. If students have the foundational phonemic and phonic skills, but are not demonstrating progress in oral reading rate or comprehending what is read, they may need more modeling with reading connected text. Providing a fluent model in a listening passage preview (LPP) intervention has been shown to effectively prepare the student for more accurate oral reading (Wexler, Vaughn, Edmonds, & Reutebuch, 2008). Fluency is impacted by repeated exposures to text, but LPP has been shown to be more effective than silent previewing of text (Mastropieri & Scruggs, 1999).

Providing students with standard error correction when they read words incorrectly is critical for teaching accurate word reading. This instructional strategy has been shown to be more effective when it includes an active response from the student

instead of simply providing them with the correct word (e.g., student repeats the word, hears it again, and re-reads the sentence; McCurdy, Daly, Gortmaker, Bonfiglio & Persampieri, 2007; O'Shea, Munson & O'Shea, 1984). Walberg (1992) reviewed syntheses of over 8000 studies and found the largest instructional effects from reinforcement of correct performance and from corrective feedback when errors occur, both in the context of continuous engagement of learning.

In terms of acquiring comprehension strategies, the research synthesis by Edmond et al. (2009) indicated that students benefit when they are provided with modeling of self-questioning and opportunities to hear teachers think aloud while processing text. This finding is consistent with the meta-analysis of reading research with secondary students described above by Mastropieri et al. (2003), who also emphasized accurate and consistent implementation of comprehension strategy instruction, including the use of questions and summarization statements. Another review of the reading intervention literature found that self-monitoring and self-questioning strategies can be acquired with teacher modeling and peer think-alouds (Gerston, Fuchs, Williams, & Baker, 2001).

Proficiency with reading fluency and comprehension skills. Swanson and Deshler (2003) emphasize the importance of advance organization and explicit practice to increase skill proficiency. Proficiency with reading fluency is developed by practicing reading aloud so that correction can be provided as needed, and proficiency with reading comprehension is supported when readers are provided with vocabulary instruction and questions before, during, and after reading that guide them to process the meaning of what is read (Carnine et al., 2004). Although remediation of reading difficulties becomes more difficult after third grade (Al Otaiba & Fuchs, 2002), there is some evidence that

repeated exposure to text is effective in intermediate and upper grades (Morgan & Sideridis, 2006). Comprehension activities that seem particularly promising for secondary students include previewing text, questioning, and summarizing (Roberts et al., 2008).

Repeated reading is a type of intervention that allows elementary students to increase accuracy and prosody in their oral reading, which, in turn, allows for increased comprehension of what is read (Samuels, 1979). The research base for repeated readings for this instructional purpose has been building for over 30 years (Homan, Klesius, & Hite, 1993; LaBerge & Samuels, 1974; Mastropieri, Leinart, & Scruggs, 1999; National Institute of Child Health and Human Development, 2000; Rashotte & Torgesen, 1985; Samuels, 1979; Sindelar, Monda, & O'Shea, 1990; Therrien & Kubina, 2006). Although repeated readings and continuous reading both provide beneficial practice opportunities, research indicates that the time engaged in reading is what is critical for skill improvement (Kuhn et al., 2006; National Institute of Child Health and Human Development, 2000; O'Connor, White, & Swanson, 2008; Rashotte & Torgesen, 1985). Wexler, Vaughn, Edmonds, and Reutebuch (2008) found that having secondary students repeatedly read texts themselves was not more effective than the same amount of continuous reading, and that the greatest effect was observed when interventions included at least 20 sessions of at least 15 minutes in length.

Determining level of text difficulty for an effective reading intervention is another consideration for increasing reading skill proficiency. Treptow et al. (2007) replicated research by Gickling and Armstrong (1978), in which they examined the effect of text difficulty level on student comprehension and on-task behavior. Treptow et al. defined

three levels of text difficulty: instructional level (text that a student can read with 93% to 97% accuracy), frustration level (text that a student can read with 80% to 90% accuracy), and independent level (text that a student can read with 100% accuracy). They found that elementary students comprehended better when reading at their instructional level compared to their frustration level. They also found that students stayed on task longer when reading text at their instructional level compared to either their frustration or independent level. Findings of this research suggest that using material at a student's instructional level is one means of supporting accurate practice of applying comprehension skills that can ultimately be applied to more difficult texts. This research has not been replicated to determine the impact with secondary students. However, when planning for instructional intervention with secondary students, it is important to control the level of difficulty of the task (Swanson & Deshler, 2003), and consideration for material difficulty is one means of doing this. Appropriate task difficulty may also be one means of addressing critical motivational components of reading instruction at the secondary level.

Motivation during Reading Instruction

In a meta-analysis of 30 single subject studies with elementary-aged participants, Morgan and Sideridis (2006) found that the two reading intervention components with the largest effect sizes were goal setting with feedback and reinforcement. Although the research base is limited regarding motivating secondary students to engage in reading tasks, it is apparent that motivation becomes increasingly important for older students who continue to struggle with reading (National Research Council, 2004). Teachers can employ a variety of forms of motivation to enhance many students' engagement in

reading. Incentives, including behavior-specific positive feedback, can serve this purpose, as well as providing students with progress monitoring data that reflects their growth in reading (Deno, 1985; Walberg, 1992). The progress monitoring data can not only motivate students, but also inform instructional decision-making by providing an indication of whether or not an intervention is appropriately matched to the student's need.

Some research at the elementary level indicates that feedback and rewards are particularly beneficial for readers with less skill, and that practice alone is enough for more skilled readers (Chafouleas, Martens, Dobson, Weinstein, & Gardner, 2004). Goal setting, reinforcement (token economy), and feedback through student graphing of their oral reading fluency data has been demonstrated to be effective for middle school students (Dolezal, Weber, Evavold, Wylie, & McLaughlin, 2007). Margolis and McCabe (2006) describe five principles that can be applied to motivating learners. These include (1) using assignments that promote success, (2) providing relevant background information and pertinent vocabulary, (3) linking instruction to the interests of the readers, (4) using extrinsic reinforcers to create a sense of value and then fade those reinforcers, and (5) teaching readers who struggle to develop a sense of self efficacy and own their successes. Applying a motivational system that seems to engage the interest of the secondary student audience is another consideration in intervention design that cannot be ignored.

Intervention Intensity

Intervention Dosage. In matching instruction to student need, it is necessary to consider not only what is taught and how it is taught, but also how intensive the

intervention needs to be. Intervention intensity can refer to the frequency, complexity, or dosage of the intervention (Daly, et al., 2007). The latter is the least researched and is composed of factors such as group size (i.e., student-to-teacher ratio), length of instructional session, frequency of sessions, duration of individual sessions, and duration of the intervention overall (FaggellaLuby & Deshler, 2008). Warren et al. (2007) characterize “dose” as a combination of the rate and distribution of teaching episodes in a session and the length of that session. Research is needed to inform decisions of how intervention dosage is effectively applied at the secondary level. Such decisions must also take into consideration the power of the intervention and how easy the intervention is to use (Faggella-Luby & Deshler).

The importance of having powerful interventions is clear, but ease of use is also a critical consideration when planning professional development, considering necessary system supports, anticipating fidelity of implementation, and considering feasibility within the school context (FaggellaLuby & Deshler, 2008). Lack of attention to these components of the “ease of use factor” (Faggella-Luby & Deshler, p. 77) can impede the effective use of an intervention. Providing the necessary resources that teachers can readily access is another necessary element of intervention planning.

Dose form and related dosage decisions. Dose form consideration in this context focuses on whether the monitoring and feedback during practice opportunities is provided by the teacher or a peer (Warren, Fey, & Yoder, 2007). Vaughn, Gersten, and Chard (2000) found in their literature review of reading interventions at the secondary level that peer feedback was the most promising intervention tool because it allowed students the opportunity to verbalize while receiving feedback and encouragement from

peers. They found increased task persistence when students had an active role in the learning process and when peer-mediated feedback was provided. Mastropieri et al. (2003) also found peer tutoring with comprehension strategy instruction, such as summarization, to be effective. Peer tutoring is contrasted, however, with teachers directly providing instruction. In the latter, teachers are readily available to provide information about unknown words or concepts, ensure that corrective feedback is being provided adequately, more quickly assess if there is an underlying skill deficit that must be addressed, and make judgments about the nature of the skill deficit (i.e., acquisition or proficiency).

Peer-mediated versus teacher-directed dose forms. One of the strongest findings in secondary reading research is the effect of teacher-directed explicit comprehension strategy instruction (Kamil et al., 2008). However, researchers who have reviewed the literature on effective reading interventions have also concluded that peer-mediated interventions are among the most promising approaches to improving reading fluency and comprehension. The question is whether it is possible to increase the teaching episodes per session (or “dose;” Warren, et al., 2007) by having peer work in lieu of one-on-one or small group teacher-directed instruction (Nez, 2003). In fact, some evidence indicates that in a peer-mediated intervention where one student has higher skills and the other has lower skills, both students demonstrate skill improvement (Houghton & Bain, 1993).

Maheady, Mallette, & Harper (2006) compared four different peer-tutoring models, including Peer Assisted Learning Strategies (PALS), Class-Wide Peer Tutoring (CWPT), START tutoring, and Class-wide Peer Tutoring Teams, and noted that evidence

supports the effectiveness of each approach in improving student outcomes. Of these approaches, Maheady noted that PALS “has clearly taken the lead with regard to using more strategic cognitive approaches (e.g., retelling, paragraph shrinking, and prediction relay) within a class-wide tutoring framework” (Maheady et al., p. 74). PALS was highlighted as one of the most extensively researched peer-tutoring models, now being “...ready to ‘scale up’ for more widespread application” (Maheady et al., p. 85).

During PALS, pairs of students work together to practice reading accurately. The basic activities in PALS are partner reading, retelling, summarizing, and prediction (Al Otaiba & Fuchs, 2002). Researchers have examined PALS in a variety of contexts and with a variety of students (Fuchs, Fuchs, & Burish, 2000; Fuchs, Fuchs, & Kazdan, 1999; Fuchs, Fuchs, Mathes, & Simmons, 1997; Maheady et al., 2006;), and it has been deemed a promising practice in the What Works Clearinghouse (United States Department of Education, 2009). Researchers have demonstrated the effectiveness of PALS for increased reading fluency, increased comprehension skill, and increased use of summarization as a comprehension strategy for middle school (Calhoon, 2005; Dufrene, et al., 2010; Sporer & Brunstein, 2009), as well as some evidence of effectiveness of PALS (Fuchs, et al., 1999) or other peer-mediated approaches (Harris, Marchand-Martella, Martella, 2000) at the high school level.

Whereas peer-mediated strategies such as PALS show promise at the high school level, PALS does have some limitations (Fuchs et al., 1999). The provision of a peer who can provide a fluent model of the text is sometimes difficult to implement at the high school level because fluent readers are not always available to participate in reading interventions (Fuchs et al., 1999). Also, peers may not be able to adjust instruction to

meet individual student needs as can be done in a teacher-directed intervention. When similar strategies are used by a teacher, the model is a fluent adult who can provide accurate error correction and can cue repair strategies readily. The teacher can also be more responsive to assisting students with previewing vocabulary, answering questions, providing clarification, and guiding use of comprehension strategies.

Frequency and intensity of measurement during intervention. To determine if an intervention and the defined dosage is achieving the intended outcomes, frequent measurement of those outcomes is needed. The more intense the intervention (i.e., greater levels of resource allocation), the more frequent measurement is needed to ascertain if the intervention is effective (Jimerson et al., 2007). More than 25 years of empirical data have supported the value of curriculum based measurement (CBM) as a means of frequently measuring academic progress. Specifically, CBM refers to established "...procedures that function as the 'vital signs' of student educational health..." (Deno, 1985, p. 230). Correct words read in a 1-min timing of a student reading aloud is the most common and most researched curriculum based measure for elementary students. Word identification provides valuable information for very young readers, and maze selection serves as a strong indicator of older students' reading ability (Espin, et al., 2009; Ticha, Espin, & Wayman, 2009; Wayman, Wallace, Wiley, Tichá, & Espin, 2007). Maze selection involves having a student read a passage with approximately every seventh word left blank. The student is provided with three word choices from which the student chooses the correct word to fill the blank. Scores derived from these measures have been documented to be highly correlated with other formative, as well as standardized, measures of reading comprehension and to have high alternate

form reliability (Deno, 1985; Deno & Mirkin., 1982; Shin, Deno, & Espin, 2000; Stecker, Fuchs & Fuchs, 2005; Wayman, et al., 2007). These measures were developed for monitoring the reading progress of students in special education.

Deno (1985) discussed the feasibility of CBM, not only in terms of the valuable information it provides, but also in terms of its ease of use. In addition to being reliable and valid, CBM procedures are simple and efficient, easily understood, and inexpensive to administer. Because CBM is sensitive to change in an individual student's performance, its usefulness in monitoring achievement before, during, and after intervention is clear. If progress is not documented with CBM data, it is possible that the chosen intervention did not address the needed skill at the appropriate level of instruction for the student. Researchers have provided some criteria for expected grade level reading rates (Hasbrouck & Tindal, 2006) and for growth rates in reading aloud and correct maze responses across grade levels (Deno, Fuchs, & Marston, 2001). These criteria have been used to make instructional decisions, and in some cases, special education eligibility decisions. The grade level growth rates decrease as students get older (e.g. 1.8 words per week in first grade compared to .66 words per week in sixth grade; (Deno, et al., 2001).

What We Still Need to Learn

Gaps in the knowledge base. More research is needed to determine how to conceptualize tiered instruction at the high school level to address the remarkable number of students who do not have adequate reading skills for most 21st-century jobs. We do not yet know under what circumstances teacher-directed or peer-mediated interventions can be expected to be most effective. It is not clear what dosage of either type of intervention is needed for high school students who need more practice to become

proficient in reading fluency and comprehension versus those who still need to acquire basic fluency and comprehension skills. It may be that some students' needs can be met by increasing practice opportunities, which can be addressed within an easy to implement, resource-efficient intervention (i.e., Tier II). However, at the high school level, more specialized and intensive interventions (i.e., Tier III) may be needed for students still acquiring the basic skills of reading. More research is needed to address these issues.

Contribution to the current knowledge base. This research is intended to provide evidence regarding the effectiveness of these particular instructional strategies in a teacher-directed context versus a peer-mediated context. This research is also intended to determine the effect of a Tier II intervention that included research-based approaches (specifically, listening passage preview, retelling, and main-idea questioning) to improving the fluency and comprehension of 10th-grade readers who have low proficiency with reading. It is hypothesized that these instructional strategies will significantly increase the reading fluency and comprehension of the participants relative to a non-equivalent control group in an adjacent school district.

In particular, the following research questions are addressed: (1) How do the effects of a standard protocol, peer-mediated intervention (conducted with 8-12 students) on reading fluency and comprehension of 10th graders compare with the effects of a standard protocol, teacher-directed intervention (conducted with 4-8 students) based on pre- and post-maze, pre- and post-ORF, and pre- and post-MAP scores? (2) How do these treatment groups compare to a non-equivalent control group that did not receive a targeted reading intervention? (3) How do the percentage of students who passed the

eighth-grade MCA compare to the percentage who passed the 10th grade MCA across treatment groups? (4) Are differences observed in the proportion of pre-maze scores that are above or below the median as compared to the proportion of post-maze scores that are above or below the median across treatment groups? (5) Are there any observable differences in the trends of the average weekly progress monitoring maze selection scores by treatment group for those receiving intervention?

Summary

As student needs are considered in the context of resource allocation decisions in schools, RTI provides a framework for instructional decision making. However, questions remain regarding the conceptualization of Tier II and III at the secondary level. The instructional needs of high school students who have not acquired basic reading fluency and comprehension skills may be different than what is needed by those who simply need more practice to increase their proficiency with these skills. There is a wealth of research evidence for reading interventions that are effective at the elementary level, but there is less research regarding the effectiveness of reading interventions at the high school level. However, there is adequate indication that LPP, retelling, and asking/answering questions for the purpose of summarizing are instructional strategies that could be effective at the high school level. It is also known that the dosage of such intervention may need to be relatively high and that there are some advantages when those interventions are provided by teachers and other benefits when they are peer-mediated.

This study is intended to contribute to the high school reading literature by providing evidence for whether teacher-directed or peer-mediated practice is more

effective for 10th-grade students with reading difficulties. The interventions in this study are focused in the areas of fluency and comprehension, with some aspects of motivation considered in the intervention design. Some opportunities for skill acquisition are embedded, but the focus of this study is increasing proficiency with fluent reading and comprehension for 10th-grade students.

CHAPTER III

METHODS

Participants and Setting

Schools. This study was conducted in two rural high schools in central Minnesota. One school served as the intervention site, and the other served as the non-equivalent control site. The intervention school enrolled approximately 1060 ninth-through 12th-grade students, with a 94% school attendance rate. At the time of the study, the school population was 95% White; 1% of the students were identified as limited English proficient, 12% had identified disabilities, and 29% were eligible for free or reduced lunch. Two hundred sixty-three students were in the sophomore class. Approximately 62% of sophomores in the class were proficient in reading based on their 2008 eighth-grade Minnesota Comprehensive Assessment (MCA) scores, compared to 66% statewide.

Data for the non-equivalent control group were obtained in a high school in an adjacent district. This district had similar demographics, although it was approximately half the size of the district where the interventions were completed. The high school included Grades 7 to 12, and enrolled approximately 850 students with a 95% school attendance rate. The school population was 95% white, 1% of the students were determined to be limited English proficient, 13% had identified disabilities, and 40% were eligible for free or reduced lunch. There were 106 students in the sophomore class. Approximately 57% of students in this class were proficient in reading based on their 2008 eighth-grade Minnesota Comprehensive Assessment (MCA) scores, compared to 66% statewide.

Growth rates in the two high schools were comparable. As shown in Table 1, growth rates take into consideration each student's proficiency status in the previous reading assessment (in this case, when they were in eighth grade). Then, each student's growth is calculated with a cut-off between low growth and medium growth defined as the average 10th-grade scaled score minus half the standard deviation. The cut-off between medium and high growth was the average 10th grade scaled score plus half the standard deviation (Minnesota Department of Education, 2010).

Table 1

Growth Categories of 10th Graders Relative to their Eighth-Grade Proficiency Status by District

2009 Growth Categories	Proficient (2007)		Not Proficient (2007)	
	Intervention	Control	Intervention	Control
Low Growth	20%	20%	7%	13%
Medium Growth	23%	23%	21%	16%
High Growth	13%	13%	16%	15%

Note: This table presents district-wide data to address district comparability. Medium growth cut off= half of SD less than average scaled score; High growth cut-off= half of SD more than average scaled score.

Intervention teachers. Intervention was provided during students' homeroom period; thus, two teachers were needed to provide the small-group teacher-directed intervention to the same number of students as the larger-group peer-mediated intervention within the homeroom time restrictions. Teacher A had over 10 years of experience as an educator, was licensed in elementary education, and had taught reading most of her career to upper elementary-aged students. She provided the instruction for a majority of intervention groups because of the flexibility of her position as an RTI coach, an assignment that included providing interventions to students.

Teacher B had over 15 years of teaching experience and had worked mostly with high school students. She was licensed as a special education teacher (in the areas of learning disabilities and mild to moderate mentally handicapped). She served as the lead teacher on the special education evaluation team and was able to adjust her schedule to instruct two of the intervention groups.

Teacher A provided the peer-mediated intervention to two groups of 16 students, for a total of $n = 32$. These groups met on Tuesdays and Thursdays. Teacher A and Teacher B each provided the teacher-directed alternative intervention to two groups of 8 students, again for a total of $n = 32$. Teacher A met with teacher-directed groups on Mondays and Wednesdays (opposite her peer-mediated groups), while Teacher B met with her groups on Tuesdays and Thursdays. Teacher A collected all maze selection data at this school, while both teachers participated in the collection of oral reading fluency data (both teachers collected data from students across intervention groups, not just from the groups they instructed).

Intervention students. Sixty-four students (approximately the bottom quartile in the grade level) identified as low-achieving readers were identified as potential intervention participants based on their district-administered winter maze selection and oral reading fluency scores, and their fall NWEA Measures of Academic Progress (MAP) (see Measures section for a complete description of measures). To be included in the study, students had to have a maze selection score of 20 correct maze selections or less on an eighth-grade probe that was administered to all 10th graders in the district except for those in the accelerated English courses. Students who scored 20 or less on the maze

selection were given the oral reading fluency measure and their MAP scores were collected.

Students were excluded from intervention participation if they were (a) currently receiving specialized reading instruction through special education services, (b) performed above the 50th percentile in the NWEA Measures of Academic Progress (MAP) because this data indicated conflicting information about the student's reading skill, (c) had an oral reading fluency score of greater than 200 (median after three 1 min readings) on 6th-grade passages, and/or (d) had a rate of absenteeism greater than 15% of school days this school year, all of which were determined by the school district. Lack of parental consent for use of student data for research was an additional exclusionary criterion for participation in the study. Parental consent was not provided for five students in the peer-mediated group and two students in the teacher-directed group. Subsequently, 57 students were eligible to participate in the study. Of these students, 30 were in the teacher-directed intervention and 27 were in the peer-mediated intervention. The sample size was limited by constraints imposed by the school, but it was determined that instructional need warranted carrying out the study despite low power (described in more detail below).

The participating school had decided to provide Tier II interventions prior to the beginning of the study, and agreed to assign the students randomly to intervention groups to increase the usefulness of the data for future resource allocation decisions. Students identified for the intervention were listed based on the time of their assigned homeroom time. The building schedule had two homeroom times: 10:30 am and 12:05 pm.

Students within each homeroom time slot were matched with another student in the same

homeroom time slot based first on their winter Maze selection scores (most within 1 correct word selection) and then on their oral reading fluency scores (most within 15 words read correctly in 1 min). Students within each pair were assigned randomly to the teacher-directed intervention or to the peer-mediated intervention.

An a priori power analysis for linear regression using two predictors (e.g. treatment group and pre-test score) indicated that a sample size of 40 participants is needed to provide adequate power to identify a large effect of one treatment compared to the other, a sample size of 107 participants to determine a moderate effect, and 776 participants for a small effect. Recruiting enough participants for the recommended sample size to identify a moderate or small effect was not feasible in this high school context. Even 107 participants would have included almost half of the 10th grade class, many of whom did not demonstrate reading difficulties. However, the study was implemented with the available sample size with the hypothesis that the effect of the intervention compared to no intervention could still be strong enough to demonstrate a significant effect and that any additional insight gained for providing Tier II interventions at the high school level would still be a valuable addition to this literature. Table 2 includes the demographic data for all participants.

Control students. Data were collected from a non-equivalent control group, consisting of 10th-graders in an adjacent district. These students were selected to match the students in the intervention groups based on their maze selection scores and NWEA Measures of Academic Progress, with similar exclusion criteria as those applied to the intervention group (i.e., that they were not accessing specialized reading instruction at the time of the study due to their eligibility for special education, did not have an eighth-grade level

maze selection winter benchmark score of greater than 20, and were not above the 50th percentile nationally on the NWEA Measures of Academic Progress). Oral reading fluency data were not available for these students. Thirty-one students were eligible and had parental consent to participate in the control group.

Table 2
Demographic Data by District and Treatment Group

	Intervention District			Control District
	Teacher Tx	Peer Tx	Total	Total
Males	20 (67%)	18 (67%)	38 (67%)	20 (56%)
IEP	3 (10%)	5 (19%)	8 (14%)	9 (25%)
Ethnicity				
White	28 (93%)	25 (93%)	53 (93%)	36 (100%)
Asian	2 (7%)	0	2 (3.5%)	0
Hispanic	0	2 (7%)	2 (3.5%)	0
Free/Reduced Lunch	6 (20%)	11 (41%)	17 (30%)	15 (42%)
Total <i>N</i>	30	27	57	36

Measures

Maze selection. The AIMSweb Progress Monitoring and RTI System (www.aimsweb.com) was the source for maze selection passages and administration protocol. Maze selection is a CBM procedure using a passage with approximately every seventh word left blank and three choices from which the student chooses the correct word to fill the blank. Students are given 3 min to complete as many of these items as they can. This procedure was used as the screening tool to identify students in need of intervention, as a post-test, and as the weekly progress monitoring tool. Publisher-provided instructions were used for all administrations, and a practice item was provided

at screening and posttesting. The screening and post-measures for maze selection were eighth grade benchmark passages; one passage was used to identify the participants, and a different passage was used for the posttest at the end of the intervention. Weekly progress monitoring probes were sixth-grade maze selection passages due to an expectation that these passages could more sensitively indicate student progress and reduce student frustration.

Researchers have demonstrated that maze selection yields scores with strong alternate-form reliability, with *rs* ranging from .75 to .90 for elementary students (see Wayman et al., 2007 for a review). Researchers have also shown that maze selection yields scores with moderate to strong criterion-related validity and predictive validity with the capacity to reflect change in reading growth over time for secondary students with great consistency. Correlations between oral reading fluency measures and maze selection were reported from .77 to .86 (Espin, Deno, Maruyama & Cohen, 1989; Fuchs & Fuchs, 1992), as well as a correlations from .58 to .88 between maze selection and standardized tests of reading comprehension (Espin, et al.; Jenkins & Jewell, 1993; Wiley & Deno, 2005). Because of the ease of administration at a group level and short duration, teachers have demonstrated a high level of acceptance for the maze selection procedure (Wayman, et al.).

Oral reading fluency. The AIMSweb Progress Monitoring and RTI System (www.aimsweb.com) was used to obtain pre- and posttest oral reading fluency scores of all participants of the 12-week intervention. These measures consist of passages with 350 words in narrative form at the eighth-grade level of text difficulty. The Fry readability formula was used in composing the passages in an effort to keep them at similar

difficulty level. The alternate form reliability for the eighth-grade benchmark passages ranged from .90 to .94 as reported in the technical manual (Howe & Shinn, 2002). The lexile scores for these passages, where “lexile” refers to a means of using word frequency and sentence length to indicate text difficulty, ranged from 1010 to 1070. The reported reliability coefficient for the eighth-grade benchmark passages was .92.

Standardized measures. Standardized assessments were included as distal outcome measures for the intervention in that they were not administered immediately preceding and immediately following the intervention, but served as generalized indicators of intervention effectiveness. The MCA consists of five to eight passages from a variety of genres including fiction, nonfiction, and poetry. These passages are followed by comprehension questions in a multiple-choice response format. These tests have been developed with the primary objective of measuring acquisition of knowledge outlined in the Minnesota grade level standards at each level.

The students’ performance on the eighth-grade Minnesota Comprehensive Assessment (MCA) for reading was collected from the districts, as well as their performance on the tenth-grade MCA for reading, which the students took approximately 8 weeks into the 12-week intervention. The MCA scores consist first of the number of the grade level, and then the score on the particular assessment. In considering the score portion only, anything less than a scaled score of 40 is classified as “does not meet” the standards, and from 40 to 49 is designated as “partially meets” the standards. “Passing” scores (in the “meets” or “exceeds” standards categories) are 50 or greater. The cut scores for these categories have been set using a complex process of item analysis to

order items by difficulty, using committees of professionals to place bookmarks between items that would be expected to separate students who score in each category, and then using those bookmarks to create cut scores. The mean scaled score for the eighth-grade assessment is 55 (SD=14) and for the 10th-grade assessment the mean is 57 (SD=13). Given that scores on this high stakes test are important measures of student learning, a comparison was made based on whether the participants passed the eighth-grade MCA and whether they passed the 10th-grade MCA.

In addition, the students' fall performance on the Northwest Educational Assessment (NWEA) Measures of Academic Progress (MAP) was compared with their spring scores approximately 10 weeks into the 12 week intervention. These data were used to compare student performance on pre- and post-standardized tests of reading skill. The MAP is a computer-adapted assessment, meaning that when students get an answer correct, they are given a more challenging item, but if they provide an incorrect answer, they are provided with an easier item. It is not a timed assessment, but it typically takes about an hour to administer, and it consists of multiple choice responses. The scoring scale is equal interval and can be used to measure growth across grade levels. Items address the skills of reading and applying directions, sequencing, locating information, analyzing cause and effect, determining purpose and bias, and identifying fact versus opinion. The marginal reliability coefficients of the 10th-grade reading portion of the MAP assessment were .94 in the fall and .95 in the spring, which takes into consideration the estimated measurement error across the achievement scale. The correlation of MAP scores with a variety of state assessments is available at specific grade levels. At the 10th-grade level, the validity between MAP and various state tests ranged from .76 to .79.

Fidelity measures. Fidelity of implementation data were collected during both interventions with both teachers to assess integrity of the defined procedures for each intervention and for each teacher. A PALS observation checklist used in previous PALS research (Fuchs et al., 2010) and a modified integrity checklist for the teacher-directed condition were used to document observations of instructional procedures during two sessions with each intervention group. These checklists were used to evaluate the accuracy (fidelity) of implementation of all PALS procedures by teachers and students.

The PALS checklist addresses general implementation activities, such as the preparedness of the teacher and the quality of monitoring and feedback provided to students. It also addresses specific aspects of the three PALS activities used in this intervention (Partner Reading, Retelling, and Paragraph Shrinking). Observers mark each item as “observed” if the teacher or student behavior was demonstrated, “not observed” if it was not demonstrated, or “not applicable.” The checklist specifies that different student pairs be observed at various points in the observation, with two different pairs being observed within each of the three activities.

A parallel checklist was developed for the teacher-directed intervention, emphasizing the same activities described above with the teacher serving as the model and the provider of corrective feedback. As with the PALS checklist, this checklist emphasized the teacher and student roles within each activity, as well as the timing of activity transitions. This checklist was less elaborate than the PALS checklist, but provided data regarding the fidelity of implementation of each step of the intervention.

Wehby Classroom Atmosphere Rating Scale (Wehby Scale). During intervention observations and in general education English classrooms in both sites, the

Wehby Scale was used to describe reading and language arts activity. The Wehby Scale includes questions about students' compliance with classroom rules; behavior during transitions; level of cooperation; and demonstrated level of motivation. The scale also addresses the instructional focus in the classrooms. Each item is rated on a 5-point scale (1=very high, 5=very low).

General education observation checklist. During general education classroom observations, another checklist was used to document the particular instructional formats used during 3-min intervals across 45 min sessions. This tool was used for one observation in each general education English classroom in the intervention school and in the control school. The purpose of this tool was to provide additional information regarding differences in general education instruction accessed by each student in each site. A broad array of reading instruction were included in the checklist (from direct instruction of specific components of reading to independent seatwork), as well as other activities that commonly occur during language arts instruction ranging from tasks that require passive to active student participation. The activities typically observed in English classrooms in both high schools (experimental group and non-equivalent control group) weighed heavily toward passive student participation and included high amounts of independent seatwork. There was a limited amount of oral reading practice observed during these class periods in both high schools.

Instructional Conditions

All instruction occurred during the students' 25-min homeroom class period and was scheduled for two days per week for 12 weeks when school was in session. Because the homeroom period was used for many purposes in this building (e.g., meetings with

college representatives, academic testing, standardized testing of students, distribution of yearbook and other materials, student surveys, etc.), some intervention sessions had to be cancelled. Some homeroom teachers were diligent in encouraging students to attend intervention sessions, while others were less diligent. Student attendance varied from zero sessions (although their data were included due to the intent to treat) to attending all 15 or 16 sessions. Three students in each treatment group never attended. The Tuesday-Thursday intervention groups met for 15 sessions over the 12-week period. The Monday-Wednesday intervention groups met for 16 sessions throughout the 12 week period.

Materials. The text for the intervention was a high interest, low readability level book called “Defect” by Will Weaver (2007) from the high school library, with text calculated to be at a lexile level of approximately 600. In an excerpt from the book, the mean sentence length was 8.47 words. The text was recommended by the high school principal because it was written by a Minnesota author and dealt with high school themes in an age-appropriate way.

Peer-mediated intervention. The peer-mediated condition included implementation of core elements of high school PALS (Fuchs et al. 1999). Students were trained to conduct each of the PALS activities as described below, to use a standard error correction script, and to provide positive feedback. Students were initially paired by pairing the students in the top-performing half of the class with students in the bottom-performing half of the class based on maze selection scores (e.g., top student from the top half of the students with top student from the bottom half, next student in the top group with the next student in the bottom group, and so on). Students were assigned new partners when the teacher sensed that a pair was not working well together.

During Partner Reading, the first reader read for 5 min, while the second reader served as the coach, reading along quietly and correcting any errors. Then the readers switched roles, and the second reader read the same text for 5 min, while the first reader read along silently and corrected errors. An error consisted of saying the wrong word, deleting a word, adding a word, or hesitating on a word. Coaches were trained to wait 4 seconds before providing correction. The standard error correction consisted of, “That word is _____. What word?” and asking the reader to read the sentence again. The readers took turns retelling for two min total. Integrity checks indicated that some pairs of students resisted re-reading the same text and resisted using standard error correction procedures during the intervention.

Paragraph shrinking involved having each reader read for five minutes again, this time with each reader continuing where the previous reader stopped. The following prompts were used to ask each reader to summarize each paragraph they read: (1) Name the who or what the paragraph is about, (2) Name the most important thing about the who or what, and (3) Say the main idea in 10 words or less. Again, students were taught a standard error correction procedure, and if the main idea was more than 10 words, the coach was taught to ask the reader to “Shrink it.” Throughout the intervention, students were encouraged to ask for assistance if they did not know how to read a word or did not understand the meaning of the word.

The teacher provided positive feedback for each student regarding the rate, accuracy or expression of reading, and accuracy of the summary statement. This positive feedback was provided verbally or on slips of paper that were part of the school-wide positive behavior support program in the building. The slips were used in a drawing at

the end of each week for students in the intervention to receive coupons from the school store. Then the coupons were put in the building-wide drawing for other tangible reinforcers.

Teacher-directed intervention. The smaller-group, teacher-directed condition included the same activities, but involved the teacher serving as the model and allowed flexibility for the teacher to address individual student needs. The same text was used as in the peer-mediated intervention. During Partner Reading, the teacher served as the reader for the first 4 min to provide a fluent model. Subsequently, the students were called on randomly to read or read chorally as directed by the teacher for 6 min, followed by the students taking turns retelling for up to 2 min. The group members then took turns reading a paragraph and summarizing that paragraph for a total of 10 min, with the teacher leading the process. The same three questions discussed in the PALS procedures above were used. The other students read along silently, being ready to read aloud at the correct place when selected. All standard error correction for misread or unknown words was provided by the teacher. The teacher addressed unknown words or words that the students did not appear to understand. Students were also selected randomly to answer the three summarization questions.

The teacher provided positive feedback for each student regarding the rate, accuracy or expression of reading, and accuracy of the summary statement. This feedback was provided verbally or on slips of paper that were part of the school-wide positive behavior support program in the building. As in the peer-mediated intervention, the slips were used in a drawing at the end of each week for students in the intervention

to receive coupons from the school store. Then the coupons were put in the building-wide drawing for other tangible reinforcers.

Control instruction. Students in the control group accessed their typical classroom instruction in English courses. This instruction was similar to that observed in the English classrooms in the intervention district. Activities observed included reading silently, students and teacher taking turns reading out loud, and teacher-led discussion. Sometimes students had access to printed materials to read along with the teacher- or peer-reader, but other times the students were only listening. This instruction focused on concepts provided in written material, but it did not emphasize the skill of reading. Standard error correction procedures were not observed when students misread words. In most cases, a third to a half of the class period was used for independent work time. This information was collected by breaking the observation into 3-minute intervals and putting a check in the column for any activity which occurred during those intervals.

Procedures

Screening and pre- and post-testing. The district collected maze selection data for all 10th-graders (except those enrolled in accelerated English courses) during February to be used as a screening measure to identify intervention participants as well as a pretest measure to establish group equivalence. Testing occurred during the 10th-grade English classes. If students were not enrolled in a 10th-grade English class during second trimester, students were asked to report to the media center during their homeroom time. Eighth-grade benchmarking maze selection passages were used for screening and pre- and post-testing, and students were given an oral reading fluency measure if they scored below 20 on the February maze selection. To complete the individual oral reading

fluency assessments, students were called out of their English classes or their homeroom classes and tested in quiet testing rooms in the media center. Oral reading fluency data were then collected for those students, and students were identified as intervention participants if they did not exceed the exclusionary criteria of greater than 200 words per min on the sixth-grade passages and if district records indicated that they were not above the 50th percentile in their fall MAP scores.

Spring maze selection and oral reading fluency assessments were given to students in May at the end of the last week of intervention as a means of benchmarking student progress. Again, maze selection assessments were completed in 10th-grade English classes or students were pulled from their home room classes. Oral reading fluency assessments were again conducted in a quiet setting during the student's English or homeroom period. In both February and May, the oral reading fluency data were collected by having the students read three passages at the 6th grade level and using the median correct words per min and the median errors per min as the student's score.

Assessment fidelity and inter-rater agreement. Maze selection data were collected by Teacher A, who was also the Local AIMSweb Manager (LAM) in the district. As a LAM, she was trained by the test publisher to collect and interpret the data. Integrity of implementation data were collected on 29% (9/31) of the class-wide maze selection administrations, with 100% of the required steps being implemented in the observed administrations. Inter-rater agreement for scoring of the maze selection assessments was calculated for 8% (37/447) of the assessments, with 99.2% agreement between the intervention teacher with LAM training and myself (the only two individuals involved in maze selection scoring). Maze selection administration in the

school district of the non-equivalent control group was done by the district reading specialist, who was trained by the LAM described above. The reading specialist was observed in 60% (6/10) of the class-wide administrations and was observed implementing 97.2% of the steps accurately. The maze selection measures collected for the non-equivalent control group were also scored by the LAM described above and by the researcher.

Oral reading fluency data were collected by the two intervention teachers (the LAM described above and the other intervention teacher who was trained by the LAM). Training included how to use scripted directions, when to start and stop the timer, how to identify an error, and how to score oral reading fluency measures. Integrity of implementation data were collected for 8.3% (15/192) of the individual student oral reading fluency administrations by each teacher. Teacher A (the LAM) implemented 100% of the required steps, and the second teacher implemented 99.5% of the required steps in the observed administrations of the oral reading fluency measures. Inter-rater reliability for the scoring of the 15 administrations observed was 99.8% for each teacher. The researcher was the second rater. Inter-rater reliability was calculated as agreements divided by agreements plus disagreements between the data collector and me.

Progress monitoring. Maze selection data were collected weekly from intervention participants as a progress monitoring measure. Maze selection progress monitoring data were collected using 6th-grade measures to reduce frustration that students might experience while still providing age appropriate content (Espinoza, Wallace et al. 2009). Students were asked to report to the intervention rooms on Fridays to participate in a 3-min maze selection assessment. Initially, if students missed the

assessment opportunity, they were asked to come out of class to take the assessment. After students were in the routine of attending on Fridays, students were not removed from class if they missed the assessment. Although this resulted in some missing data, it was a necessary accommodation to maintain the support of classroom teachers and administrators for the intervention.

Training of teachers. The teacher of the peer-mediated intervention had previously been trained in a half-day district staff development opportunity. These procedures were reviewed and the PALS (Grades 2-6) materials (Fuchs, Fuchs, Simmons, & Mathes, 2008) were modified to be appropriate for the high school population. These materials were used because they had been recently updated and were more explicit than materials developed for teachers of high school students. The intervention components were the same as those in the materials developed specifically for high school. Both teachers received training in the standard PALS procedures and the teacher-directed script during a half-day training meeting.

Training included an overview of the program, including a description of most important features of PALS and the benefits of the PALS activities. A brief description of past PALS research was provided. Teachers were then given a preview of the organization of the PALS manual. Next, they were reintroduced to the four PALS activities, emphasizing the first three activities implemented in this intervention. The modifications to these procedures for the teacher-directed intervention were then discussed, as well as the selected reading materials. Within one week following the workshop, teachers began implementing these activities with students.

Treatment fidelity. Each teacher was observed four times in the teacher-directed treatment, two times with each group of students. The teacher in the peer-mediated treatment was also observed four times, two times with each group of students. A second observer was included in one session with each intervention teacher. This observer was an Associate Professor of Special Education with experience with the interventions. The two of us observed together and compared our ratings. Inter-rater agreement was determined on a point-by-point basis, with the Associate Professor's ratings considered the "correct" answer. Inter-rater reliability for these observations resulted in 98.1% agreement for the PALS procedure and 95.4% agreement for the teacher-directed procedure.

Using the PALS implementation checklist, 93.6% of the required items were included in the intervention across two observations of the 10:30 session and 88.7% across two observations of the 12:05 session. The items that reflected student-directed activities were implemented with 89% accuracy across the two 10:30 sessions and 78% across the two 12:30 sessions. During the 12:05 observations, students complained about the PALS process and avoided asking each other the required questions. The teacher (Teacher A) frequently re-directed pairs and assisted them in re-engaging in the process. In Teacher A's teacher-directed sessions, 90.9% to 100% of the steps were included across four observations, with an average of 94.3% of items being implemented as designed. Teacher B's teacher-directed sessions included 72.7% to 90.9% of the items across four observations, with an average of 84.1% of items being implemented as designed. The most common omission in Teacher B's classroom was standard error correction, with the teacher simply providing the word when a student made an error.

In the Wehby Scale ratings, seven aspects of classroom environment were evaluated on a scale from one to six with one being the highest rating. Inter-rater reliability for these ratings were 100% in each intervention (counting ratings within one as agreements). The results of the Wehby Scale ranged from an average rating of 1.43 to 2.43 for the PALS sessions with Teacher A, 1.00 to 1.43 in Teacher A's teacher-directed sessions, and 1.57 to 1.86 in the Teacher B's teacher-directed sessions. Teacher B provided almost all of her positive feedback through written coupons, while the first teacher provided positive feedback through written coupons combined with behavior specific verbal feedback. In comparison, average ratings in the English classrooms in the district of the intervention (four teachers) ranged from 1.43 to 2.29, while the ratings in the district of the non-equivalent control group (two teachers) ranged from 1.57 to 2.00. Common activities observed in the general education classrooms were teacher-led discussion, teacher or students reading with or without all students reading along, and independent work time.

Design and Data Analysis

The design was a pretest/posttest randomized group design with two intervention groups in one district and a non-equivalent control group in an adjacent school district. Instruction was provided twice a week to all intervention participants, with four sections of the standard protocol, teacher-directed intervention and two sections of the standard protocol, peer-mediated intervention. All student data for designated participants were included even if students did not attend the intervention (using an intent-to-treat approach). Due to scheduling challenges, some sections met 15 times, while others met 16 times.

Means and standard deviations were examined for the intervention group, including the teacher-directed versus peer-mediated sub-groups, and the non-equivalent control group. Linear regression was used to determine if there were significant main effects for the pre-maze, for the treatment, and for the minutes in intervention on post-maze scores for the three groups (two intervention groups and one control group). With the two intervention groups, linear regression was also used to determine main effects of the pre-oral reading fluency scores, treatment, and minutes on the post-oral reading fluency scores, as well as and the pre-MAP scores, treatment, and minutes on the post-MAP scores. Weekly progress monitoring scores for each student and means for each week's scores were graphed and visually analyzed.

To provide some descriptive analyses of the data, MCA test scores were analyzed to determine if there was a change from percentage of the students who passed their eighth-grade MCA reading assessment versus the number who passed their 10th-grade reading assessment by treatment group. In addition, percentages were calculated for students with pre-maze scores below and above the pre-test maze median, as well as percentages of students with post-maze scores below and above the post-test median. Then, the patterns of student progress across intervention and control conditions were compared, focusing on which students started below or above the median compared to where they ended. The relationship between these patterns and minutes of intervention accessed was also examined, to determine whether student responsiveness was related to "dose" of intervention.

CHAPTER IV

RESULTS

Descriptive Statistics

Table 3 includes the means and standard deviations for maze selection, oral reading fluency measures, MAP and minutes in intervention. This table also includes effect sizes (Cohen's *d*) comparing the three groups on all pre- and posttest measures. Cohen's *d* was calculated as the difference between the means for two groups divided by the pooled standard deviation. Table 3 also includes the percentage of students passing the eighth-grade MCA (2 years ago) and the percentage of students passing the 10th-grade MCA when a majority of the intervention had been completed.

Table 3
Descriptive Data Across Treatment Groups

Measures	Teacher Directed (TD)	Peer Mediated (PM)	Control (C)	Cohen's <i>d</i>		
	(n =30) M (SD)	(n = 27) M (SD)	(n =36) M (SD)	TD vs. C	PM vs. C	TD vs. PM
Premaze	16.20 (2.68)	16.56 (2.52)	15.36 (3.61)	0.26	0.39	-0.14
Postmaze	26.83 (5.01)	28.81 (5.51)	22.97 (6.10)	0.69	1.00	-0.38
PreORF	153.77 (27.32)	157.30 (20.73)				-0.15
PostORF	165.40 (31.52)	168.07 (21.80)				-0.1
PreMAP*	217.28 (6.01)	209.04 (43.20)				0.27
PostMAP*	216.72 (11.04)	223.28 (9.23)				-0.64
Minutes	176 (104)	194 (100)				
%pass 8thMCA**	29%	30%	12%			
%pass 10thMCA**	50%	70%	42%			

Note: *Missing one preMAP score and two post MAP scores

**Missing data for 6, 7, and 10 students respectively across three conditions.

Maze Selection

Intervention group versus non-equivalent control group. This study was designed to determine the effect of two different reading interventions on reading performance as measured, primarily, by maze selection. The posttest maze selection scores for students from both interventions and from a non-equivalent control group were regressed first on their pretest scores, and then on pretest scores and treatment group (Table 4).

The model addressing pretest scores was statistically significant, as was the model that included pretest scores and treatment group. The change in R^2 between these models was also significant. Based on the first model R^2 , pretest score can be expected to account for approximately 15% of the variance in posttest score. In the second model R^2 , pretest and treatment group can be expected to account for approximately 27% of the variance in posttest score. Interpreting the unstandardized regression coefficient for pretest, the posttest score would be expected to increase by .76 points ($t=3.96$, $p<.001$) for every point above the mean in the pretest. When the treatment is considered, each point above the pretest mean would be expected to increase the posttest score by .64 points ($t=3.52$, $p=.001$). The teacher-directed treatment (dummy-coded with 1 indicating participation in that treatment) would be expected to increase the posttest score by 3.32 points ($t=2.53$, $p=.013$). Participation in the peer-mediated treatment (again dummy-coded with 1 indicating participation in that treatment) would be expected to increase the posttest score by 5.07 points ($t=3.73$, $p<.001$).

Considering the squared semi-partial correlations in the pretest and treatment model as an indication of effect size for each predictor, participation in the teacher directed intervention (treatment 1) accounts for approximately 5% of the variance and participation in the peer-mediated intervention accounts for approximately 11% of the variance. Figure 1 provides a visual representation of the pre- and post-maze scores by treatment group, where treatment 1 is teacher-directed, treatment 2 is peer-mediated, and treatment 3 is the control group. A post hoc power analysis indicated achieved power of only .62, indicating that the study was underpowered, but the effect between treatment and control was still significant.

Figure 1:

Boxplot of pre-maze and post-maze scores by treatment

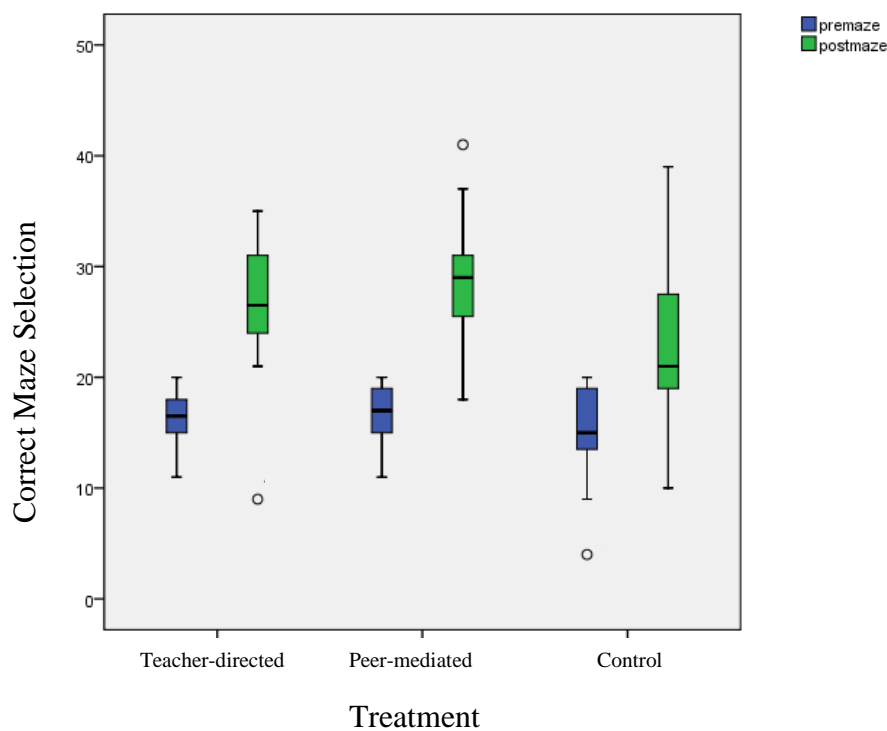


Table 4
 Summary of Linear Regression Analysis for Variables Predicting Post-measures (Maze, ORF, or MAP, respectively)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE(B)</i>	β
Constant	25.92	0.58		23.37	0.89							
Pre-maze Mean Difference	0.76	0.19	**0.38	0.64	0.18	**0.32						
Teacher Tx vs. Control				3.32	1.31	*0.26						
Peer Tx vs. Control				5.07	1.36	**0.38						
Minutes												
Treatment X Minutes												
R^2			0.15			0.27						
F for change in R^2			**15.64			**7.41						
	(Pre X Tx not significant)											
Constant	27.6	0.7		28.57	1.01		26.47	1.68		28.66	2.18	
Pre-maze Mean Difference	0.44	0.27	0.22	0.42	0.27	0.21	0.49	0.27	0.24	0.51	0.27	0.25
Teacher vs. Peer Tx				-1.83	1.38	-0.17	-1.62	1.37	-0.154	-5.48	2.83	-0.52
Minutes							0.01	0.01	0.2	0	0.01	-0.01
Treatment X Minutes										0.02	0.01	0.46
R^2			0.05			0.08			0.12			0.16
F for change in R^2			2.72			1.77			2.41			2.41
Constant	9.01	10.01		8.39	10.37		11.45	11		9.2	11.5	
Pre-ORF	1.01	0.06	**0.91	1.02	0.06	**0.91	1.01	0.07	**0.91	1.01	0.07	**0.9
Teacher vs. Peer Tx				0.91	3.1	0.02	0.67	3.12	0.01	4.75	6.58	0.09
Minutes							-0.01	0.02	-0.05	0	0.02	0
Treatment X Minutes										-0.02	0.03	-0.09
R^2			0.82			0.82			0.83			0.83
F for change in R^2			**253.92			0.09			0.73			0.5
Constant	224	10.6		224.5	10.11		223.5	10.23		222.8	10.19	
Pre-MAP	-0.02	0.05	-0.06	-0.01	0.05	-0.02	-0.01	0.05	-0.03	-0.03	0.05	-0.08
Teacher vs. Peer Tx				-7.07	2.89	*-0.33	-6.8	2.93	*-0.32	0.44	6.58	0.02
Minutes							0.01	0.02	0.11	0.03	0.02	0.31
Treatment X Minutes										-0.04	0.03	-0.41
R^2			0			0.11			0.12			0.15
F for change in R^2			0.19			*5.96			0.61			1.5
	(Pre X Tx significant)											

Note: N = 93 in first analysis, including control group; N=57 for other analyses of intervention participants only

* $p < .05$. ** $p < .01$.

Teacher-directed treatment versus peer-mediated treatment. When comparing the teacher-directed treatment (treatment 1) to the peer-mediated treatment (treatment 2), the first model included pretest scores only; the second included pretest and treatment group; the third included pretest, treatment, and minutes in intervention; and the fourth included pretest, treatment, minutes and the interaction between treatment and minutes (Table 4). None of the coefficients for variables in these models or the models themselves significantly predicted the post-maze scores, and the subsequent changes in R^2 across these models were not statistically significant. Based on a power analysis, this sample size was likely too small to demonstrate a significant difference between the two treatments.

Teacher effects. Because there were two instructors in the teacher-directed treatment, a linear regression model was conducted to determine if there was a significant teacher effect after controlling for pretest scores. The model addressing the pretest scores and teacher was not statistically significant, $F(2,27)=1.26, p=.301, R^2=.085$. The change in R^2 between the pre-test only model and the model accounting for pre-test scores and teacher effect was also not significant (R^2 change=.006, F change=.163, $p=.689$).

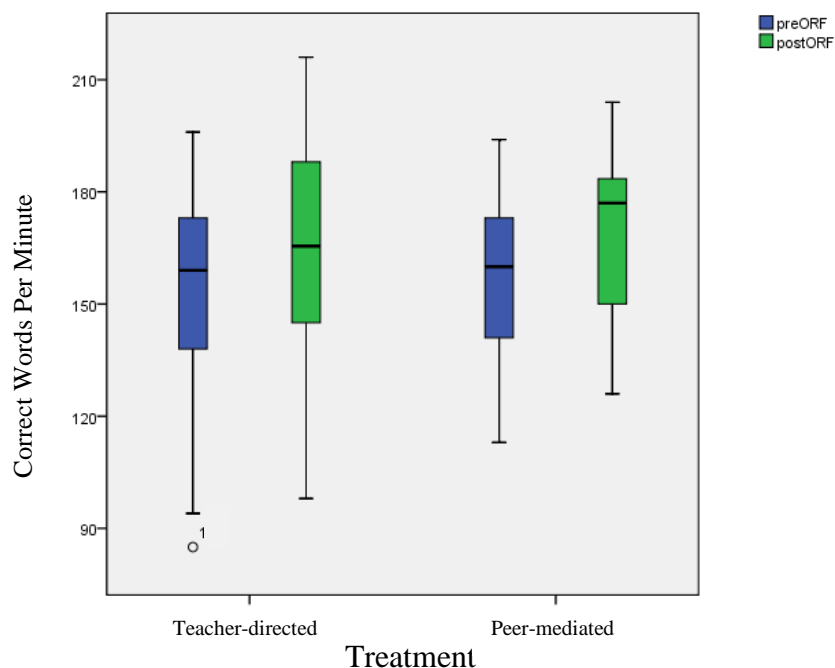
Oral Reading Fluency

The post-ORF scores for students participating in the interventions were regressed on their pre-ORF scores as the first model; the second model included pretest and treatment group; the third included pretest, treatment, and minutes in intervention; and the fourth included pretest, treatment, minutes, and the interaction between treatment and minutes (Table 4). Oral reading fluency data were not available for the non-equivalent control group. The model addressing the pretest scores was significant, resulting in a

significant change to the model. This model indicates that 82% of the variance in the post-ORF scores was predicted by the pre-ORF score. The second, third, and fourth models were also statistically significant, but the change in R^2 between each of these models was not significant, indicating that being in treatment 1 versus treatment 2, considering minutes in intervention, and considering treatment-minutes interaction did not significantly add predictive value to the model. The pre-ORF score was the only variable with statistically significant coefficients, and it was significant in every model. As indicated above, the sample size may not have provided enough power to indicate an effect of one treatment over the other. Figure 2 provides a graphic representation of the pre- and post-ORF scores by treatment group.

Figure 2:

Boxplot of pre-ORF and post-ORF scores by treatment



Standardized Measures

MAP. The post-MAP scores for students participating in the interventions were regressed on their pre-MAP scores in the first model; pre-MAP and treatment group in the second model; pre-MAP, treatment, and minutes in the third model; and finally, pre-MAP, treatment group, minutes, and interaction between treatment and minutes (Table 4). Pre- and post-MAP data were not available for the non-equivalent control group. The model addressing the pre-MAP scores alone was not significant, and neither was the change to the model.

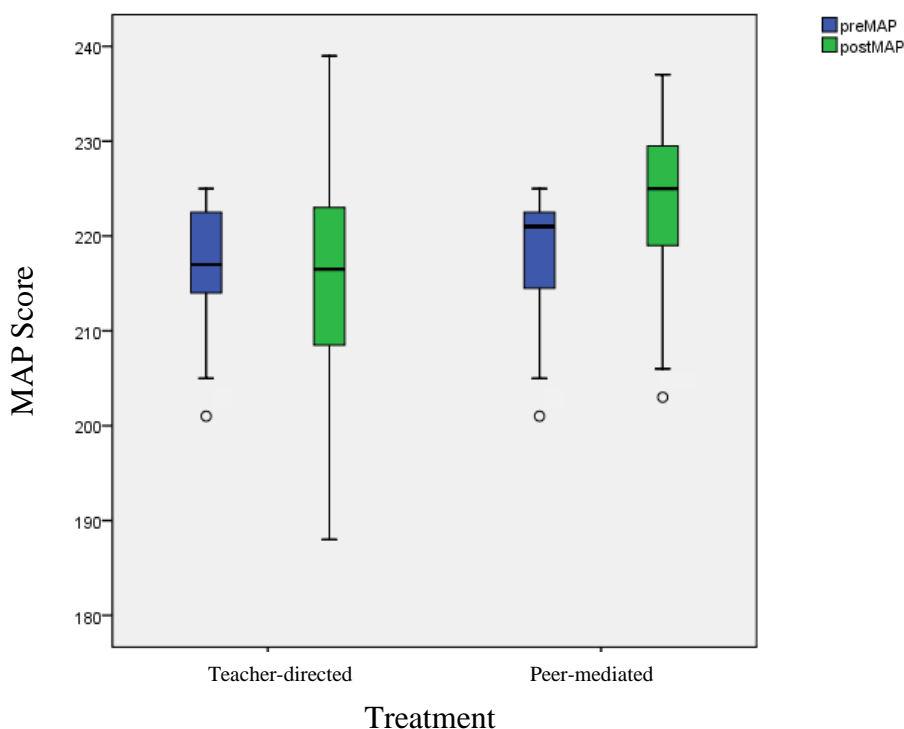
The model addressing pre-MAP and treatment was statistically significant for treatment, and the change in R^2 between these models was also significant. This indicated that, in terms of predicting post-MAP scores, the pre-MAP scores and treatment group were significantly better in predicting post-MAP scores than the pre-MAP scores alone. Because the change in R^2 between these models was significant, it was necessary to incorporate an interaction term into the model (pre-MAP X treatment group). The model with the interaction was statistically significant, $F(3, 48) = 5.01, p = .004, R^2 = .238$. The change in R^2 between the pre-MAP/ treatment model vs the pre-MAP/treatment/interaction model was also statistically significant (R^2 change = .127, F change = 7.976, $p = .007$). The interaction variable was significant ($t = 2.82, p = .007$); therefore, the significant regression coefficient for treatment group could not be interpreted as a main effect. To further explore this interaction, the predictive value of pre-MAP scores was analyzed for each treatment group individually. The pre-MAP scores significantly predicted post-MAP scores for the teacher-directed group ($F(1, 26) =$

7.613, $p=.010$, $R^2 = .226$), but pre-MAP scores did not significantly predict post-MAP scores for the peer-mediated group ($F(1,22) = .287$, $p=.597$, $R^2 = .013$).

In the third model, treatment was the only significant predictor (not pre-MAP scores or minutes in intervention), but the change in R^2 was not significant. The variables in the fourth model did not significantly predict the post-MAP scores, and the subsequent change in R^2 was also not significant. The pre-MAP data were collected 6 months before the intervention, and the post-MAP data were collected 3 weeks prior to the end of the intervention. Figure 3 provides a graphic representation of the pre- and post-MAP data by treatment group.

Figure 3:

Boxplot of pre-MAP and post-MAP scores by treatment

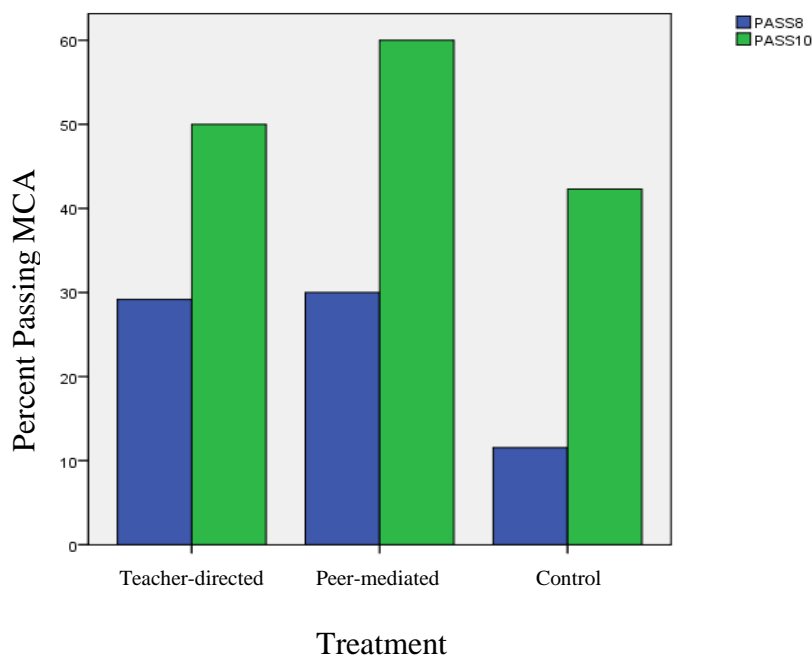


MCA. The MCA scores from the students' eighth-grade year were analyzed, as well as the current year MCA scores which were collected about 4 weeks prior to the

intervention completion. Table 3 shows the percentages of participating students who passed each assessment (“meets” or “exceeds” the grade-level standard). The percentages of students who passed the 10th-grade test were higher than the eighth-grade tests for all groups, with the highest percentages of passing students being in the peer-mediated intervention and the teacher-directed intervention, respectively. These data were not available for students who did not take the assessments in the districts participating in the study. Figure 4 provides a graphic representation of the percentage of participants who passed the eighth-grade MCA two years ago and who passed the 10th-grade MCA near the completion of the intervention.

Figure 4:

Bar graph of percentage of students passing MCA by treatment

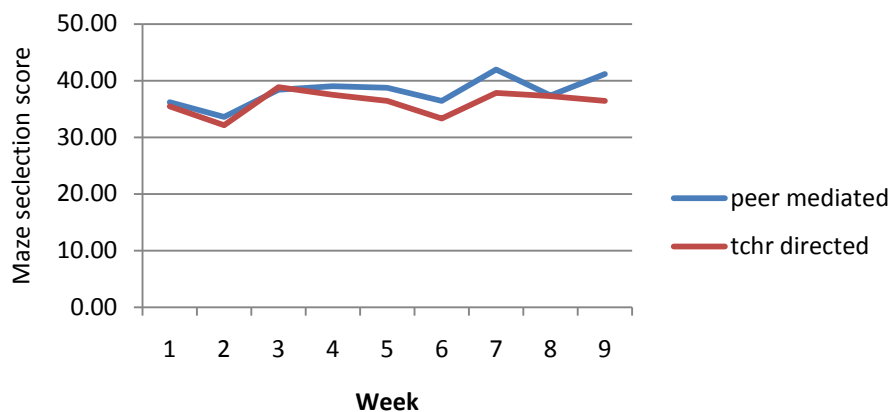


Longitudinal Measures

Weekly maze selection data were collected to monitor the pattern of student progress throughout the intervention and to serve as ongoing feedback to students. It is difficult to interpret the weekly maze selection scores because it was not feasible to have every student participate every week. These scores also cannot be compared to the pre- and post-maze because those measures used eighth-grade level passages, while the progress monitoring scores used sixth-grade level passages. Generally, the weekly mean for the peer-mediated group was similar to the weekly mean for the teacher directed group during the early weeks of intervention. However, the line graph of the weekly means for the peer-mediated group was above the weekly means of the teacher directed group in later weeks of intervention (Figure 5). Using a two-tailed t-test for equality of means in independent samples, the peer-mediated means for the ninth (last) longitudinal measure was significantly higher than the teacher-directed means, $t(26)=2.24$, $p=.034$. Logistically, it was not possible to assess every participant every week, so these measures include 16 peer-mediated and 12 teacher-directed participants.

Figure 5:

Line graph of weekly means for maze selection by treatment group.



Exploration of Response Patterns

The last research question addressed differences in the proportion of pre-maze scores that were above or below the median as compared to the proportion of post-maze scores that were above or below the median across treatment groups. Low and high scores were defined by the median of the pre-maze and the post-maze, respectively (Table 5). The non-equivalent control group had the highest percentage of low pre-maze scores. However, an even higher percentage of that group also had low post-maze scores. Only 21% (4/19) of the students in the control group who started in the low group ended in the high group, while 53% (9/17) of those who started in the high group ended in the low group. In the teacher-directed treatment group, the same percentage of students who scored below the pre-maze median scored below the post-maze median. In this group, half of the students (6/12) who started in the low group ended in the high group, and only a third (6/18) who started in the high group ended in the low group. In the peer-mediated treatment group, the percentage of students in the low score group decreased and the percentage in the high score group increased. In the peer-mediated group, 77% (7/9) who started low ended high, and only 28% (5/18) who started in the high group ended in the low group.

Table 5
Percentage (number) of Pre-maze and Post-maze Scores Below and Above Median

Treatment Group	<i>n</i>	Pre-Maze Scores		Post-Maze Scores	
		Below Median	Above Median	Below Median	Above Median
Teacher- Directed	30	40%(12)	60%(18)	40%(12)	60%(18)
Peer- Mediated	27	33%(9)	67%(18)	26%(7)	74%(20)
Control	36	53%(19)	47%(17)	67%(24)	33%(12)

A chi-square test for independence was used to analyze the relationship of each treatment (3 rows in the contingency table) to the number of high versus low pre-maze scores (2 columns in the contingency table). The results were not significant for pre-maze percentages ($X^2=3.39$, $df=2$, $p=.184$), indicating that the pattern of high versus low pre-maze scores were statistically independent. When the chi-square test was done using the high versus low post-maze scores for each treatment group, the resulting statistic was significant ($X^2=11.00$, $df=2$, $p=.004$), indicating that there was a significant relationship between the treatment group and the pattern of low or high scores.

The response of students was considered relative to their attendance during the intervention. In the teacher-directed group, 69% (9/13) of students with post-maze scores below the median also had low minutes (below the median number of minutes attended). Similarly, 65% (11/17) of the students with high post scores also had high minutes in intervention. However, in the peer-mediated group, only 29% (2/7) of the students with low post-maze scores had low minutes of attendance, while about half (11/20) of the high post scores had high minutes. Therefore, the minutes attended did not seem to align as closely with a high or low posttest score in the peer-mediated treatment as they did in the scores of the teacher-directed group.

CHAPTER V

DISCUSSION

This study employed a pretest/posttest randomized group design with two intervention groups in one school district and a non-equivalent control group in an adjacent district. Students in the two intervention groups received instruction twice a week for approximately 25 min per session for 15-16 sessions. There were four sections of the standard protocol, teacher-directed intervention with up to 8 students in each section. There were two sections of the standard protocol, peer-mediated intervention with up to 16 students in each section. The following is a discussion of the results in the context of the five research questions, followed by implications for research and practice.

Effects of Peer-Mediated versus Teacher-Directed Intervention

The first research question addressed how the effects of a standard protocol, peer-mediated intervention compared with the effects of a standard protocol, teacher-directed intervention on 10th-graders pre- and posttest maze, ORF, and MAP scores. Whereas there were no statistically significant main effects of intervention on students' posttest maze or ORF performance, there was a moderate effect (Cohen's $d = .38$) favoring the peer-mediated intervention over the teacher-directed intervention on post-maze scores. This effect is worth noting given that the study was somewhat underpowered for finding significant treatment differences. The minimal growth in ORF with secondary students is consistent with previous research findings reviewed by Wayman et al. (2009) indicating that ORF is not as sensitive to growth with secondary students as it is in elementary and that the slope of these scores decrease as students age increases. Further, a moderate to large, effect (Cohen's $d = .64$) was observed in the MAP scores in favor of the peer-

mediated group, but the significance of this finding could not be interpreted as a main effect due to a significant effect of the interaction between the pre-MAP and treatment predictor variables. These results provide an indication that further exploration of the effects of peer-mediated intervention with high school students is warranted.

Effects of Treatment versus Control

The second question addressed how reading outcomes for the treatment groups compared to reading outcomes for a non-equivalent control group that did not receive a targeted reading intervention. A statistically significant, large effect (Cohen's $d = 0.69$) was found for the teacher-directed intervention compared to this non-equivalent control group, and a statistically significant, very large effect (Cohen's $d = 1.00$) was found for the peer-mediated intervention as compared to the control group. These results are likely attributable, at least in part, to the fact that the intervention students had more practice reading than the control group, given that the control instruction included more listening to reading and teacher-led discussion than student reading. In fact, all observed classroom instruction in both high schools included primarily passive participation and independent seat work, activities that were different in nature than the high practice interventions used in the treatment groups. The large effects for peer-mediated intervention support the use of this more resource-efficient option for practicing reading at the high school level. Students in the interventions expressed a level of investment in improving their reading skill. While 68% of the students expressed an expectation that they would pass the state exams, 82% indicated that working on reading skills twice a week would be a good way to prepare for the test.

Descriptive Analysis of Intervention Effects

The remaining questions were included to further explore possible intervention effects. One question addressed how the percentage of students who passed the eighth - grade MCA compared to the percentage who passed the 10th grade MCA across treatment groups. All three groups had higher passing rates in 10th grade than in eighth grade. The highest percentage of students passing the 10th grade assessment were in the peer-mediated treatment group (with approximately 60% passing), followed by the teacher-directed treatment group (approximately 50% passing). These results were encouraging given that only about 30% of these students (in both intervention groups) had passed the MCA in 8th grade.

In terms of differences in the proportion of students whose pre-maze scores were above or below the median as compared to the proportion of students whose post-maze scores were above or below the median, again, the most noteworthy results were for the peer-mediated group. In this group, a majority of the students who started low ended high (77%), and a small percentage of the students who started high ended low (28%). Similarly, in the teacher-directed group, more students who started low ended high (50%), and fewer students who started high ended low (33%). In contrast, more than half of the students (53%) in the non-equivalent control group who started high ended low. These patterns suggest that the interventions, and particularly the peer-mediated intervention, altered the relative placement of students in terms of performance on maze selection. Further exploration of the characteristics and needs of students who ended below the median would facilitate better intervention design to address their gaps in skill development.

The trends of the average weekly progress monitoring maze selection scores by treatment group for those receiving intervention were difficult to interpret due to large amounts of missing data. The observed trends in the longitudinal data were that the peer-mediated weekly means initially paralleled and then typically exceeded the teacher-directed means. These data were of limited value for interpreting the outcomes of this study. However, the trends do encourage further research to determine if there are significant differences in weekly progress monitoring scores when comparing peer-mediated and teacher-directed interventions with a more complete data set over a longer time period.

Contributions to the Literature

New knowledge. Despite the limited significant results from comparisons of the teacher-directed versus peer-mediated interventions, converging findings from each research question provide some support for both approaches, with the peer-mediated intervention showing particular promise. This study provided evidence that high school students can benefit from explicit practice opportunities, despite documented concern that remediation effects are more difficult to attain with students after third grade (Al Otaiba & Fuchs, 2002). More specifically, this study provides documentation that 10th graders can respond favorably to interventions that include LPP, retelling, and main idea questioning along with standard error correction and positive feedback.

Findings also suggest that favorable intervention results can be achieved through relatively low-resource interventions, particularly when peer-mediated instruction is used. The effect sizes and the results based on the standardized measures (MAP and MCA) support further exploration of these interventions with high school students. Based on

these results, researchers could begin with the hypothesis that the peer-mediated form of these strategies is more effective than the teacher-directed form, therefore permitting a one-tailed significance test. These results may also be used to elicit buy-in from high school staff, prompting them to view reading intervention at the high school level as a valuable endeavor worthy of their attention and support.

Relationship to previous literature. Previous research has lent support for PALS in a variety of contexts (Fuchs, Fuchs & Burish, 2000; Fuchs, Fuchs, Mathes, & Simmons, 1997; Maheady, et al., 2006), including at the high school level (Fuchs, Fuchs, & Kazdan, 1999). The results of this study further support the value of studying PALS in a secondary context. The effectiveness of PALS is complemented by the feasibility of implementing it in relatively large groups because practice opportunities remain high in the peer context. From a dosing perspective, peer-mediated instruction appeared to be at least as effective as the teacher-directed intervention across multiple measures. It is important to consider that the students in the peer-mediated group practiced reading aloud approximately half of the treatment time (even in larger groups), while teacher-directed students only practiced reading aloud 15-20% of the time (depending on group size). Therefore, the peer-mediated intervention allowed for more practice opportunities while being less resource intensive than the teacher-directed intervention.

In the broader context of interventions for fluency and comprehension, this study supports the notion that particular interventions that have previously been found to be effective in an elementary context can also be effective for high school students. Specifically, these results lend additional support for the value of LPP (Wexler, Vaughn, Edmonds, & Reutebuch, 2008), retelling and summarizing (Mastropieri, Scruggs, &

Graetz, 2003; Roberts et al., 2008), and providing explicit positive and corrective feedback (Carnine, Silbert, Kame'enui, & Tarver, 2004; McCurdy, Daly, Gortmaker, Bonfiglio & Persampieri, 2007; O'Shea, Munson & O'Shea, 1984). Although it is not possible to determine the unique contribution of each of these components in this particular study, these interventions in combination were effective in both the teacher-directed and peer-mediated forms with high school students. These results were also consistent with previous research that has indicated better outcomes on comprehension skills than on reading fluency for secondary students (Scammacca et al., 2007; Torgeson, et al, 2007). The interventions were standard protocol, scripted interventions which were implemented in a high school setting with high fidelity and with minimal training requirements.

Whereas findings of this study may have little direct contribution to the IH research (Ardoin & Daly, 2007; Haring, Lovitt, Eaton & Hanson, 1978), IH research may support the interpretation of these results. In particular, the concepts of acquisition and proficiency provide a framework for creating hypotheses that can be tested in future research regarding the characteristics of the learners who did and did not demonstrate progress with these intervention components. Intervention components in this study emphasized practicing reading fluency and comprehension skills students were assumed to have previously acquired. One might hypothesize that the students who did not demonstrate progress in this study may not have adequately acquired reading fluency and comprehension skills. They may have needed more intensive modeling and feedback to become more accurate in their reading and in understanding what they read. If they had not previously learned to crack the code of written language, it would be expected that

practicing these skills, which they do not yet possess, would be of limited value. In addition, if data were available to accurately assess the level of each student's motivation for improving their reading skill, it may have been that some of the students needed more explicit encouragement or support for seeing themselves as capable of becoming more effective readers or for seeing reading as valuable to them personally.

Finally, with respect to conceptualizing RTI at the secondary level, the findings of this study suggest that standard protocol, Tier II interventions might appropriately meet the needs of some students. This finding contrasts somewhat with the findings of Vaughn et al. (2010), who concluded that these kinds of interventions may not be sufficient for remediating the skills of secondary students. The students who did not respond to the interventions in this study may need more explicit instruction including high degrees of modeling and feedback to be successful. This hypothesis may support the discussion of Vaughn et al. and Fuchs et al. (2010) that placement in more individualized Tier III interventions without first attempting Tier II interventions is warranted with some secondary students. However, the observed effects for many participants in this study supports the value of placing students directly in the less resource intensive Tier II interventions when they can adequately benefit from skill practice.

Limitations. Interpretation of the results of this study must include an acknowledgement that the control group was not a randomly assigned, equivalent group of participants. In addition, the intervention participants may have received more time in reading instruction than the control group. There were some limitations of the interventions themselves. The limited dosage of 20 minutes up to twice a week may have

limited the outcomes that could be achieved. Also, the peer-mediated participants did not rotate partners on a regular basis, with partners varying primarily due to absences. Larger samples of students would increase the power of this study. The difficulty in collecting the weekly progress monitoring data was another limitation to the exploration of the pattern of progress demonstrated during intervention.

Implications

Improving practice. Results of this study suggest that there is a place in a secondary RTI system for standard protocol, Tier II interventions. In this study, standard protocol interventions, typically applied in a Tier II context, demonstrated promise for impacting the reading skills of 10th grade students. Students who need practice to increase their proficiency with reading fluency and comprehension may be the “high responders” to standard-protocol, Tier II interventions. These Tier II interventions might be expected to be more impactful if they are peer mediated and provide a high level of practice opportunities. Peer-mediated interventions may initially require more staff investment to support students during the training period and, subsequently, to create an environment where students take responsibility to support each other in the reading process. In teacher-directed interventions, teachers are able to directly impact on-task behavior, vocabulary challenges, and reading errors as they occur. These characteristics may be necessary instructional components for students who need more intensive modeling and instruction to acquire basic fluency and comprehension skills.

Future research. A larger sample size or a greater number of intervention sessions would contribute to the empirical evidence to determine if significant differences exist between the teacher-directed and peer-mediated interventions. A future study may

begin with the hypothesis that a standard protocol, peer-mediated intervention like the one described in this study is more effective than the similar teacher-directed intervention for students that need to increase their proficiency in reading fluency and comprehension. As such, the participants could be chosen to represent this particular skill need and a one-tailed significance test could be employed.

It may be that the distinction between gaps in acquisition versus gaps in proficiency of reading skill (as described in the IH) is an essential discussion for making intervention decisions at the secondary level. Distinguishing between tiers of intervention at the secondary level may not be a hierarchical configuration as much as a branched configuration. In the latter, students who are struggling with reading may be assigned to either a proficiency or acquisition intervention. In this case, although the acquisition intervention would likely need to be more individualized and more resource intensive, the proficiency intervention would be accessed only if the student had previously acquired the necessary skills (i.e., reading accurately and comprehending basic questions and concepts from text). Future research questions might address the effectiveness of existing fluency and comprehension measures for identifying students at the acquisition or proficiency stage of learning these skills, as well as determining the effectiveness of the proficiency interventions used in this study for students identified as being specifically in the proficiency stage of learning.

Additional research is needed to determine if those who do not respond to these standard protocol interventions respond to more intensive, acquisition-focused interventions. In particular, it will be critical that continued research support operational definitions and decision-making rules for an RTI paradigm that is designed to meet the

unique needs of secondary learners who continue to struggle with developing adequate reading skills. It may be that, in the context of the Vaughn study of Tier II interventions in a secondary environment (Vaughn, et al., 2010), the limited effects were not due only to having strong interventions for the control group. Limited effects may also have been due to lack of separating the participants who had or had not acquired the fundamental skill of reading fluently and comprehending. In this interpretation, Tier II would not be a pre-requisite to Tier III (e.g., more intensive interventions focused on reading skill acquisition). Instead, Tier III, when needed, would be a pre-requisite to Tier II (i.e., address acquisition needs before practice). Therefore, students with a history of learning difficulties involving reading would be assigned to either acquisition-focused (Tier III) or proficiency-focused (Tier II) interventions. Explicitly addressing the difference in intervention response of students who are acquiring versus developing proficiency with reading fluency and comprehension is a critical next step. Exploration of the intervention response of students who have been diagnostically separated into these two groups warrants further investigation and will support intervention design and instructional reform in American high schools.

The ultimate message in the research and in this study is that there is an undeniable need for instructional reform at the high school level (Balfanz, et al., 2004). Students cannot just be given more time with the same instruction. The response of high school students to peer-mediated instruction cannot be ignored in the instructional design of these targeted interventions. Failure to address these educational needs has high stakes for individuals and for the American society, so we must continue to learn more and must implement what we know on behalf of secondary learners.

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Appendix

PALS Integrity Check

Teacher-directed Integrity Check

Wehby-Classroom Atmosphere Measure

General Education Classroom Observation

Reading PALS Implementation Checklist Fidelity Time 1

Teacher: _____ School: _____ Observer: _____

Timeslot and Date: _____ # of Students present: _____ Appr. Session #: _____

For each item, please mark a checkmark in the appropriate column. A "+" is awarded if the behavior is observed about 80% of the time. For items that refer to the entire class, please award a "+" only if 80% (e.g., in a class of 20 students, 8 out of 10 pairs) has exhibited the behavior.

For some items, "NA" may be marked to indicate that the item did not occur (e.g., review, correction.)

Time Started: _____ Time Ended: _____ Total Time for PALS: _____

GENERAL — Teacher Implementation				
	+	—	NA	Organization and Set-Up
1				Teacher announces, "It's time for PALS" or there is some other obvious transition that indicates that the PALS session has begun.
2				Teacher distributes PALS materials, students pick up materials from the teacher, if necessary (books, question cards and new score cards), or students already have materials. This must take less than 2 minutes from the time of the first command in order to receive a "+". Time of first command: _____ Time completed: _____
3				Students move, if necessary, within 2 minutes of the first command to move to their PALS places. Students must complete the move in less than 2 minutes from the time of the first command in order to receive a "+". Time of first command: _____ Time completed: _____
4				Students have been assigned PALS seats, either at desks or on the floor.
5				Students are arranged so that students can easily follow along as their partner reads and teachers can easily navigate from pair to pair.
6				If today is the last PALS session of the week, the teacher tallies up team points.
7				Teacher tells students to put away PALS materials at the end of the lesson, or students are observed putting away the PALS materials. Time of first command: _____ Time completed: _____
	+	—	NA	Monitoring and Motivation
1				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately during set-up time . Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
2				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately at the end of the lesson . Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
Reading Assignments:				
Comments:				

PARTNER READING — Teacher Implementation				
	+	—	NA	General Teacher Implementation: Partner Reading
1				Teacher reviews Partner Reading procedures, as needed. Students are attentive and remain on-task during the review. Teacher only receives a "-" if the teacher reviews procedures but students are inattentive and/or off-task. They receive a "NA" if there was no review.
2				Students' reading assignments are clear: Students have books in their folders, assignments are written on board, or teacher verbally informs students of that day's reading materials.
3				Teacher implements Partner Reading for 5 minutes for First Reader.
4				Teacher's transition between switching partners is brief (30 seconds or less). However, brief reviews are allowable and desirable, as long as most students are attentive and remain on-task during the review (this would still earn a "+").
5				Teacher implements Partner Reading for 5 minutes for Second Reader.
	+	—	NA	Monitoring and Motivation: Partner Reading
1				Teacher circulates among pairs and does not sit with the same pair during the entirety of Partner Reading.
2				Teacher listens to at least 2 pairs during Partner Reading.
3				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately during Partner Reading. Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
4				Teacher verbally praises or gives bonus PALS Points to the whole group or pairs for exhibiting desired PALS behaviors. Teacher receives a "-" if she/he awards points to pairs behaving inappropriately. "NA" if you did not observe either behavior.
5				Teacher provides specific positive feedback and/or specific corrective feedback to students. Teacher receives a "-" if she/he awards points to pairs behaving inappropriately. "NA" if you did not observe either behavior.
PARTNER READING — Student Implementation				
	+	—	NA	General
1				Students set up materials correctly. They get out the book(s) they are sharing, a point sheet and a pencil.
2				Students know what they are supposed to read (i.e., teacher tells them, they start from where they left off the day before, they read the assignment from the board, etc.)
3				Most First Readers begin Partner Reading within 30 seconds of teacher's first command to begin.
4				Most First Readers are on-task for the entirety of the 5 minutes allotted.
5				Most Second Readers begin Partner Reading within 30 seconds of teacher's first command to begin.
6				Most Second Readers are on-task for the entirety of the 5 minutes allotted.
7				Most students work cooperatively together during Partner Reading. Arguing/complaining is minimal.
Comments:				
If teacher has not trained students in Partner Reading, please note what he/she is doing in substitution or reason for delay.				

PARTNER READING — Student Implementation			
START TIME:	1ST READER:	2ND READER:	
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:			
	+	—	NA
PAIR ONE: First Reader Reads - Observe for first 2.5 minutes out of 5 minutes.			
1			First Reader is the Reader first. Second Reader is the Coach first.
2			The pair is reading from the same book (i.e., the pair is not reading from two copies of the same book.)
3			The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.
4			Reader begins reading within 30 seconds of the teacher's first command to begin.
5			Reader reads clearly and at appropriate volume.
6			Coach listens as the Reader reads.
7			Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
8			Coach marks 1 point after each sentence the Reader reads correctly. Pair receives "-" if they are marking points inappropriately: A) not marking points at all, B) cheating, C) marking points incorrectly or inconsistently (e.g., marking too many points, marking after every paragraph).
9			Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
10			Reader asks for help, if necessary.
11			Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or "-" if that behavior should have occurred but did not.
		a	Coach catches Reader's mistake and asks if the Reader to "Check it."
		b	Coach waits 4 seconds before offering help by saying, "Check it."
		c	Coach says the word and moves on.
		d	Coach asks the teacher for help and Reader keeps on reading.
12			Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
13			Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
14			Pair is on-task for most of the allotted time.
15			Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
LAST PAGE READ:			
Comments:			

PARTNER READING — Student Implementation			
1ST READER:		2ND READER:	
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:			
+		— NA PAIR TWO: First Reader Reads - Observe for remaining 2.5 minutes.	
16			First Reader is the Reader first. Second Reader is the Coach first.
17			The pair is reading from the same book (i.e., the pair is not reading from two copies of the same book.)
18			The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.
19			Reader reads clearly and at appropriate volume.
20			Coach listens as the Reader reads.
21			Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
22			Coach marks 1 point after each sentence the Reader reads correctly. Pair receives "-" if they are marking points inappropriately: A) not marking points at all, B) cheating, C) marking points incorrectly or inconsistently (e.g., marking too many points, marking after every paragraph).
23			Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
24			Reader asks for help, if necessary.
25			Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or "-" if that behavior should have occurred but did not.
		a	Coach catches Reader's mistake and asks if the Reader to "Check it."
		b	Coach waits 4 seconds before offering help by saying, "Check it."
		c	Coach says the word and moves on.
		d	Coach asks the teacher for help and Reader keeps on reading.
26			Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
27			Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
28			Pair is on-task for most of the allotted time.
29			Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
END TIME:		LAST PAGE READ:	
Comments:			

PARTNER READING — Student Implementation				
START TIME:		FIRST PAGE READ:		
+	—	NA	PAIR ONE: Second Reader Reads - Go back to Pair One. Observe for first 2.5 mins.	
30			Students switch jobs. It is now the Second Reader's turn to read.	
31			Reader begins reading within 30 seconds of the teacher's first command to begin.	
32			The Second Reader starts on the first page that the First Reader read that day during Partner Reading.	
33			Reader reads clearly and at appropriate volume.	
34			Coach listens as the Reader reads.	
35			Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.	
36			Coach marks 1 point after each sentence the Reader reads correctly. Pair receives "-" if they are marking points inappropriately: A) not marking points at all, B) cheating, C) marking points incorrectly or inconsistently (e.g., marking too many points, marking after every paragraph).	
37			Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors.	
38			+	-
39			Reader asks for help, if necessary.	
			Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.	
		a	+	-
		b	+	-
		c	+	-
		d	+	-
40			+	-
41			+	-
42			Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.	
43			Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.	
			Pair is on-task for most of the allotted time.	
			Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.	
LAST PAGE READ:				
Comments:				

PARTNER READING — Student Implementation				
FIRST PAGE READ:				
	+	—	NA	PAIR TWO: Second Reader Reads - Go back to Pair Two. Observe for last 2.5 mins.
44				Students switch jobs. It is now the Second Reader's turn to read.
45				The Second Reader starts on the first page that the First Reader read that day during Partner Reading.
46				Reader reads clearly and at appropriate volume.
47				Coach listens as the Reader reads.
48				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
49				Coach marks 1 point after each sentence the Reader reads correctly. Pair receives "-" if they are marking points inappropriately: A) not marking points at all, B) cheating, C) marking points incorrectly or inconsistently (e.g., marking too many points, marking after every paragraph).
50				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
51				Reader asks for help, if necessary.
52				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
			a	Coach catches Reader's mistake and asks if the Reader to "Check it."
			b	Coach waits 4 seconds before offering help by saying, "Check it."
			c	Coach says the word and moves on.
			d	Coach asks the teacher for help and Reader keeps on reading.
53				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
54				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
55				Pair is on-task for most of the allotted time.
56				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
END TIME: LAST PAGE READ:				
Comments:				

RETELL — Teacher Implementation				
	+	—	NA	General Teacher Implementation: Retell
1				Teacher's transition between Partner Reading and Retell is brief (30 seconds or less). However, brief reviews are allowable and desirable. If the teacher reviews procedures and most students are attentive and remain on-task during the review, they will still receive a "+" even if the transition is longer than 30 seconds.
2				Teacher reviews Retell procedures, as needed. Students are attentive and remain on-task during the review. Teacher only receives a "-" if the teacher reviews procedures and most students are inattentive and/or off-task. They receive a "NA" if there was no review.
3				Teacher implements Retell for 1-2 minutes.
	+	—	NA	Monitoring and Motivation: Retell
1				Teacher listens to at least 1 pair during Retell.
2				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately during Retell. Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
3				Teacher verbally praises or gives bonus PALS Points to the whole group or pairs for exhibiting desired PALS behaviors. Teacher receives a "-" if she/he awards points to pairs behaving inappropriately. "NA" if you did not observe either behavior.
4				Teacher provides specific positive feedback and/or specific corrective feedback to students. Teacher receives a "-" if she/he praises students who are behaving inappropriately. "NA" if you did not observe either behavior.
RETELL — Student Implementation				
	+	—	NA	General
1				Most students begin Retell within 30 seconds of teacher's first command to begin.
2				Most students are on-task during Retell.
3				Most students work cooperatively together during Retell. Arguing/complaining is minimal.
	+	—	NA	PAIR ONE or PAIR TWO (circle one): Listen to one pair during Retell.
START TIME:				
1				First Reader asks the 2nd Reader to tell the first event in the text.
2				Second Reader tells the first event in the text.
3				First Reader asks the Second Reader to tell the next event in the text.
4				Second Reader tells the next event in the text.
5				This cycle is repeated until they have retold the events they read in sequence or until the teacher tells them to stop.
6				Partners provide help, if necessary by telling their partner the next thing that happened.
7				Students award themselves up to 10 points for Retell or they did not try their best and they did not award themselves 10 points. If they receive a "-", please circle reason: A) They did not work on the activity, but still marked 10 points. B) They did satisfactory work on Retell, but they did not award themselves any points.
END TIME:				
Comments:				
If teacher has not trained students in Retell, please note what he/she is doing in substitution or reason for delay.				

PARAGRAPH SHRINKING — Teacher Implementation				
	+	—	NA	General Implementation: Paragraph Shrinking
1				Teacher's transition between Retell and Paragraph Shrinking is brief (30 seconds or less). However, brief reviews are allowable and desirable. If the teacher reviews procedures and most students are attentive and remain on-task during the review, they will still receive a "+" even if the transition is longer than 30 seconds.
2				Teacher reviews Paragraph Shrinking procedures, as needed. Students are attentive and remain on-task during the review. Teacher only receives a "-" if the teacher reviews procedures and most students are inattentive and/or off-task. They receive a "NA" if there was no review.
3				Teacher implements Paragraph Shrinking for 5 minutes for First Reader.
4				Teacher's transition between switching partners is brief (30 seconds or less). However, brief reviews are allowable and desirable, as long as most students are attentive and remain on-task during the review (this would still earn a "+").
5				Teacher implements Paragraph Shrinking for 5 minutes for Second Reader.
	+	—	NA	Monitoring and Motivation: Paragraph Shrinking
1				Teacher circulates among pairs and does not sit with the same pair during the entirety of Paragraph Shrinking.
2				Teacher listens to at least 2 pairs during Paragraph Shrinking.
3				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately during Paragraph Shrinking. Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
4				Teacher verbally praises or gives bonus PALS Points to the whole group or pairs for exhibiting desired PALS behaviors. Teacher receives a "-" if she/he awards points to pairs behaving inappropriately. "NA" if you did not observe either behavior.
5				Teacher provides specific positive feedback and/or specific corrective feedback to students. Teacher receives a "-" if she/he praises pairs behaving inappropriately. "NA" if you did not observe either behavior.
PARAGRAPH SHRINKING — Student Implementation				
	+	—	NA	General
1				Students know what to read (i.e., they start from where the Second Reader left off in Partner Reading; or the teacher assigns them different reading materials for this activity.)
2				Most First Readers begin Paragraph Shrinking within 30 seconds of the teacher's first command to begin.
3				Most First Readers are on-task for the entirety of the 5 minutes allotted.
4				Most Second Readers begin Paragraph Shrinking within 30 seconds of the teacher's first command to begin.
5				Most Second Readers are on-task for the entirety of the 5 minutes allotted.
6				Most students work cooperatively together during Paragraph Shrinking. Arguing/complaining is minimal.
Comments:				
If teacher has not trained students in Paragraph Shrinking, please note what he/she is doing in substitution or reason for delay.				

PARAGRAPH SHRINKING — Student Implementation				
START TIME:		1ST READER:		2ND READER:
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:				
	+	—	NA	PAIR THREE: First Reader Reads - Observe for first 2.5 minutes out of 5 minutes.
1				First Reader appears to have started reading where the Second Reader left off in Partner Reading or begins in new text assigned by the teacher specifically for the Paragraph Shrinking activity.
2				The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.
3				First Reader is the Reader first. Second Reader is the Coach first.
4				Reader begins reading within 30 seconds of the teacher's first command to begin.
5				Reader reads clearly and at appropriate volume.
6				Coach listens as the Reader reads.
7				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
8				Coach stops Reader after each paragraph (or other appropriate increment) and asks him/her to name the most important who or what. + -
9				Reader correctly identifies the most important who or what. + -
10				Coach asks Reader to tell the most important thing about the who or what. + -
11				Reader correctly identifies the most important thing about the who or what. + -
12				Coach asks the Reader to say the main idea in ten words or less. + -
13				Reader shrinks the main idea into a ten words or less statement. Reader may make multiple attempts. + -
14				Coach counts number of words in Reader's main idea statement. "-" if the Coach does not notice that the Reader has said more than 10 words in the main idea statement. + -
15				Coach marks 1 point when the Reader names the most important who or what. + -
16				Coach marks 1 point when the Reader provides the most important thing about the main who or what. + -
17				Coach marks 1 point when Reader shrinks the main idea statement into 10 words or less. + -
18				Coach uses appropriate Paragraph Shrinking helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
			a	Coach asks Reader to "Check it." + -
			b	Coach provides a hint, "Let me give you a hint..." + -
			c	Coach provides the answer, "The answer is..." + -
			d	If the Reader says the main idea in more than 10 words, "Shrink it." + -
(Continued on the next page)				
Comments:				

PARAGRAPH SHRINKING — Student Implementation				
	+	—	NA	PAIR THREE: First Reader Reads CONTINUED
20				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
21				Reader asks for help with difficult words, if necessary.
22				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
			a	Coach catches Reader's mistake and asks if the Reader to "Check it."
			b	Coach waits 4 seconds before offering help by saying, "Check it."
			c	Coach says the word and moves on.
			d	Coach asks the teacher for help and Reader keeps on reading.
23				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
24				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
25				Pair is on-task for most of the allotted time.
26				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
LAST PAGE READ:				
Comments:				

PARAGRAPH SHRINKING — Student Implementation						
1ST READER:		2ND READER:				
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:						
+		—		NA		
PAIR FOUR: First Reader Reads - Observe for remaining 2.5 minutes.						
27				First Reader appears to have started reading where the Second Reader left off in Partner Reading or begins in new text assigned by the teacher specifically for the Paragraph Shrinking activity.		
28				The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.		
29				First Reader is the Reader first. Second Reader is the Coach first.		
30				Reader reads clearly and at appropriate volume.		
31				Coach listens as the Reader reads.		
32				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.		
33				+	-	
				Coach stops Reader after each paragraph (or other appropriate increment) and asks him/her to name the most important who or what.		
34				+	-	
				Reader correctly identifies the most important who or what.		
35				+	-	
				Coach asks Reader to tell the most important thing about the who or what.		
36				+	-	
				Reader correctly identifies the most important thing about the who or what.		
37				+	-	
				Coach asks the Reader to say the main idea in ten words or less.		
38				+	-	
				Reader shrinks the main idea into a ten words or less statement. Reader may make multiple attempts.		
39				+	-	
				Coach counts number of words in Reader's main idea statement. "-" if the Coach does not notice that the Reader has said more than 10 words in the main idea statement.		
40				+	-	
				Coach marks 1 point when the Reader names the most important who or what.		
41				+	-	
				Coach marks 1 point when the Reader provides the most important thing about the main who or what.		
42				+	-	
				Coach marks 1 point when Reader shrinks the main idea statement into 10 words or less.		
43				Coach helps the Reader using one of the following helping strategies if the Reader is having a difficult time with the Paragraph Shrinking components or main idea statement . Mark as many as apply:		
				a	+	-
				Coach asks Reader to "Check it."		
				b	+	-
				Coach provides a hint, "Let me give you a hint..."		
				c	+	-
				Coach provides the answer, "The answer is..."		
				d	+	-
				If the Reader says the main idea in more than 10 words, "Shrink it."		
(Continued on the next page)						
Comments:						

PARAGRAPH SHRINKING — Student Implementation				
	+	—	NA	PAIR FOUR: First Reader Reads CONTINUED
45				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
46				Reader asks for help with difficult words, if necessary.
47				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
			a	Coach catches Reader's mistake and asks if the Reader to "Check it."
			b	Coach waits 4 seconds before offering help by saying, "Check it."
			c	Coach says the word and moves on.
			d	Coach asks the teacher for help and Reader keeps on reading.
48				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
49				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
50				Pair is on-task for most of the allotted time.
51				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
END TIME:		LAST PAGE READ:		
Comments:				

PARAGRAPH SHRINKING — Student Implementation				
START TIME:		FIRST PAGE READ:		
		PAIR THREE: Second Reader Reads - Go back to Pair Three. Observe for first 2.5 minutes.		
	+	-	NA	
52				Second Reader appears to have started reading where the First Reader left off in Paragraph Shrinking.
53				Students switch jobs. It is the Second Reader's turn to read.
54				Reader begins reading within 30 seconds of the teacher's first command to begin.
55				Reader reads clearly and at appropriate volume.
56				Coach listens as the Reader reads.
57				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
58				Coach stops Reader after each paragraph (or other appropriate increment) and asks him/her to name the most important who or what. + -
59				Reader correctly identifies the most important who or what. + -
60				Coach asks Reader to tell the most important thing about the who or what. + -
61				Reader correctly identifies the most important thing about the who or what. + -
62				Coach asks the Reader to say the main idea in ten words or less. + -
63				Reader shrinks the main idea into a ten words or less statement. Reader may make multiple attempts. + -
64				Coach counts number of words in Reader's main idea statement. "-" if the Coach does not notice that the Reader has said more than 10 words in the main idea statement. + -
65				Coach marks 1 point when the Reader names the main who or what. + -
66				Coach marks 1 point when the Reader provides the most important thing about the main who or what. + -
67				Coach marks 1 point when Reader shrinks the main idea statement into 10 words or less. + -
68				Coach helps the Reader using one of the following helping strategies if the Reader is having a difficult time with the Paragraph Shrinking components or main idea statement. Mark as many as apply:
	a			Coach asks Reader to "Check it." + -
	b			Coach provides a hint, "Let me give you a hint..." + -
	c			Coach provides the answer, "The answer is..." + -
	d			If the Reader says the main idea in more than 10 words, "Shrink it." + -
(Continued on the next page)				
Comments:				

PARAGRAPH SHRINKING — Student Implementation				
	+	—	NA	PAIR THREE: Second Reader Reads CONTINUED
70				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
71				Reader asks for help with difficult words, if necessary.
72				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
			a	Coach catches Reader's mistake and asks if the Reader to "Check it."
			b	Coach waits 4 seconds before offering help by saying, "Check it."
			c	Coach says the word and moves on.
			d	Coach asks the teacher for help and Reader keeps on reading.
73				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
74				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
75				Pair is on-task for most of the allotted time.
76				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
LAST PAGE READ:				
Comments:				

PARAGRAPH SHRINKING — Student Implementation						
FIRST PAGE READ:						
			PAIR FOUR: Second Reader Reads - Go back to Pair Three. Observe for last 2.5 minutes.			
	+	-	NA			
77				Second Reader appears to have started reading where the First Reader left off in Paragraph Shrinking.		
78				Students switch jobs. It is the Second Reader's turn to read.		
79				Reader reads clearly and at appropriate volume.		
80				Coach listens as the Reader reads.		
81				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.		
82				Coach stops Reader after each paragraph (or other appropriate increment) and asks him/her to name the main who or what.	+	-
83				Reader correctly identifies the main who or what.	+	-
84				Coach asks Reader to tell the most important thing about the who or what.	+	-
85				Reader correctly identifies the most important thing about the who or what.	+	-
86				Coach asks the Reader to say the main idea in ten words or less.	+	-
87				Reader shrinks the main idea into a ten words or less statement. Reader may make multiple attempts.	+	-
88				Coach counts number of words in Reader's main idea statement. "-" if the Coach does not notice that the Reader has said more than 10 words in the main idea statement.	+	-
89				Coach marks 1 point when the Reader names the main who or what.	+	-
90				Coach marks 1 point when the Reader provides the most important thing about the main who or what.	+	-
91				Coach marks 1 point when Reader shrinks the main idea statement into 10 words or less.	+	-
92				Coach helps the Reader using one of the following helping strategies if the Reader is having a difficult time with the Paragraph Shrinking components or main idea statement. Mark as many as apply:		
			a	Coach asks Reader to "Check it."	+	-
			b	Coach provides a hint, "Let me give you a hint..."	+	-
			c	Coach provides the answer, "The answer is..."	+	-
			d	If the Reader says the main idea in more than 10 words, "Shrink it."	+	-
(Continued on the next page)						
Comments:						

PARAGRAPH SHRINKING — Student Implementation			
	+	—	NA
PAIR FOUR: Second Reader Reads CONTINUED			
94			Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors .
			+ -
95			Reader asks for help with difficult words, if necessary.
			+ -
96			Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.
		a	Coach catches Reader's mistake and asks if the Reader to "Check it."
		b	Coach waits 4 seconds before offering help by saying, "Check it."
		c	Coach says the word and moves on.
		d	Coach asks the teacher for help and Reader keeps on reading.
			+ -
97			Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.
			+ -
98			Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.
			+ -
99			Pair is on-task for most of the allotted time.
100			Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
END TIME:		LAST PAGE READ:	
Comments:			

PREDICTION RELAY — Teacher Implementation				
	+	—	NA	General Implementation: Prediction Relay
1				Teacher's transition between Paragraph Shrinking and Prediction Relay is brief (30 seconds or less). However, brief reviews are allowable and desirable. If the teacher reviews procedures and most students are attentive and remain on-task during the review, they will still receive a "+" even if the transition is longer than 30 seconds.
2				Teacher reviews Prediction Relay procedures, as needed. Students are attentive and remain on-task during the review. Teacher only receives a "-" if the teacher reviews procedures and most students are inattentive and/or off-task. They receive a "NA" if there was no review.
3				Teacher implements Prediction Relay for 5 minutes for First Reader.
4				Teacher's transition between switching partners is brief (30 seconds or less). However, brief reviews are allowable and desirable, as long as most students are attentive and remain on-task during the review (this would still earn a "+").
5				Teacher implements Prediction Relay for 5 minutes for Second Reader.
	+	—	NA	Monitoring and Motivation: Prediction Relay
1				Teacher circulates among pairs and does not sit with the same pair during the entirety of Prediction Relay.
2				Teacher listens to at least 2 pairs during Prediction Relay.
3				Teacher awards bonus PALS Points or provides specific positive reinforcement to at least 1 pair behaving appropriately during Prediction Relay. Teacher issues corrective feedback and does not award bonus points to pairs behaving inappropriately. "NA" if teacher does not award bonus points.
4				Teacher verbally praises and/or gives bonus PALS Points to the whole group or pairs for exhibiting desired PALS behaviors. Teacher receives a "-" if she/he awards points to pairs behaving inappropriately. "NA" if you did not observe either behavior.
5				Teacher provides specific positive feedback and specific corrective feedback to students. Teacher receives a "-" if she/he praises pairs behaving inappropriately. "NA" if you did not observe either behavior.
PREDICTION RELAY — Student Implementation				
	+	—	NA	General
1				Students know what to read (i.e., they start from where the Second Reader left off on Paragraph Shrinking, the teacher assigns them different reading materials for this activity).
2				Most First Readers begin Prediction Relay within 30 seconds of the teacher's first command to begin.
3				Most First Readers are on-task for the entirety of the 5 minutes allotted.
4				Most Second Readers begin Prediction Relay within 30 seconds of the teacher's first command to begin.
5				Most Second Readers are on-task for the entirety of the 5 minutes allotted.
6				Most students work cooperatively together during Prediction Relay. Arguing/complaining is minimal.
Comments:				
If teacher has not trained students in Prediction Relay, please note what he/she is doing in substitution or reason for delay.				

PREDICTION RELAY — Student Implementation				
START TIME:		1ST READER:		2ND READER:
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:				
	+	—	NA	PAIR FIVE: First Reader Reads - Observe Pair Five for first 2.5 minutes.
1				First Reader appears to have started reading where the Second Reader left off in Paragraph Shrinking or begins in new text assigned by the teacher specifically for the Prediction Relay activity.
2				The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.
3				First Reader is the Reader first. Second Reader is the Coach first.
4				The pair begins Prediction Relay within 30 seconds of the teacher's first command to begin.
5				Reader reads clearly and at appropriate volume.
6				Coach listens as the Reader reads.
7				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.
8				Coach asks Reader to make a prediction before the Reader begins reading, after each half-page, or other appropriate increment. + -
9				Reader makes a reasonable prediction. + -
10				Coach stops Reader after each half-page (or other appropriate increment) and asks the Reader if the prediction came true. + -
11				Reader briefly discusses whether his/her prediction came true (i.e., "yes" or "no" is sufficient). + -
12				Coach awards 1 point to the Reader for making each prediction. + -
13				Coach awards 1 point to the Reader for reading each half-page (or other appropriate increment). + -
14				Coach awards 1 point to the Reader for checking his/her prediction. The Coach marks 1 point even if the prediction did not come true. + -
15				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors. + -
16				Reader asks for help with difficult words, if necessary. + -
17				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or "-" if that behavior should have occurred but did not.
			a	Coach catches Reader's mistake and asks if the Reader to "Check it." + -
			b	Coach waits 4 seconds before offering help by saying, "Check it." + -
			c	Coach says the word and moves on. + -
			d	Coach asks the teacher for help and Reader keeps on reading. + -
18				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach. + -
19				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner. + -
20				Pair is on-task for most of the allotted time.
21				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.
LAST PAGE READ:				

PREDICTION RELAY — Student Implementation					
1ST READER:		2ND READER:			
Book Type: (circle one) Basal Chapter Book Content Area Textbook Other ; First page read:					
	+	—	NA	PAIR SIX: First Reader Reads - Observe Pair Six for last 2.5 minutes.	
22				First Reader appears to have started reading where the Second Reader left off in Paragraph Shrinking or begins in new text assigned by the teacher specifically for the Prediction Relay activity.	
23				The book is placed where both students in the pair (or all students in the triad) can read from the book and follow along as their partner(s) read.	
24				First Reader is the Reader first. Second Reader is the Coach first.	
25				Reader reads clearly and at appropriate volume.	
26				Coach listens as the Reader reads.	
27				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.	
28				+	-
29				+	-
30				+	-
31				+	-
32				+	-
33				+	-
34				+	-
35				+	-
36				+	-
37				+	-
			a	+	-
			b	+	-
			c	+	-
			d	+	-
38				+	-
39				+	-
40				Pair is on-task for most of the allotted time.	
41				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.	
END TIME:		LAST PAGE READ:			

PREDICTION RELAY — Student Implementation				
START TIME:		FIRST PAGE READ:		
+	—	NA	PAIR FIVE: Second Reader Reads - Go back to Pair Five. Observe for first 2.5 minutes.	
42			Second Reader appears to have started reading where the First Reader left off in Prediction Relay.	
43			Students switched jobs. It is the Second Reader's turn to read.	
44			The pair begins Prediction Relay within 30 seconds of the teacher's first command to begin.	
45			Reader reads clearly and at appropriate volume.	
46			Coach listens as the Reader reads.	
47			Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.	
48			+	-
			Coach asks Reader to make a prediction before the Reader begins reading, after each half-page, or other appropriate increment.	
49			+	-
			Reader makes a reasonable prediction.	
50			+	-
			Coach stops Reader after each half-page (or other appropriate increment) and asks the Reader if the prediction came true.	
51			+	-
			Reader briefly discusses whether his/her prediction came true (i.e., "yes" or "no" is sufficient).	
52			+	-
			Coach awards 1 point to the Reader for making each prediction.	
53			+	-
			Coach awards 1 point to the Reader for reading each half-page (or other appropriate increment).	
54			+	-
			Coach awards 1 point to the Reader for checking his/her prediction. The Coach marks 1 point even if the prediction did not come true.	
55			+	-
			Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors.	
56			+	-
			Reader asks for help with difficult words, if necessary.	
57				
			Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or "-" if that behavior should have occurred but did not.	
		a	+	-
			Coach catches Reader's mistake and asks if the Reader to "Check it."	
		b	+	-
			Coach waits 4 seconds before offering help by saying, "Check it."	
		c	+	-
			Coach says the word and moves on.	
		d	+	-
			Coach asks the teacher for help and Reader keeps on reading.	
58			+	-
			Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.	
59			+	-
			Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.	
60				
			Pair is on-task for most of the allotted time.	
61				
			Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.	
LAST PAGE READ:				
Comments:				

PREDICTION RELAY — Student Implementation						
FIRST PAGE READ:						
	+	—	NA	PAIR SIX: Second Reader Reads - Go back to Pair Six. Observe for last 2.5 minutes.		
62				Second Reader appears to have started reading where the First Reader left off in Prediction Relay.		
63				Students switched jobs. It is the Second Reader's turn to read.		
64				Reader reads clearly and at appropriate volume.		
65				Coach listens as the Reader reads.		
66				Coach follows along as the Reader reads. In order to earn a "+", the Coach must be looking at the book and reading along with the Reader.		
67				Coach asks Reader to make a prediction before the Reader begins reading, after each half-page, or other appropriate increment.	+	-
68				Reader makes a reasonable prediction.	+	-
69				Coach stops Reader after each half-page (or other appropriate increment) and asks the Reader if the prediction came true.	+	-
70				Reader briefly discusses whether his/her prediction came true (i.e., "yes" or "no" is sufficient).	+	-
71				Coach awards 1 point to the Reader for making each prediction.	+	-
72				Coach awards 1 point to the Reader for reading each half-page (or other appropriate increment).	+	-
73				Coach awards 1 point to the Reader for checking his/her prediction. The Coach marks 1 point even if the prediction did not come true.	+	-
74				Coach identifies word recognition errors most of the time (50% or more of mistakes), as needed. The Coach is allowed to miss two errors with no penalty. Please check "NA" if there were no errors or up to 2 errors that were not caught. Mark a "-" if the Coach misses more than 50% of the errors, when the Reader makes more than 2 errors.	+	-
75				Reader asks for help with difficult words, if necessary.	+	-
76				Coach uses appropriate correction and helping procedures, as needed. Mark a hash mark after each occurrence next to "+" or a "-" if that behavior should have occurred but did not.		
			a	Coach catches Reader's mistake and asks if the Reader to "Check it."	+	-
			b	Coach waits 4 seconds before offering help by saying, "Check it."	+	-
			c	Coach says the word and moves on.	+	-
			d	Coach asks the teacher for help and Reader keeps on reading.	+	-
77				Reader accepts help, if necessary. The Reader corrects his/her mistake or figures out the word using the helping strategy suggested by the Coach.	+	-
78				Reader re-reads the sentence correctly after he/she made a mistake and was helped by his/her partner.	+	-
79				Pair is on-task for most of the allotted time.		
80				Pair works cooperatively together for most of the allotted time. Arguing/complaining is minimal.		
END TIME: _____ LAST PAGE READ: _____						
Comments:						

SCORE SHEET — Fidelity Time 2 Observation					
TEACHER:	SCHOOL:	OBSERVER:			
Tally each score and record totals on this sheet. Then calculate percentages using the formula. Be sure mark initials and date at the bottom as either the original transcriber or the double-checker.		A = Total (+)	B = Total (-)	C = Total (+) and (-)	A/C * 100 = % accuracy
GENERAL — Teacher Implementation: Organization and Set-Up (1-7)					
GENERAL — Teacher Implementation: Monitoring and Motivation (1-2)					
PARTNER READING — General Teacher Implementation (1-5)					
PARTNER READING — Monitoring and Motivation (1-5)					
PARTNER READING — General Student Implementation (1-7)					
PARTNER READING — PAIR ONE & PAIR TWO Student Implementation (1-56)					
RETELL — General Teacher Implementation (1-3)					
RETELL — Monitoring and Motivation (1-4)					
RETELL — General Student Implementation (1-3)					
RETELL — PAIR ONE & PAIR TWO Student Implementation (1-7)					
PARAGRAPH SHRINKING — General Teacher Implementation (1-5)					
PARAGRAPH SHRINKING — Monitoring and Motivation (1-5)					
PARAGRAPH SHRINKING — General Student Implementation (1-6)					
PARAGRAPH SHRINKING — PAIR THREE & PAIR FOUR Student Implementation (1-95)					
PREDICTION RELAY — General Teacher Implementation (1-5)					
PREDICTION RELAY — Monitoring and Motivation (1-5)					
PREDICTION RELAY — General Student Implementation (1-6)					
PREDICTION RELAY — PAIR FIVE & PAIR SIX Student Implementation (1-80)					
TRANSCRIBING & CALCULATION BY:			DATE:		
DOUBLE-CHECKING OF TRANSCRIBING & CALCULATION BY:			DATE:		

yes	no	NA	TEACHER DIRECTED TIER II
			START UP
			Teacher announces, "It's time to read."
			Materials are distributed in less than 2 minutes.
			Teacher provides BSPF to at least 1 students during arrival and set up.
			Teacher reviews procedures or NA if no review.
			Students know what page to be on in their text.
			TEACHER/STUDENT READING
			Teacher reads aloud for 4 minutes.
			Teacher randomly calls on students or groups of students to read for random intervals of time, totalling 6 minutes.
			Students read aloud the same text the teacher read.
			Students are on reading along in their books throughout the 10 minutes.
			Teacher circulates as reads and as students read.
			Teacher provides BSPF to at least 3 students during reading.
			Students are on reading along in their books throughout the 10 minutes.
			Teacher provides standard error correction procedure for any errors in reading.
			Student(s) who have made an error, repeat the word when corrected, and start the sentence again.
			RETELL
			Students respond with what happened 1st, 2nd, 3rd, etc. for up to 2 minutes.
			Teacher provides BSPF to at least 1 student during retelling.
			PARAGRAPH SHRINKING
			Teacher selects students to read.
			Teacher selects students to identify the main who or what after each paragraph.
			Teacher selects students to identify the most important thing about the who or what after each paragraph.
			Teacher asks for main idea statement after each paragraph.
			Teacher and students say "Shrink it," if the main idea statement is more than 10 words.
			Teacher provides BSPF to at least 3 students during reading.
			Students write the current page number on the back of their bookmark.
			Materials are put away quickly at end of lesson.
			Teacher incorporates schoolwide positive reward system

Classroom Atmosphere Rating Scale

Date : _____

Teacher: _____ School: _____ # of Students : _____ Observer: _____ Activity: _____

1	Students' level of COMPLIANCE during structured time (age appropriate blurring out, out of seat, etc. is NOT disruptive)
1	Very High Students are showing high levels of compliance and on task behavior throughout the entire observation period. NO instances of acting out/disruptive behavior, such as continued verbal disruptions or any aggressive acts are observed.
2	Moderately High Students are showing fairly high levels of compliance for the majority of the observation period (at least 80% of the session.) Two or less disruptions, by different individuals, are observed.
3	Average Students are displaying average levels of compliance during the observation period (between 60% and 80% of the session.) Frequency of disruptive behavior is between three and five (displayed by three or more individuals.)
4	Moderately Low Students display below average levels of compliance, between 40% and 60%. Frequency of disruptive acts is between five and seven.
5	Very Low Students are displaying high levels of loud arguing, loud speaking, horseplay, noise, noncompliance, complaining, and these behaviors clearly interfere with the ongoing activity of the group. Students display less than 12 minutes of compliant behavior. Instances of disruptive behavior exceed seven.
6	Unable to Code Unable to code because less than 10 minutes of the observation was conducted during structured time.

2	Students' seem to handle TRANSITIONS well. This rating is scored only during transition times. As different numbers of transitions may be observed in different sessions, you should average across the number of transitions observed in a particular session when arriving at a rating.
1	Very High Students are showing high levels of compliance and on task behavior during the transitions between activities during class time transitions (transitions between individualized seatwork, small group, or whole class didactic sessions) or during transitions between classroom activities and those outside the class (usually coming and going to recess.) No instances of acting out/disruptive behavior are observed.
2	Moderately High Students are showing fairly high levels of compliance during transition periods (at least 80% of the session.) Two or less disruptions, by different individuals, are observed.
3	Average Students are displaying average levels of compliance during the observation period. Frequency of disruptive behavior is between three and five (displayed by three or more individuals.)
4	Moderately Low Students display below average levels of compliance, between 40% and 60%. Frequency of disruptive acts is between five and seven in each transition.
5	Very Low Students are displaying high levels of loud arguing, loud speaking, horseplay, noise, and noncompliance during transition periods. Instances of disruptive behavior exceed seven.
6	Unable to Code Unable to code because no transitions occurred during the observation period.

Observation 1

1/1/13/2008 8:07 AM

Classroom Atmosphere Rating Scale

Date : _____

3	Students consistently follow RULES appropriate to settings. (Only code during classroom time - not on playground. If a child was breaking a rule, e.g. in the wrong activity area but complies when the teacher reminds them, don't count as a rule violation.)
1	Very High Students appear to be conscious of and follow classroom rules throughout the entire observation period. No instances of rule violations are observed.
2	Moderately High Students appear to be conscious of the classroom rules throughout most of the observation period (at least 80% of the session). Less than two rule violations, by different individuals, are observed.
3	Average Students are displaying typical levels of following rules during 60-80% of the observation period. Frequency of rule violations is between three and five (displayed by three or more individuals.)
4	Moderately Low Students display below average levels of following rules, between 40% and 60% of the observation period. Frequency of disruptive acts is between five and seven.
5	Very Low Students do not appear to follow classroom rules. This is indicated by frequent classroom violations (more than seven) that are pointed out by other students or adults. This may be indicated by disruptive behavior. However, the class may get low ratings for this scale without being disruptive or having been disciplined or reminded by others (e.g., they may talk out of turn, be out of their seats, or do other actions that violate the rules but are not reprimanded.)
6	Unable to Code Unable to code because less than 10 minutes of the observation was conducted during structured time.

4	Students' level of COOPERATION.
1	Very High Students frequently and actively share materials, games, activities, and resources with each other so as to reach common goals or to assist each other. This occurs throughout the observation period. Children regularly praise and give positive feedback to one another.
2	Moderately High Students are showing fairly high levels of cooperation for the majority of the observation period (at least 80% of the session.) Two or less unresolved disruptions, by different individuals, regarding the sharing of materials/equipment are observed.
3	Average Students are displaying typical levels of cooperation during the observation period (between 60% and 80% of the session.) Frequency of unresolved disputes over resources is between three and five (displayed by three or more individuals.)
4	Moderately Low Students display below average levels of cooperation within the setting, between 40% and 60% of the observation period. Frequency of resource related unresolved disputes is between five and seven.
5	Very Low Students show a low level of cooperation with each other and with adults. This is shown in lack of sharing of materials, an atmosphere that focuses on individuality rather than working together. There are frequent unresolved arguments/conflicts regarding materials, play equipment, sharing of resources, etc.
6	Unable to Code Unable to code because opportunities for cooperative engagements were not observed.

Classroom Atmosphere Rating Scale

Date : _____

7	Students' level of INTEREST/ENTHUSIASM/INVOLVEMENT.	
1	Very High	Students appear to be absorbed and enjoying classroom activities. Students ask questions, make suggestions, and show reluctance to stop classroom activities. This level of focus occurs for the entire observation period.
2	Moderately High	Students are showing fairly high levels of interest/enthusiasm for the majority of the observation period (at least 80% of the session.)
3	Average	Students are displaying typical levels of interest/enthusiasm during the observation session, between 60% and 80% of the session.)
4	Moderately Low	Students display below average levels of interest/enthusiasm during the observation session, between 40% and 60%. They are frequently bored and restless.
5	Very Low	Students seem vacant, restless, bored, and lethargic. The atmosphere lacks a sense of focused energy and involvement. They do not ask questions or get involved in teacher-led activities.
6	Unable to Code	Unable to code because less than 10 minutes of the observation was conducted during structured time.

8	Classroom is FOCUSED and ON-TASK.	
1	Very High	Students show little off-task behavior and are giving their full attention to legitimate class activities, whether during small group time, class discussion, circle time, etc.
2	Moderately High	Students are showing fairly high levels of on-task behavior for the majority of the observation period (at least 80% of the session.)
3	Average	Students are displaying typical levels of on-task behavior during the observation period (between 60% and 80% of the session.)
4	Moderately Low	Students display below average levels of on-task behavior within the setting, between 40% and 60% of the observation period.
5	Very Low	Students are easily distracted from legitimate classroom activities, daydreaming, getting out of their seats without permission, talking to others when not permitted, etc.
6	Unable to Code	Unable to code because less than 10 minutes of the observation was conducted during structured time.

10	Classroom is SUPPORTIVE of STUDENTS' EFFORTS.	
1	Very High	The classroom atmosphere is positive, supportive, and praising. Students' successes are emphasized rather than weaknesses or failures. Help and encouragement are offered when there are problems and it is done without significant irritation or criticism.
2	Moderately High	Students are showing fairly high levels of support for the majority of the observation period (at least 80% of the session.)
3	Average	Students are displaying typical levels of support during the observation period (between 60% and 80% of the session.)
4	Moderately Low	Students display below average levels of support within the setting, between 40% and 60% of the observation period.
5	Very Low	The classroom atmosphere is one that is critical and negative. Children don't receive praise or compliments from each other or adults for good behavior or academic effort.
6	Unable to Code	Unable to code because less than 10 minutes of the observation was conducted during structured time.

Observation 1

11/13/2008 8:07 AM

Page 1 & 2 Instructions

Before the actual observation, become very familiar with the categories. If you have questions about any of the categories, please ask for examples prior to the observation. If you observe something during the observation that you think may fit on the chart but you are uncertain about its categorization, please make a note of the time frame (e.g., "3:00-5:00" and note what you observed. When you return, email your supervisor).

Page 1 Only: Fill out Teacher Name, School Name, number of students present during the observation, Date and the starting and ending times of your observation.

Set your timer to count up.

During each 2 minute timeframe, if you observe a particular category of instruction at least one time (even if it is just for a couple of seconds), please note a checkmark in the box. You may check as many items as are appropriate during each two minute timeframe. You are not denoting the length of time (e.g., 1 out of the 2 minutes, # of seconds of appearance), just did you observe (Observed = Ö) or did you not observe (Did not observe = Blank) this form of instruction in each 2 minute window?

In the 1 minute window between each 2 minute observation timeframe, please use this time to take notes. Please note the beginning of the timeframe (e.g., 0:00 or 24:00). You do not have to take extensive notes. Use this time to note things you observed which don't fit neatly in a category or you are not sure which category it might belong.

If students are in small groups, focus on what the entire classroom is doing, not just one or two pairs, if possible. If some pairs are doing science or math centers, you do not have to observe those pairs carefully, but please make a note of it in your notes.

If there is too much going on, the default is to observe the teacher.

Teacher: _____ School: _____ # of students: _____ Observer: _____ Date: _____ Start Time: _____ End Time: _____

LITERACY CHECKLIST: GRADES 2 & UP												Observation Notes:
#	0:00-2:59	3:00-5:59	6:00-8:59	9:00-11:59	12:00-14:59	15:00-17:59	18:00-20:59					
Phonics Activities Students learn to use letter sound relations												
1												
1 Embedded phonics (learn phonics in text reading - more												
2 Phonics through spelling (students learn to spell words in												
Instruction in Fluency												
3												
3 Guided oral reading practice (teacher corrects miscues,												
4 Guided repeated oral reading (read text aloud with teacher												
5 Independent silent reading (students read on their own with												
6 Independent oral reading practice												
7 Listening (books on tape, teacher reads)												
Instruction in Vocabulary												
8												
8 Pre-teaching vocabulary words												
9 Group reading activities (reciprocal peer tutoring)												
10 Multiple exposures to vocabulary words												
11 Keyword method (students use keywords and images to												
12 Explicit strategies instruction (feature analysis, morphology)												
13 Prompt students for vocabulary definitions while reading												
14 Graphic organizers (Venn diagrams, timelines), semantic maps												
15 Use technology for vocabulary instruction (software,												
Development And Activation Of Background Knowledge												
16												
16 Introduction and discussion of the topic												
17 Review of relevant vocabulary definitions												
18 Pre-reading activities (brainstorming, concept maps, diagrams)												
19 Free recall, word association												
20 Props, use of objects, visuals (pictures, illustrations,												
21 Writing activities as a pre-reading exercise												
22 Review of text structure and organization												
23 Teachers provide analogies/aneedotes												
24 Advance organizers (outlines, maps, visuals)												
Instruction in Comprehension Strategies												
25												
25 Comprehension monitoring, re-reading for understanding												
26 Cooperative learning (peer or reciprocal tutoring, group work)												
27 Graphic semantic organizers (visual representations such as												
28 Question answering (students answer questions, prompts)												
29 Question generation (students come up with questions)												
30 Story structure (learn to use structural cues such as titles,												
31 Summarization												
32 Writing activities as a post-reading exercise												
Non-Instructional Time												
33												
33 Time not spent on academic activities (transitions, behavior												

POST-OBSERVATION CHECKLIST: GRADES 2 & UP				Observation Notes:
Student Motivation and Engagement		Observed	Not Observed	
1	Student effort is rewarded.			
2	Focus is on task mastery			
Mixture Of Texts Used In Instruction				
3	Expository (non-fiction, informational text)			
4	Fictional text and prose			
5	Magazines, newspapers			
6	Electronic texts (including hypertext)			
Text Materials (Ranging In Difficulty) Are Available				
7	Independent level (student can read on own)			
8	Instructional level (student can read with assistance)			
9	Not frustration level (student cannot read even with assistance)			
Students Read In Authentic Materials				
10	Current events			
11	Texts are culturally relevant and interesting			
12	Multiple sources of information (print, news, books, on-line)			
Collaborative Student Learning In Content Areas				
13	Reciprocal peer tutoring			
14	Heterogenous ability grouping (mixed ability groups)			
15	Homogenous ability grouping (similar ability groups)			
16	Cross-age tutoring			
Technology Used To Leverage Instructional Time				
17	Students have access to computers (in lab or classroom)			
18	Reading software provides practice in reading skills			
19	Computers used for word processing			
20	Use of multimedia books and hypertext			
General Observations				
21	Reading instruction in content area materials			
22	Students are taught in whole groups and small groups			
23	Reading instruction is direct, explicit and systematic			
24	Writing activities are incorporated into instruction			
25	Appropriate assessments for reading progress monitoring and for diagnosis			
26	Extend literacy activities outside of the classroom (after-school programs, encourage parental involvement, etc.)			

POST-OBSERVATION CHECKLIST (following Gersten, Dimino, & Jayanthi)						
During Instruction						
27	Teacher gave inaccurate and/or confusing explanations.			Y		N
28	Teacher missed opportunity to correct or address error, or provided confusing or inaccurate feedback.			Y		N
29	Teacher called individually on about half or more students.			Y		N
Based on your overall judgment, how would you rate the quality of each domain observed (circle one)						
	Domain of Instruction	Not Observed	Minimal Quality/Effort	Partially Effective	Good	Excellent
30	Phonics	N/A	1	2	3	4
31	Fluency	N/A	1	2	3	4
32	Vocabulary	N/A	1	2	3	4
33	Activation of background knowledge	N/A	1	2	3	4
34	Comprehension strategies	N/A	1	2	3	4
Please rate the management/responsiveness to students on the following 4-point scale (circle one)						
	Management/Responsiveness to Students	Minimal Quality/Poor	Fair	Good	Excellent	
35	The instructional routines appear to be minimal/poor, fair, good, or excellent	1	2	3	4	
36	The teacher maximizes the amount of time available for instruction (e.g., brief transitions)	1	2	3	4	
37	The teacher manages student behavior effectively in order to avoid disruptions and to provide productive learning environments	1	2	3	4	
How would you rate student engagement today? (circle one)						
	Student Engagement: <i>You may want to reference Webby items #7 & #8. If the classroom received a 1 on the Webby, then they would most likely receive a 3 here. If they received a 2 or 3 on the Webby, they would most likely receive a 2 here. If they received a 4 or 5 on the Webby, then they would most likely receive a 1 here.</i>	Not Applicable	Few students engaged	Many students engaged much of the time	Most students engaged all of the time	
38	Students are engaged during the <u>first 45 minutes</u> of the reading block.	NA	1	2	3	
39	Students are engaged during the remainder of the reading block (in case you stay longer).	NA	1	2	3	