The Effectiveness of Providing Reading Instruction Via Tier 2 of Response to Intervention

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Abstract:

Reading failure is a common achievement problem among students. Thus, schools have actively been used Tier 2 Response to Intervention (RTI) for supporting students with reading problems in small group settings based on the instructional needs of students. The objective and the intent of this literature review is to locate, analyze, and synthesize the qualitative and quantitative research on Tier 2 of reading instruction to identify the RTI approaches, characteristics, and professional development programs that are applied to enhance students' achievements in reading. The primary findings identified that students' reading skills increased following implementation of the Tier 2 of RTI procedure, while at the same time addressing the achievement gaps between students with reading problems and their peers, thus recommending Tier 2 of reading instruction as an effective technique to support students' reading. The results of this literature review study are reported, as well as the application to applied practice.

Keywords: *Professional development, Response to Intervention, Tier 2 of reading instruction*

1. Introduction

Although reading is an essential skill for academic success, many students struggle to develop this skill to an acceptable level. In fact, the problem becomes deeper when students reach advanced grades because they are supposed to read a variety of subjects for different classes, creating a notable gap between their achievement and that of their peers.. To illustrate this point, 21% of these students are predicted to achieve five grade levels below their peers in reading when pursuing secondary education (Solis, Ciullo, Vaughn, Pyle, Hassaram, & Leroux, 2012). Students who have reading problems face difficulty in word recognition, reading fluency, and reading comprehension. In 2013, about 27% of fourth-grade students and 18% of eighth-grade students scored below basic reading level on the National Assessment of Educational Progress (NAEP) (Solis, Miciak, Vaughn, & Fletcher, 2014). These reading problems affect 5% of students, representing 18% of the population (Costa, Edwards, & Hooper, 2016).

The Response to Intervention (RTI) framework is an effective approach that is based on research and can be used to support struggling students through different levels of intervention and prevention (Jiménez, 2010). School programs that have adopted the RTI framework have successfully reduced the number of students who are struggling in reading 1–2% of the population (Al Otaiba & Torgesen, 2007). Students who received reading intervention via the RTI framework gained a significant increase in their reading achievement, compared with students who did not receive reading intervention via RTI. In addition, long-term improvements have been found in students' reading skills (Al Otaiba, Kim, Wanzek, Petscher, & Wagner, 2014).

Although the RTI framework has been a popular intervention that schools use to enhance the skills of struggling readers, no studies have evaluated the effectiveness of implementing a Tier 2 reading intervention to support struggling readers. Thus, the purpose of this study is to locate, analyze, and

synthesize the qualitative and quantitative research on Tier 2 RTI, which is implemented to support struggling readers. The findings suggest that students who are struggling in reading can pass the reading challenges after receiving a Tier 2 intervention in a small group. Indeed, many empirical studies have indicated that students struggling in reading who receive a Tier 2 intervention achieved a level equal to that of their peers who do not have reading problems. While there are positive results in this study, further research is needed to investigate how schools develop an RTI professional development plan. Classroom teachers, consultant teachers, reading specialist assistants, RTI coordinators, and researchers can find useful information from the results of this study, leading to improved practices in implementing Tier 2 reading interventions.

The primary purpose of this literature review is to answer the following questions:
1. What is RTI? Discuss definitions and models of RTI. Why is RTI important?
2. What are the characteristics of Tier 2 reading instruction (e.g., group size, time, progress monitoring, and specific interventions)?
3. What kind of professional development has been implemented to support Tier 2 reading instruction?

2. Method

In order to gain additional knowledge about the effectiveness of Tier 2 instruction in enhancing the outcomes of students with reading problems, a literature review was conducted. This research method has been used for years. Baker (2016) explained that it can be used "to demonstrate the gap (distinguishing what has been done from what needs to be done) in the literature, pointing to the significance of the problem and need for the study or building a case for the quality improvement project to be conducted" (p. 265).

For this literature review study, five steps were followed to locate potential articles. First, qualitative and quantitative studies were collected using three electronic databases: ERIC, EBSCO, and SAGE Journals. Second, the search was conducted using four main terms: RTI professional development, Tier 2 reading intervention, RTI reading intervention, and reading group. Third, of the 277 studies, 44 articles were selected after analysis of the title, abstract, main titles, and subtitles. Fourth, the 44 studies were examined in depth in five areas: group size, time, progress monitoring, specific interventions, and professional development. Twenty studies that related directly to the topic were summarized and reviewed. New information was added to the summaries when necessary. The remaining articles were read carefully, and notes were taken on the most important information in each study. Finally, draft summaries of the articles were written and organized into three categories: RTI, characteristics of Tier 2 reading instruction, and professional development to support Tier 2 reading instruction. The discussion in this study synthesized the evidence, claims, and information about different and similar aspects of the results of the studies. The sources of evidence in this literature review study were survey data, researchers' reports, and data on students' reading achievement.

3. Results

RTI Framework

Schools have used the RTI framework as a fundamental delivery model to meet all students' academic and behavioral needs in a general classroom setting (Ogonosky, 2008). In order to improve students' outcomes, the implementation of this model was supported by important education legislation, such as the No Children Left Behind Act (NCLB) in 2001 and the Individuals with Disabilities Education Improvement Act (IDEA) in 2004 (Maag & Katsiyannis, 2010). According to the National Center on Response to Intervention (2017), the RTI framework is defined as:

A multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in

the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. (para.

Schools implement the RTI framework in numerous ways to include the following core components: giving strong instruction for all students, evaluating all students to identify struggling learners, providing intensive intervention for struggling learners via different levels of intervention, monitoring students' progress, and making decisions based on collected data (Samuels, 2011). These components are usually delivered through three or four tiers of intervention (Carney & Stiefel, 2008). In Tier 1, all students receive high-quality instruction, and their progress is monitored by teachers; 80% of students are at this level. If a student's performance is below the benchmark score at this level, he or she is eligible to receive an intensive evidence-based intervention through RTI Tier 2, which serves 10–15% of students. If students continue to show little progress, they become eligible to gain a more intensive evidence-based intervention through RTI Tier 3, which serves 5–10% of students (Lerner & Johns, 2011). Empirical studies have reflected that three intervention levels is a prevalent model (Noltemeyer, Boone, & Sansosti, 2014).

In fact, few schools applied Tier 4 intervention as a part of special education services (Carney & Stiefel, 2008). The instruction in this level is more intensive than the instruction at previous tiers, as it is developed to fit individual needs of students in an unlimited number of weeks (Klingner & Edwards, 2006). The educational support at this level is provided to students in a timely manner and in explicit and systematic ways. In addition, teachers collect data to compare students' achievement with what is expected of other students of the same age, to make a decision about whether the student should be referred to a special education program (Fuchs & Fuchs, 2006).

Previous studies have determined three important features that distinguish a successful RTI framework: identifying risk through multistage screening, determining a suitable level of instruction through multistage assessment, and supporting the intervention by a special education rule (Fuchs, Fuchs, & Compton, 2012).

In general, schools can choose between a standard protocol approach and a problem-solving approach to deliver a multistage RTI. In the standard protocol approach, the school applies a scientifically validated reading intervention for students who have similar reading problems (Marchand-Martella, Ruby, & Martella, 2007), which is applied individually or via group for a specific duration of 10 to 15 weeks. This approach is easier in application because teachers know what they are supposed to implement as they follow similar instructions. Indeed, this facilitates assessing the fidelity of implementation and training teachers to achieve the implementation's goals (Fuchs & Fuchs, 2006). According to Berkeley, Bender, Peaster, and Saunders (2009), this approach is favorited by researchers, as it is easy to implement and teachers can select research-proven interventions, depending on the school's resources.

In the problem-solving approach, the school applies an inductive method, treating students individually regardless of their reading ability (Carney & Stiefel, 2008). The problem-solving approach can solve both academic and behavioral problems by gathering information to identify the problems, providing different solutions, selecting the best solution for the intervention, and developing an action plan (Ogonosky, 2008). Most of the schools apply a problem-solving approach for several reasons. Fuchs, Mock, Morgan, and Young (2003) state that this approach "may offer several advantages over the problem-solving models: everyone knows what to implement, and it is training practitioners to conduct one intervention correctly and to assess the accuracy of implementation" (p. 166). Indeed, Jenkins, Schiller, Blackorby, Thayer, and Tilly (2013) reported that schools applied these approaches according to their target goals; 84% of 62 elementary schools

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focused on implementing reading instructions, and 62% of the schools focused on math, while 47% of schools focused on supporting positive behavior. However, there are no studies comparing different RTI frameworks in order to determine the best implementation. Fuchs and Fuchs (2006) indicated that there is no experimental study conducted to examine the effectiveness and fidelity in implementing a standard protocol approach and a problem-solving approach in one design.

Fortunately, since IDEA 2004 required schools to implement the RTI framework, students have benefited from this school service. They get immediate support via systematic intervention that targets specific skills and reflects their needs. As a result, they do not leave without intervention if it's needed, and there is no longer a gap between their IQ and academic achievement, as there had been in the previous decade (Fletcher & Vaughn, 2009). Schools now review the effectiveness and quality of teaching to ensure that the instruction is designed to meet students' individual characteristics (Buffum, Mattos, & Weber, 2010). Furthermore, the RTI framework gives schools the opportunity to apply prevention services in addition to the intervention by utilizing RTI as a sophisticated method to identify students with learning disabilities (Ofiesh, 2006). Through this framework, schools analyze not only students' academic achievement but also their behavior and cognitive skills, using this information to decide if any modifications are necessary to improve students' performance (Solis, Miciak, Vaughn, & Fletcher, 2014). Thus, the RTI framework is considered a promising approach developed to meet students' needs.

There are many studies indicating that 80% to 85% of students responded successfully at the first tier of intervention, and 80% of them met state standards in math, reading, writing, and science (Johnson & Smith, 2008).

4. The Characteristics of Tier 2 Reading Instruction

Tier 2 of RTI was designed to support struggling learners. It is known as a secondary prevention and is used by schools to provide supplemental intensive instruction to small groups of struggling students by periodically monitoring their progress (Rinaldi & Samson, 2008). In Tier 2, 17% of struggling readers are supported, closing the achievement gap between themselves and their peers (Johnson & Boyd, 2013). Their complicated reading problems include a lack of knowledge, vocabulary development, and reading comprehension, but these can be improved after receiving reliable instruction for a significant period, as well as ongoing assessment for reading outcomes (Vaughn & Fletcher, 2012). However, schools use different methods of implementing Tier 2 reading interventions to support struggling readers. Jenkins et al. (2013) used a survey design to investigate the implementation of a Tier 2 RTI framework for reading at 62 elementary schools in 17 states; 48% of the schools implemented Tier 2 RTI outside of Tier 1 intervention, while 20% of the schools implemented Tier 2 RTI inside Tier 1 intervention. Meanwhile, 32% of the schools applied Tier 2 to support struggling readers both inside and outside Tier 1 RTI. In general, there is a lack of studies published to investigate the common characteristics of Tier 2 reading instructions that relate to group size, time, progress monitoring, and specific interventions.

Numerous studies have suggested that schools apply Tier 2 reading instructions to small or large groups of students for different durations. Some schools provide reading instructions to small groups of two to four students (Catts, Nielsen, Bridges, Liu, & Bontempo, 2015; Fletcher et al., 2011; Ritchey, Silverman, Montanaro, Speece, & Schatschneider, 2012). The large groups include six to ten students (Mellard, McKnight, & Jordan, 2010) or 10 to 15 students (Solis, Miciak, Vaughn, & Fletcher, 2014). Indeed, the impact of group size on students' achievement in reading has been discussed by educators; however, there has been no agreement regarding the number of students that should be enrolled in a reading instructional group. For instance, Mellard and colleagues (2010) indicated that students in a small group get the benefits of the intervention if they show similar reading needs. On the other hand, some educators pointed out that group size does not matter if qualified teachers provide the reading instruction (Elbaum, Vaughn, Tejero, & Watson, 2000). In

comparison, a study by Vaughn, Wanzek, Wexler, Barth, Cirino, Fletcher, and Francis (2010) compared two groups, small and large, receiving reading intervention. The results of their study reflected that "[t]he main treatment effect was significant, $F (2, 446) = 69.5$, p\0.52, gp 2 = 0.003, and the effect sizes were 0.01 and 0.24 for large-group and small-group treatments, respectively" (p. 949). The study outcome showed that seventh and eighth-grade students who received the reading intervention in small groups gained higher achievement than students in large groups did. The authors suggested that providing reading instruction to struggling readers for a long duration is not enough; schools should provide the intervention via small groups. Furthermore, other educators confirmed that the most significant intervention is provided individually to struggling readers by specialists or teachers (Slavin, Lake, Davis, & Madden, 2011). Therefore, the group should be designed carefully to respond to students' needs.

By the same token, schools follow no specific duration to provide Tier 2 RTI to support struggling learners. The U.S. Department of Education reported that 80% to 97% of elementary schools applied a Tier 2 intervention at least three times a week to reduce reading problems (Balu, Zhu, Doolittle, Schiller, Jenkins, & Gersten, 2015). Ritchey (2012) found that struggling learners in fourth grade who received brief multicomponent reading intervention three times per week for 12 to 15 weeks performed significantly better than students who did not receive the intervention. Their performance was significantly better on the identification and application of comprehension strategies ($g = 0.56$) and on science knowledge ($g = 0.65$). In addition, 89% of sixth-grade students who received Tier 2 intervention gained a high score in the Texas Assessment of Knowledge and Skills after receiving a 26-week intervention for three days a week (Vaughn et al., 2010). However, kindergarten children who received a 30-minute intervention three times per week for 26 weeks did not improve in literacy skills (Catts et al., 2015). Similarly, children who received Tier 2 reading instruction an hour a day, four days a week for 27 weeks did not show a significant difference in their performance compared with kindergarten children not targeted by the intervention (Buckingham, Wheldall, & Beaman-Wheldall, 2014).

Although many students in first grade through fifth grade received a total of 150 minutes of reading intervention every day, 90 minutes of Tier 1 core reading instruction, and 60 minutes of small-group tier two interventions, they did not achieve adequate progress (Johnson & Boyd, 2013). Consequently, schools should check the fidelity of the intervention to determine if the instruction meets students' needs. Furthermore, teachers should monitor themselves during the intervention to ensure that they spend the intervention time developing the target skills. In fact, according to the observational and descriptive study results of Ciullo, Lembke, Carlisle, Thomas, Goodwin, and Judd (2016), teachers spent 265 out of 2,180 observed minutes (i.e., 12% of their time) doing logistical activities such as giving directions on procedures. It can be seen from this that the intervention length cannot determine the quality of intervention, and teachers should manage their time to make sure that they use it efficiently.

Tier 2 RTI contains a variety of approaches developed to teach struggling readers decoding, fluency, vocabulary, and comprehension. Instruction in this level may be limited to one aspect of reading (Jaeger, 2016). However, focusing on reading instruction depends on the students' level of reading. The instruction in kindergarten is designed to give children intensive training in phonological awareness, letter names, letter sounds, and alphabetic principles (Catts et al., 2015). Students in elementary school are trained in Tier 2 to develop their skills in vocabulary, decoding, fluency, comprehension, and phonological awareness (Fletcher et al., 2011; Johnson & Boyd, 2013; Vaughn & Fletcher, 2012). For advanced levels, educators arrange the reading skills to add challenging tasks that require combining repeated reading, generating questions (Therrien, Wickstrom, & Jones, 2006), decoding multisyllabic words, and participating in structured partner reading (Solis et al., 2014). These skills are taught to students using different materials and curriculums. Teachers can develop instruction units by using state curriculum standards (Ritchey et al., 2012), and they can also use the

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official reading curriculum, modifying it according to students' needs (Catts et al., 2015; Johnson & Boyd, 2013; Therrien et al., 2006). Furthermore, some educators provide reading instruction based on specific programs, such as Making Up Lost Time in Literacy (MultiLit), which is a successful intervention program used to teach poor readers basic reading skills in a small group (Buckingham et al., 2014). Indeed, students who received an hour of small-group reading instruction via MultiLit achieved above or close to the benchmark score (Reynolds, Wheldall, & Madelaine, 2007). The Reading Well program is also used to develop children's vocabulary, phonological awareness, alphabetic understanding, and decoding skills. Students can get greater benefits from this program if it is synchronized with frequent practice opportunities (Gunn, Smolkowski, & Vadasy, 2011). Some schools also rely on federal programs such as Reading First to enhance students' outcomes, and schools that apply this program consistently achieve higher rates of reading growth in informative measurement (Baker, Smolkowski, Smith, Fien, Kame'enui, & Beck, 2011). Finally, it is clear that there is no consistent pattern of developmental reading programs that schools follow to apply Tier 2 RTI. More future observational studies are required using student outcome data to describe the instruction delivery (Ciullo, et al, 2016).

Deciding on the suitability of the intervention for students' needs is a most sensitive component, and schools must address it by monitoring students' progress. The system to monitor progress is based on collecting data about students' responses in target skills to determine whether the students are progressing through the curriculum to meet long-term goals. The data are collected monthly and then presented visually in graphs to facilitate monitoring of the rate of students' progress (Stecker, Fuchs, & Fuchs, 2008). However, schools monitor the students' progress in different durations: two times in 27 weeks (Buckingham, 2014), three times during the year (Jaeger, 2016), five times every two months (Solis et al., 2012), and weekly (Johnson & Boyd, 2013). The collection tools mentioned in empirical studies used to follow students' achievements during RTI Tier 2 reading interventions are illustrated in Table 1. This procedure is essential in the RTI framework, as 87% to 100% of teachers reported that progress monitoring enables them to assess the effectiveness of intervention (Greenfield, Rinaldi, Proctor, and Cardarelli, 2010).

5. Professional Development to Support Tier 2 Reading Instruction

Since schools started to implement the RTI framework a decade ago to support struggling students, many questions have arisen about the quality of the implementation. Some schools gained great achievement from the implementation, while other schools found it hard to determine if the RTI made any improvement (O'Connor & Freeman, 2012). A high-quality implementation of reading instruction emerged from professional development to enable educators to implement the main components of RTI as a scientifically based intervention that can be used for ongoing assessment, progress monitoring, and decision making (Hughes & Dexter, 2011). However, the schools had limited results, regardless of the treatment's integrity. For example, three studies showed that although the implementation of Tier 2 RTI cost schools a lot of money, most of the students who received the intervention did not actually need it (Compton et al., 2010; Fuchs et al., 2011; L. Fuchs et al., 2012). Students' reading abilities were misdiagnosed, so students who did not need help were identified as having a strong or extreme need for intervention, leading the school to misuse resources (Fuchs et al., 2012). Thus, a persistent need of teachers is for high-quality professional development.

According to Kyndt, Gijbels, Grosemans, and Donche (2016), professional development refers to mandatory development activities that require teachers to attend courses, workshops, and training to develop their teaching skills. Schools should provide an environment that promotes sustainable development of teachers' skills, especially for special education teachers (Speck & Knipe, 2005). This enables them to identify struggling readers and use RTI as part of a comprehensive evaluation, which can be done by developing teacher networks and study groups (Danielson, Doolittle, & Bradley, 2007). In fact, students' achievements in reading are influenced by teachers' skills. Scanlon, Gelzheiser, Vellutino, Schatschneider, and Sweeney (2008) compared kindergarten children who had

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received RTI instruction from teachers who had not taken training programs with children taught by teachers who had taken a professional development program to increase their knowledge and skills in understanding students' needs and determining the proper technique, materials, and strategy to support struggling readers. Children who received reading instruction from teachers with professional development training showed a significant improvement in their reading skills, and the number of children identified as "at risk" was reduced by half — 35% to 17%. Therefore, future studies should consider students' outcomes as an important variable to judge the effect of professional development programs (Kratochwill, Volpiansky, Clements, & Ball, 2007).

To enhance reading instruction, reading specialists should work with general education teachers to plan the intervention, observe, and coach teachers to monitor students' progress and modify teaching instruction as required. This approach was applied by Tennessee reading specialists to give feedback to general education teachers (Walker, 2009). Developing cooperation is a basic requirement, and schools should make more effort to support it because, as Pellegrino, Weiss, and Regan (2015) reported, "teacher preparation programs have not done enough to address challenges and opportunities that come with increasing diversity in schools" (p. 188). In professional development, reading teachers adhere to an agenda to participate in different activities to evaluate their practices, develop professional materials, and plan to pass the challenges. In addition, they join enhancement workshops to develop their skills in implementing comprehension strategies, mixed ability groups, a variety of texts, strategies for good readers, visualizing, making predictions, making connections, asking questions, summarizing, and monitoring (Kennedy & Shiel, 2010). The cooperation between special education teachers and general education teachers is required for a successful application of RTI. However, published studies have not discussed how schools can foster and reward collaborative relationships in teaching in a higher education setting (Weiss, Pellegrino, Regan, & Mann, 2015).

Schools deliver the teacher-training program in different ways to enhance teachers' personal development. Ritchey et al. (2012) reported that teachers who use Tier 2 interventions participate in 20 hours of training, and some of them hold a master's degree. Pericola Case (2010) stated that reading teachers join training for 25 hours a month to gain special information about assessment and instructional procedures. Johnson and Boyd (2013) recommended that teachers receive instruction during the year from a professional coach. In another study, teachers were provided Tier 2 reading instruction after attending a two-day workshop on theoretical background and lesson-specific strategies (Catts et al., 2015). Through a professional development program, some schools give teachers more time for intensive training and use progress-monitoring measures for entering students' scores as web-based data (Waesche et al., 2011). Thus, training programs can assist teachers in developing their skills in using technology.

The training program can be organized by educators through steps leading teachers to gain target skills to enable them to work with students in Tier 2. An example are the steps applied by Therrien et al. (2006), which first provide teachers with a card describing the steps and key phrases in the intervention. The second step is to explain and model the intervention. The third step looks at conducting a mock teaching intervention. Additionally, Ryan, Kaffenberger, and Carroll (2011) emphasized that teachers who deliver Tier 2 intervention should receive special training to develop three main skills: monitoring students' progress, modifying instruction according to students' needs, and applying curriculum-based measurement. Above all, they develop the intervention based on different reading skills, including letter recognition, phoneme identification, letter blending and segmenting, rhyming, sight words, and fluency. In short, teachers should receive high-quality planned training. According to data collected by Dulaney (2013), teachers spent 16 hours to complete curriculum-based measurement, and they spent approximately 25 minutes with each student; thus, training is a critical task, and if schools do not pay attention to it, teachers will waste time making random attempts.

Professional development procedures guide educators in making decisions about students, and such decision-making is considered the core process in every RTI model. Greenfield et al. (2010) investigated the effects of professional development training on elementary school teachers' ability to make decisions about students: 50% of teachers reported that professional development training did not enable them to make decisions about students' English-language reading skills. The teachers could not distinguish if students' reading problems resulted from a lack of language or from learning disabilities. In addition, special and general education teachers maintained that they "don't know so much about Tier 2 intervention." Indeed, 50% could not determine if the Tier 2 reading instruction was appropriate for students, and they did not get the opportunity to engage in discussion about RTI or decision-making. Similarly, 26% of teachers said the professional development training they received was not efficient in supporting them in implementing RTI (Kratochwill et al., 2007). In contrast, Donnell and Gettinger (2015) claimed that a professional development training program can achieve target goals if it contains enough information about the theoretical foundation and the rational reasons for implementing RTI. In fact, this kind of program can positively change teachers' beliefs, thus influencing their satisfaction with their practices. Consequently, the best professional development programs are designed to enhance both teachers' skills and knowledge simultaneously.

6. Discussion

Supported by the belief that reading problems can be reduced with Tier 2 intervention, this literature review evaluated the effectiveness of implementing a Tier 2 reading intervention to support struggling readers. This review found three areas in which there was evidence: (a) an RTI framework supporting academic and behavioral outcomes, (b) the characteristics of Tier 2 reading instruction, and (c) professional development supporting the implementation of Tier 2 reading instruction.

Overall, this review found that Tier 2 of RTI supported students who had reading problems. In fact, the achievement gap between these students and their peers was clearly reduced. This tier of intervention is usually applied by qualified teachers who join professional development programs that enable them to implement evidence-based reading practices. However, schools take different approaches to implementing Tier 2 of RTI to support struggling readers in developing a variety of reading skills (Vaughn & Fletcher, 2012). In addition, students at this level of intervention receive reading instruction in groups of varied sizes and for different durations of time.

Reviewing the implications of Tier 2 reading instruction provided significant information for educators and schoolteachers. In general, teachers need to implement research-based practices to support struggling learners. As discussed above, this kind of intervention gives students with reading problems a chance to receive intensive intervention to reduce their reading problems. To achieve this goal, teachers should attend professional development programs to further develop their teaching knowledge and skills in order to support students by providing less restrictive environments. Ultimately, because schools implement Tier 2 reading instruction differently, future research is required to determine the best reading practices. Future research should investigate the characteristics of these practices to recommend a suitable duration and group size for the reading intervention, as well as to encourage teachers to select appropriate strategies and improve progress monitoring tools.

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Table 1. Progress Monitoring Tools

Author	Tools
Ritchey (2012) Therrien, Wickstrom, & Jones (2006)	Curriculum-Based Measurement
Fletcher et al. (2011)	The Continuous Monitoring of Early Reading Skills (CMERS) software program
Johnson & Boyd (2013)	Oral Reading Fluency Measures through AIMSweb https://aimswebtraining.pearson.com/
Catts, Nielsen, Bridges, Liu, & Bontempo (2015)	Letter Naming Fluency Initial Sound Fluency
Buckingham, Wheldall, & Beaman-Wheldall (2014)	The South Australian Spelling Test The Martin and Pratt Nonword Reading Test, and The Wheldall Assessment of Reading Lists Passages
Waesche, Schatschneider, Maner, Ahmed, & Wagner (2011)	Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency DIBELS Nonsense Word Fluency Peabody Picture Vocabulary Test
Solis, Ciullo, Vaughn, Pyle, Hassaram, & Leroux (2012)	Texas Assessment of Knowledge and Skills
Pericola Case, Speece, Silverman, Ritchey, Schatschneider, Cooper, & Jacobs (2010)	Woodcock Reading Mastery Test Word Attack and Word Identification Teacher Reading Rating Comprehensive Tests of Phonological Processing
Dufrene, Reisener, Olmi, Zoder-Martell, McNutt, & Horn, (2010)	Words Correct Per Minute (WCPM) and Errors Per Minute (EPM)

Note: The collection tools mentioned in empirical studies were used to monitor students' progress during RTI Tier 2 reading interventions.