

READING ASSESSMENT AND INSTRUCTION IN THE EARLY YEARS:
DIAGNOSING AND ADDRESSING EARLY READING PROBLEMS

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Abstract

The purpose of this thesis is to look at effective reading instruction and assessment in the early years of education to determine appropriate forms of assessment and practice for identifying struggling readers. Many American students are struggling with reading problems. According to the National Assessment of Educational Progress, only 31% of fourth graders in America were reading proficiently in 2005. To determine a potential cause of reading problems, particularly in comprehension, I look at what is considered to be best practice in teaching children to read. I then evaluate how elementary assessment, which relies heavily on fluency, can contribute to an overemphasis of fluency instruction. I argue this overemphasis of fluency instruction and lack of instruction in comprehension could be a cause of students' reading difficulties not being recognized until later grades. To avoid assessing students purely on fluency, I look at other forms of assessment, that include measures of comprehension assessment, which could provide a clearer picture of students' reading proficiency. I then examine intervention programs and practices that may be most appropriate for remediation. I argue interventions are best when they are tailored to the specific needs of the individual student, and so, schools should avoid purchasing packaged programs. Finally, I discuss a need for more research on seeing if there is a causal connection between a shift in practice to include more comprehension instruction in the early elementary years and fewer reading problems in the secondary years.

Introduction

In an era of high-stakes testing, it has become apparent that more and more students are struggling with reading, particularly reading comprehension. As a result, it is important educators are aware of effective reading strategies and appropriate interventions that can be used to ameliorate this problem. As much as 17 to 20% of children in America are struggling with significant reading disabilities. According to the National Assessment of Educational Progress, in 2005, 31% of fourth graders in America were considered to be reading proficiently. This number is incredibly low and shows the nature of this problem. More alarming is the statistics from the National Institute of Child Health and Human Development's 1998 report that shows 74% of third graders who are not able to read are still unable to read at the end of high school (Lyon, 2009). Many reading problems are not being identified until as late as fourth grade, or when students are in their middle school years, so it is important to identify what effective primary instruction in reading is, as well as how to intervene appropriately for students not reading proficiently. If these problems are not identified early on, there is a risk that students will not be able to receive appropriate support.

Elementary level reading assessment overemphasizes the role of fluency. As a result, instruction often centers around fluency instead of other necessary components of learning to read proficiently such as comprehension. As a result, students are at a disadvantage and many teachers are unprepared and unqualified to provide them with appropriate instruction and intervention. I argue comprehension assessment and instruction is necessary in elementary years in order to avoid students' reading problems going unnoticed. Georgiou, Das, and Hayward (2009) state reading comprehension assessment in early grades is mostly explained in terms of word reading skills. According to Georgiou et al., (2009) assessments are often standardized

and composed of multiple-choice questions, or may be as little as literal retellings of a text. These types of assessment provide little information on students' abilities to comprehend texts, and therefore, do little for practitioners in guiding instructional choices. As students progress through school, however, listening and reading comprehension increases in assessments with word reading skills decreasing. As this occurs, students with comprehension problems begin to be seen, though at this point they have been reading poorly for years and have developed poor reading strategies as a result. As assessments shift in the middle years to more comprehension based questions, more students, some of whom may be identified as strong readers by teachers and parents, are performing poorly.

The concern about students not reading proficiently and the problem being identified in secondary years is large. While it is clear many students' problems are being noticed in fourth grade, many others are not being recognized until seventh and eighth grade. It seems these problems would be identified earlier, but certain student behaviors can mask the problem. For example, some students maintain the appearance they can read. While these students are not trying to hide something, their strengths in fluency often overshadow their weaknesses or deficiencies in comprehension. In many cases, students are unaware they are having problems, and teachers are unaware of the problems as well since the students sound like they can read. These poor comprehenders are word callers, readers who have the ability to decode texts yet lack the ability to draw meaning from texts.

This problem is of specific importance for secondary teachers. As the problem is often identified during students' secondary years, it is the job of the middle and high school teacher to intervene and accommodate. However, since secondary teachers have little training in how to teach reading and comprehension, this problem is a particular challenge for them. Therefore, it

is important elementary teachers are able to assess and understand these problems when students are at an earlier age, so proper interventions can be put into place. In addition, teacher training and/or professional development will be necessary to prepare secondary teachers for teaching literacy in addition to content.

In this paper, the focus will be on those students who can be considered word callers. In order to develop an understanding of the problem, I will discuss the need to redefine reading proficiency, the consensus on effective reading instruction, and I will look at the role of fluency and comprehension instruction in elementary years. Then, I will discuss some assessments and frameworks that are used and those that may be more appropriate for getting a more accurate perception of students' reading proficiency. In addition, I will discuss how assessment data should be used to identify at-risk students to tailor instruction, what predictors of reading problems are, and forms of intervention that may be appropriate for these struggling readers. Finally, I will discuss the implications for future research and practice.

Defining Reading Proficiency

According to The Nation's Report Card, in 2009 only one-third of fourth graders performed at or above the proficient level in reading. In order to receive a proficient score, students must be able to demonstrate the ability to locate and recall information through recognizing supporting details and locating explicit information that explains a character's behavior. They must be able to integrate and interpret texts by making comparisons of character's changing feelings and comparisons between characters. They must also be able to critique and evaluate information by identifying the support provided for an author's opinion (National Center for Education Statistics, 2009).

There is a need to redefine reading proficiency in elementary years since so many students are being identified as having reading problems in their secondary years. This is happening because the nature of assessment shifts as students get older and many are unprepared for the different types of skills and measures these tests contain. Having a different understanding of what it means to be reading proficient is necessary in order for this problem to be prevented. Instruction and assessment must shift, so teachers can have a more accurate indication of students' reading proficiency and weaknesses. Based on traditional assessments of reading proficiency and the late discovery of reading problems, it is appropriate that our definition of reading proficiency is shifted to account for what has been overlooked.

Reading proficiency must be redefined to include all the components necessary to be a successful reader who can make meaning of both print and nonprint texts. According to the National Reading panel's 2000 report, reading is defined as consisting of the following behaviors: the ability to read real words in isolation and context, the ability to read pseudowords,

the ability to read text aloud and silently, and the ability to comprehend texts that have been read aloud or silently. Applegate, Applegate, and Modla (2009) argue reading should be defined as a thoughtful response to a text. Tovani (2000) suggests we define and assess reading in a way that not only accounts for the ability to read fluently but also the ability to ask questions when reading a text, make inferences, monitor comprehension, synthesize information, determine main ideas, and use strategies when meaning is lost. Without having a clearer understanding of all the components necessary to be a successful reader, teachers will not address all of them through instruction and the problem will continue.

For the purpose of this paper, reading proficiency will be defined as the ability to read fluently with correct intonation and prosody, to comprehend texts by determining main ideas, making inferences, drawing conclusions, making connections, and using reading strategies where necessary to make meaning. This definition shows both the importance of being able to decode text and read it fluently, and the ability to comprehend and reflect upon what has been read.

Effective Reading Instruction in the Early Years

In an effort to determine what good reading instruction in the elementary years is, I rely on the National Reading Panel's 2000 report and Slavin, Lake, Chambers, Cheung, and Davis' (2009) "Effective Reading Programs for the Elementary Grades: A Best Evidence Synthesis," among others. The National Reading Panel report of 2000 identifies all of the essential elements of effective reading instruction. The panel was led by Reid Lyon, and the report was developed by 14 individuals, parents, reading teachers, educational administrators, and leading scientists in reading research, charged by congress in collaboration with the National Institute of Child Health and Human Development to assess the status of reading research with the intent of uncovering what effective reading instruction in schools is. The panel came about when in 1997, Congress asked the National Institute of Child Health and Development to determine what the best practices are in teaching children to read. They wanted a panel to look at the different strategies used to teach reading and see what research has found in reference to the effectiveness of these strategies. The intent was to be able to produce a synthesis of best practice in a report that would be easily accessible to educators and policy makers alike, so it could be useful in determining the best approaches to teaching reading. In initial evaluation of the existing data, they decided to focus their study on the following subtopics: alphabets, fluency, comprehension, teacher education and reading instruction, and computer technology and reading instruction. Within the subtopic of alphabets is phonemic awareness instruction and phonics instruction. Within the subtopic of comprehension are vocabulary instruction, text comprehension instruction, and teacher preparation and comprehension strategies instruction. The panel looked at each subtopic with the question of whether instruction in that area could

improve reading achievement and how the instruction would best be provided (National Reading Panel, 2000).

The panel found instruction in phonemic awareness improves reading more than reading instruction that does not include a component of phonemic awareness. The authors note that phonemic awareness instruction alone is not sufficient in teaching reading; however, phonemic awareness instruction has shown to improve students' ability to read and spell. Approximately 5-18 hours of instruction per week should be dedicated to phonemic awareness instruction where students are taught to segment and blend phonemic sounds. Also, students could manipulate letters while segmenting and blending phonemic sounds in spoken syllables and words. Of particular importance is focusing on one or two types of phoneme manipulations and not multiple types. In addition, this form of instruction was found to be best when performed in small groups (National Reading Panel, 2000). It is imperative that students learn spoken words are segmented into sounds and those sounds can be broken up into letters on the page. In addition, they must learn that written words have the same number and sequence of sounds as the spoken word in order to see the connection between spoken and written language (Lyon, 2009).

The National Reading Panel (2000) found systematic phonics instruction to enhance students' ability to read more so than a program that does not contain phonics instruction. It is also most effective in the early years of kindergarten and first grade. Phonics instruction has shown a greater ability to decode and spell in first grade students. Synthetic phonics instruction, where students are specifically taught to convert letters into sounds and then blend those sounds to form recognizable words, has shown to have a positive effect on disabled readers' reading skills. It has also shown to be effective with students of low socioeconomic backgrounds due to the focus on initial reading skills.

According to the National Reading Panel (2000) Report, fluency instruction is often overlooked but is important in helping students develop their ability to read. Two strategies are typically used in schools to increase reading fluency. They are repeated guided oral reading and independent reading. The national reading panel found that while guided oral reading instruction proved to have a positive impact on word recognition, fluency, and comprehension, there were no causal links between independent reading and a student's ability to read fluently. The panel recommends that fluency instruction not be neglected as it has traditionally been.

Comprehension instruction is critical to reading instruction because comprehension is the "essence of reading" (National Reading Panel, 2000, p.13). Comprehension involves a person's ability to activate her prior knowledge about a subject or topic in order to relate with the topic, and her ability to internally summarize what has been read, and to make predictions while reading. In addition, a person is able to comprehend best when she already has rich oral comprehension, or knowledge of oral vocabulary (Lyon, 2009). According to the National Reading Panel (2000) report, comprehension instruction includes three critical aspects that can lead to the development of reading comprehension: vocabulary development and instruction, interaction between the reader and the text, and the ability of teachers to provide students with effective comprehension strategies.

The panel found instruction in vocabulary does lead to increased comprehension. Of particular importance is their finding that relying on one type of vocabulary strategy or instruction is not sufficient for students to develop comprehension. Instead, different strategies and approaches must be used such as, teaching vocabulary both directly and indirectly, preparing students before texts with teaching words that may be unfamiliar, substituting challenging words

in texts with easier words for low-achieving students, and repeatedly exposing students to words in various contexts (National Reading Panel, 2000).

The panel also found text comprehension instruction is effective when teachers use different strategies to help students develop comprehension. Seven strategies have been found to be most effective in assisting in comprehension. They are comprehension monitoring, cooperative learning, use of graphic or semantic organizers, question answering, question generation, story structure, and summarization. Comprehension monitoring is a strategy used to help students develop their own sense of whether or not they have comprehended what they have read, thereby monitoring their progress. Cooperative learning encourages students to use reading strategies together as they read a text in groups. Graphic and semantic maps encourage students to draw their understanding of a text. Question answering is when a teacher provides specific questions about a text to determine if students have understood what has been explicitly stated. Question generation allows for students to develop their own questions in response to a text. Story structure encourages students to use the structure of the story itself to determine the order of events in the story to answer questions about the text. Finally, summarization requires that students identify the main ideas and details from a text to ensure understanding of the main points (National Reading Panel, 2000).

In teacher preparation and comprehension strategies instruction the panel found two major instructional approaches are effective: direct explanation and transactional strategy instruction. Direct explanation refers to an approach where teachers are able to articulate to students how reading is a problem solving activity where the use of strategic thinking is necessary, and so, students must learn to think strategically about what they are reading in order to obtain meaning. Therefore, finding a main idea of a text should be approached as a problem

solving endeavor. The transactional strategy instruction approach refers to the teacher's ability to explain the thinking processes one goes through when reading, to the students. In this process, teachers must facilitate discussions amongst students to allow them to come to a deeper understanding of a text (National Reading Panel, 2000).

In order for these two strategies to be utilized effectively, teachers must be trained to use them appropriately. The panel finds that this would be done best if it occurred during teachers' preservice years (National Reading Panel, 2000). The research compiled by the National Reading Panel's report can be helpful to schools when designing curriculum and instruction. A focus on each of these elements of reading instruction can help schools ensure they are providing students with the necessary tools to become proficient readers.

Slavin et al., (2009) evaluated nonremedial reading programs for elementary readers to provide educators with information about the best reading programs available. Robert Slavin is both a researcher and one of the founders of the reading program, Success for All. In their study, they found a commonality within successful reading programs is when the programs provide teachers with extensive professional development, including follow-up on implementation of teaching methods. Two additional key components of successful programs is a focus on cooperative learning and phonics instruction. Programs that have shown to be effective and include cooperative learning are PALS, Success for All, Classwide Peer Tutoring, and Reading Reels. Successful programs that include phonics instruction are Reading Reels, Open Court Phonics Kits, Scholastic Phonics Readers with Literacy Place, Success for All, RAILS, Phonics-Based Reading, Direct Instruction, and PALS. All of these programs showed to have positive effects in decoding and comprehension. Of particular importance however, is while phonics

instruction is important in elementary level instruction, they argue it is not sufficient in itself to create reading achievement gains.

The Role of Fluency Instruction and Assessment

An interest in fluency, and a resurgence of fluency instruction, relates back to the National Reading Panel's 2000 report. With fluency being one of the five pillars of reading as defined by the report, more interest in fluency has emerged, along with an increase in fluency based practices. A prominent theory often cited in fluency research and fluency instructional practice is La Berge and Samuels' (1974) theory that suggests reading requires two tasks, word recognition and comprehension. According to this theory, strength in word recognition skills naturally lends itself to an ability to comprehend as resources in the mind are freed up. This theory has been prominent in education and has largely influenced the role of fluency and comprehension instruction, or lack thereof, in the classroom. La Berge and Samuels focus on teaching reading through the basic subskills that will lead to fluent decoding; however, there is no attempt at creating instruction around comprehension. This is because they argue there should be some distinguishment between the ability to comprehend word meaning and the organization of word meaning. They believe comprehension is not in the individual word meaning but the organization of word meanings. The ability to make meaning of the whole sentence is possible because of the individual's ability to read with automaticity and their knowledge of the individual words' meaning in their automatic memory. In other words, when students are able to decode successfully and they possess knowledge of word meaning, they will be able to comprehend the text because they have automatically processed word meaning and their attention is not focused on decoding thereby freeing up resources to focus on comprehension. Therefore, due to this belief that comprehension will naturally develop as students become more fluent readers, instruction of comprehension is often minimal. However, as a result, many reading instruction programs and assessments operate on this philosophy, and

so, they focus heavily on the importance of learning to decode and read fluently. It is important to note that while fluency instruction is important and necessary for the ability to read proficiently, some of the unnoticed reading problems of students may be due to an overemphasis of fluency instruction in grades 1 and 2 that can be attributed to an overemphasis of fluency assessment.

Baker et al., (2008) evaluate whether Oral Reading Fluency, ORF, can be a strong predictor of who is on track for successful reading achievement and who may be struggling. Their study is based on the assumption that La Berge and Samuels' (1974) theory is accurate, and so, they look at how schools that implement ORF can predict successful reading achievement. The results of their study show ORF can be used for schools to gauge student growth in fluency over the years as well as other skills that are a part of reading proficiency. They believe their results support the use of ORF in Reading First programs.

The study particularly focuses on the use of ORF as “an index of reading proficiency and as a measure of student progress over time in the context of Reading First in Oregon.” ORF is measured by the amount of words correct per minute. Students will read short passage sets that are on grade level and their performance will be assessed on how many words they pronounce correctly in one minute. They found strongest evidence of ORF predicting reading performance in grades 1 and 2. In grade 3 the nature of the state tests change and ORF becomes less of a predictor of student reading performance. They attribute this to the grade 3 test having more extended response items and other questions that are not “strictly reading measures” (Baker et al., 2008, p.20) or that the tests may be less reliable at this point. In addition, they also attribute this to the possibility that the nature of reading development may be different between grades 2 and 3 and during this time the ability for reading fluency to provide an overall index of reading

proficiency may diminish. So, as the grades go up, ORF is not as strong of a predictor of reading proficiency. Unfortunately, there is little effort on their part to determine the weaknesses of ORF in measuring reading proficiency and instead they focus on potential weaknesses in the grade 3 test or changes in the development of reading ability. If the reason were to be due to changes of reading ability or development between grades 2 and 3, then there would need to be research into how students' development changes during this period and what type of instruction is necessary to support these changes; however, this seems to be overlooked.

The results of this study are important because it shows how the authors are looking at the results of how ORF is influencing reading fluency growth overtime, specifically in grades 1, 2, and 3 without looking at reading proficiency growth overtime which is the actual purpose of reading instruction. They note the ORF slope can be a good predictor of reading fluency performance in grades 1 and 2 but overlook how the use of it can contribute to the lack of attention paid to reading comprehension instruction and assessment. By going off of La Berge and Samuel's (1974) theory that comprehension will just naturally develop, an implicit argument is being made that comprehension instruction may not be necessary since it can develop on its own with good fluency instruction. However, the results of the study contradict this when it is clear that ORF is only a predictor up until grade 2. Also, the assumption is made that increased growth in ORF is associated with real reading growth, though there is no assessment of this, just an assumption (Baker et al., 2008). An assumption is not strong enough to base educational decisions on with no data to support it, so the argument for ORF is not strong.

In addition, they discuss how ORF can be used to predict comprehensive measures of reading for initial levels of performance but no studies link it to performance on high stakes measures of reading performance. So this practice is being used by educators but there is no

evidence it has any effect after the primary grades. They argue ORF can be successful for identifying who is struggling with reading achievement and it can gauge how well students are going to develop their reading fluency skills and others skills that are apart of reading proficiency; however, they do not specify what these other skills are nor is there a place for assessing the development of these other skills within this form of assessment. This type of instruction and assessment is what contributes to the problem of students' reading difficulties not being identified until later grades because models like this do not evaluate students on all of the necessary components of being able to read proficiently.

DIBELS is another popular form of oral reading fluency assessment. So, an analysis of the validity of DIBELS is warranted. Many researchers have questioned the reliability of the results of DIBELS and have found little predictive value in students' ability to read and comprehend authentic reading material, or their ability to read proficiently as assessed by standardized testing. Shelton, Altwerger, and Jordan (2009) set out to determine the consequences to teachers and students of using DIBELS in a typical classroom. The purpose of their study was to see if DIBELS scores are a reliable predictor of students' reading accuracy and prosody in reading authentic children's books and if the scores can be a predictor of students' ability to comprehend these books. According to the philosophy of DIBELS Oral Reading Fluency, DORF, the score is a valid predictor of students' reading ability and therefore, this score can be used to identify students who need additional instructional support and can be used by teachers to monitor students' progress in instructional goals.

The DORF test consists of two components. First, students are to read from a passage set for one minute and are instructed by the assessor when to begin and stop. As the student reads, the assessor marks any words the student mispronounces, omits, or reads out of order, or

any abbreviations read incorrectly. Before the reading begins, the assessor informs students they may be asked what the passage is about at the end of the reading. Students are also encouraged to “do your best reading” (Shelton et al., 2009, p.141). Once the test is administered, the data is collected by the assessor marking on the passage where the student has a miscue for a particular word. If a student struggles with a word, he is provided with three seconds before the assessor pronounces the word for him. After the student has read, the assessor will ask the student to retell what occurred in the passage which is known as RTF, or retelling fluency. Comprehension of the passage is assessed by numerical values given to the reader’s ability to recall the events of the story, character names, make inferences, and her overall understanding of the story. The focus is largely on students’ ability to repeat the words used in the passage.

RTF was added to the DIBELS assessment in order to provide teachers with “face value.” The intent is for teachers to feel more comfortable about the administration of the test. Because its intent is “face value,” it is designed to make teachers feel like the test is measuring what it appears to be measuring; however, it is not actually providing evidence of comprehension. Therefore, the expectation of the results of RTF are not so much to provide evidence of comprehension, but to provide teachers with the opportunity to see if they feel like comprehension is evident. In addition, this portion of the test is considered to be optional. It is worthy to note this is the only component of the DIBELS assessment intended to measure comprehension and not only is it optional, but it is also not designed to be a true measure of evidence of comprehension (Shelton et al., 2009).

The results of the study showed discrepancies between the rate at which students read the DORF passages and the rate in which they read authentic children’s books. Students were reading the authentic children’s books at a lower rate than the DORF passages. The DORF

passage scores identified 10 of the 14 readers to be “low risk.” However, according to the data of the authentic children’s books, 10 out of the 14 students would be considered to be “high risk” or “some risk” and therefore, would need additional instruction. The researchers are not suggesting the students are actually poorer readers than they appear to be, but that their scores are lower when reading authentic literature because when reading this they are reading slower since they are also reading for comprehension. Therefore, the students are more likely to slow down as they read because they are making an effort to make meaning from the text. They also found students who scored the highest on the DORF were not necessarily the best readers in the class, nor were those who scored the lowest the worst readers. In addition, those students who read faster were not necessarily considered to be better at comprehension (Shelton et al., 2009).

The results of this study raise several concerns. First, if teachers are using the results of this data to form groups of readers and plan instruction, the data may not be supporting them in their efforts to provide students with appropriate needed instruction and/or interventions. Since the fastest readers were not always the best comprehenders, their problem could continue to be unnoticed as they are placed in higher level reading groups that do not receive comprehension support. This also could be a problem because the slower readers may have been stronger in comprehension and the additional instruction they receive may not be necessary. Second, the lack of a strong comprehension assessment allows for students who are word callers to continue to be unnoticed. This is especially true for those schools who decide not to include the retelling of the text component.

In addition to the concerns of the validity of the data, there is an additional concern about the National Institute for Literacy having a possible bias in the DIBELS program and violating the Department of Education Organization Act. It was found that there were possible violations

of the grant approval process with officials and consultants in the Reading First initiative having financial ties to DIBELS. This is a cause for concern since 39 of 45 Reading First programs use DIBELS as one of their forms of assessment in addition to the numerous districts and schools that use it. Independent research into the validity of DIBELS shows that the “scientific evidence” or reliability and validity of DIBELS is considered to be insufficient according to the provisions put out by the No Child Left Behind Act. Therefore, there is a serious need to look further into the value of an assessment such as DIBELS (Shelton et al., 2009).

It is important to note fluency instruction is important but should not be used as the sole means of instructing for or assessing reading proficiency. Fluency instruction has great value, particularly as students progress into the secondary years. Based off of the findings of much of the research on fluency assessment, often done with one-minute fluency measures, it is clear the definition of fluency may need to be expanded in order for it to provide instructors with more usable data to determine students’ reading difficulties.

Deeney (2010) discusses a common fluency definition and the definition of a fluent reader. She proposes the definition of a fluent reader contain both what fluency is and what reading proficiency consists of. The definition of fluency, which is commonly used in assessments like DIBELS, is “freedom from word-identification problems that might hinder comprehension” (Deeney, 2010, p.440). However, a fluent reader is “any person who reads smoothly, without hesitation, and with comprehension” (Deeney, 2010, p.440). So often comprehension is overlooked, and so, the assessment data from oral fluency measures tends to omit information about students who are struggling with text understanding. This definition is what should be used by educators when trying to identify students’ reading performance because it includes the understanding that fluency is about accuracy, rate, prosody, and comprehension.

Accuracy is important for students to be proficient readers. Comprehension will not happen if students are unable to read words accurately. Critical words misread, or a large percentage of words misread, in passages can cause students to miscomprehend what they are reading. Therefore, it is crucial to assess accuracy in reading fluency. In addition, the rate of reading is important as well. While La Berge & Samuels' theory (1974) that fluency frees up resources in the brain for comprehension may not account for all, it is true that if resources are not freed up, due to behaviors such as reading at a slow rate, there will be no resources for comprehension. So even though reading rate does not translate into comprehension, it is important for a student to be able to comprehend. Also, prosody is important as it is linked to comprehension. While the relationship is unclear, students with good prosody often comprehend better, possibly because of their ability to understand what they are reading due to their ability to use proper intonation and pick up on uses of syntax and punctuation within a text. Therefore, looking at prosody when assessing fluency is important as it may provide more information into whether a student is comprehending a text (Deeney, 2010).

In conclusion, if fluency is the popular approach to assessing reading proficiency, the definition of fluency must be expanded to account for more than accuracy and rate which is often what assessments like DIBELS and other words correct per minute assessments measure. In order for educators to have realistic data about student performance and have ways of identifying student difficulty in order to plan and adjust instruction, fluency assessment must account for comprehension. There is a danger in relying solely on data from words correct per minute assessments because it can lead to inaccurate assessments of comprehension difficulties (Wooley, 2008). Rather than abandoning fluency assessments altogether, there is a need for a comprehension component to be incorporated in the assessment. Word callers will continue to

go by unnoticed if an effort is not made to determine true reading proficiency levels (Deeney, 2010).

Comprehension Instruction

Comprehension instruction is lacking in the elementary years and it is clear that this component must be added to reading instruction. It is important to note what comprehension instruction is and what it should look like. As much research and interest circulates around comprehension and intervening early for students with comprehension problems, much research also focuses on strategies that can be used to both increase comprehension through interventions and how to implement comprehension instruction in early years. Because so many students' comprehension problems are being identified in the middle years of their education, knowledge of strategies and interventions is extremely pertinent to the secondary education teacher. Secondary teachers often struggle with students who have either poor comprehension or low reading levels because in most cases they are not trained to teach students to read but to teach students who read.

Instruction in reading strategies has shown to improve reading comprehension. However, there may be a need to differentiate strategy use amongst age groups. Reading is an ongoing process, and so, while it is important that elementary instruction includes more comprehension instruction and assessment, it is also necessary for secondary instruction to continue the implementation of comprehension instruction. This instruction may vary by grade level though. Cantrell, Almasi, Carter, Rintaamaa, and Madden (2010) found comprehension strategy instruction to be beneficial for students in the sixth grade, though no marked improvement was found for those in the ninth grade. The instruction they provided consisted of teaching students the following comprehension strategies: word identification and vocabulary strategies, visualizing, paraphrasing, self-questioning, and sentence writing. They found sixth grade students to improve in overall reading comprehension in comparison to the control group,

although ninth grade students did not improve. Initial assumption may be that it is too late for ninth grades students; however, Cantrell et al., suggest these students may have already developed these strategies and need some other form of instruction to aid them in comprehension. They argue these students need more instruction in inferences and accessing and applying prior knowledge and experiences.

McKeown, Beck, and Blake (2009) look at two comprehension approaches, strategies approach and content approach, to determine the most effective way to teach comprehension. Strategy approach focuses on directly teaching reading strategies like summarizing, making predictions, making inferences, and generating questions. Content approach focuses on making meaning from the text content itself. They found the content approach to have more positive outcomes in comprehension. This is believed to be due to students focusing solely on the meaning of the content rather than first, the best strategy to use, and then, the content itself. They argue teaching students to go directly for meaning, instead of indirectly for meaning through strategy use, is more effective. They also suggest teachers use discussion through reading both to aid students in their understanding of texts but also to provide a model of the comprehension process. In addition, observing student discussions will allow teachers to have more insight into how students are comprehending and which students are struggling and will need additional support or intervention. While they argue content approaches may be more appropriate they do think instruction of skills such as summarizing, making inferences, and making predictions should be done with shorter texts. They argue this will allow teachers to use those terms when discussing larger texts and teachers can point out to students when they have created a summary or made an inference or prediction.

McKeown et al., (2009) also discuss the importance of before during and after reading activities when reading a text. Of particular importance is how teachers can aid students in comprehension by setting up a purpose for reading a text and forming instruction around unfamiliar vocabulary before reading the text. This vocabulary instruction should not be as simple as providing students with a list of definitions, but instead should require students to make meaningful associations with the words before reading the text. During reading, teachers should stop and have discussions around questions that will aid in their understanding of the text. After reading, questions should be provided that focus on the essential details of the text, and also questions that require higher level responses.

Assessments and Frameworks for Determining Reading Proficiency

The role of assessments in defining students' reading proficiency is crucial since many students' reading deficiencies are not noticed until their secondary years. It is imperative that the quality of assessments and the accuracy of assessment data be analyzed. Of particular importance are what skills schools are assessing in the early years to determine reading proficiency and what assessments are being used. In addition, it is relevant to note which assessments and frameworks may be most useful for teachers.

A need for stronger comprehension based assessments is necessary in order to get a true perception of students' reading proficiency. Research suggests that in some cases, teachers are overestimating the amount of word callers they believe to be in their classrooms (Meisinger, Bradley, Schwanenflugel, & Kuhn, 2010). This could be a problem in identifying who needs intervention for reading difficulties and what types of intervention they will need, therefore creating an additional need for comprehension assessment measures. In their study, Meisinger et al., sought to determine how teachers perceive students' comprehension problems and whether there is a tendency for teachers to assume there are more word callers in the classroom than there actually are. They began by assessing teachers' definitions of both word callers and fluency. They consider word callers to be "children who efficiently decode words but do so without commensurate comprehension taking place" (Meisinger et al., 2010, p.55). After surveying teachers, they found 41.9% of the teachers in the sample to have the same definition for word callers. The other teachers interpreted word-callers as dysfluent readers, 25.8%, and poor readers, 22.6%. There is a concern that there is not a common understanding of what it means to be a word caller. In addition, teachers were not all in agreement about what comprehension means. Only 58.1% of the teachers conceived of comprehension as being not only the capability

to understand texts but also the ability to make connections, monitor what you are reading, and summarize or retell the story. This data shows a true need for more common definitions around comprehension and word calling to ensure that teachers are able to get a more accurate understanding of a student's reading proficiency.

The results of the study did show that teachers were overestimating the amount of word callers in the classroom. However, a limitation of this study is that this generalization of teachers overnominating students as word callers may only apply to similar samples of teachers. Also, research shows word callers are less common in the early elementary grades which is who was assessed in this study. The problem of word callers is more prevalent in the upper elementary grades and middle school years showing that the nature of current assessments is not allowing for the identification of word callers to occur until this point. It seems strange that the word calling habit would develop in the later grades; instead, it is more likely that the nature of early elementary assessments is not providing the type of data needed to determine who is a word caller or who will be at risk for becoming a word caller (Meisinger et al., 2010). This shows that accurate assessments of comprehension are needed both to ensure poor comprehenders are not going unnoticed and students with reading difficulties are not assumed to be word callers if they are not, so appropriate interventions can be provided for students' individual needs.

Valencia, Smith, Reece, Wixson, and Newman (2010) look at early level assessment of reading and investigated the validity of using words correct per minute, wcpm, as an accurate indicator of determining oral reading fluency and identifying students at risk of reading problems and failures. The reason for studying if wcpm is an accurate indicator of oral reading fluency is that many schools use this form of assessment in kindergarten and first grade when evaluating

students' reading skills. They report that a review of 45 of the Reading First¹ plans on the internet shows that 39 plans use Dynamic Indicators of Basic Early Literacy Skills (DIBELS), 11 use Texas Primary Reading Inventory (TPRI), and 5 use Phonological Awareness Literacy Survey (PALS). All of these tests include a component designed to measure students' oral reading fluency and this is assessed by wcpm. The concern about this is many states and schools are merely assessing oral reading fluency as the ability to read a certain percentage of wcpm and this has left the assessment of comprehension out. A direct result of using this form of assessment is that it shifts the nature of instruction, so instruction relies heavily on reading a certain percentage of wcpm which contributes to the problem of students' comprehension difficulties not being recognized until secondary years. In addition, preparing students for tests may rely too heavily on students being able to read faster in shorter periods of time opposed to focusing on reading for understanding. The problem is that many believe assessing oral reading fluency is the same as assessing comprehension.

In their research on oral reading fluency, Valencia et al., (2010) found that wcpm scores do not provide the data that is necessary to make good instructional decisions about students since so many students were misidentified in their assessments. In their study a substantial number of students who performed poorly on the Iowa Test of Basic Skills (ITBS) were not identified as a reading risk according to wcpm assessments. Their data shows that of the students who were misidentified in the wcpm assessments, 30-70% demonstrated difficulty with reading comprehension. In addition, if the interventions these students received were about increasing

¹ Reading First is a program by the Federal Government that focuses on using proven methods of early reading instruction in classes. States and schools can apply for aid from this program to implement research proven instruction and/or assessments in the classroom to make sure students are able to read by the end of third grade.

their wcpm, then approximately 50% of them would not receive the comprehension or prosody instruction they need to improve.

Therefore, they conclude that a reading assessment must not only assess the rate of fluency alone but accuracy, prosody, and passage comprehension as well. This contributes to a better understanding of a student's ability to read, or lack thereof. Their assessment required students to read for a longer period of time and they used passages that were both longer and more complex to require students to engage in comprehension. They then followed this with more textually explicit and implicit questions. They found that this form of assessment provided more data on students' ability to read fluently and comprehend texts. This data is also more useful for informing teachers about continuing instruction, interventions, and assessment for those students who have reading difficulties or failure. If this emphasis on instruction of rate, accuracy, prosody, and comprehension is performed in the early elementary years like suggested, then in the secondary years the focus can be on comprehension and prosody as the secondary year assessments often focus more heavily on comprehension (Valencia et al., 2010).

A concern that arises out of this form of instruction and assessment is how many students are being falsely identified as having reading difficulties when they do not, or worse those who have reading difficulties that are not being recognized. Having students read aloud for one minute to determine wcpm is not sufficient time to truly assess students' reading abilities. Only some students with obvious reading difficulties will be identified and many will continue to be unnoticed (Valencia et al., 2010). Therefore, there is a need to determine what forms of comprehension assessments are available to have a clearer picture of students' reading proficiency.

Assessments that rely too heavily on fluency and decoding provide little information about a student's reading proficiency because without comprehension, reading is not taking place. Elementary reading assessments must include comprehension components. In the past, reading assessments relied heavily on decoding skills since students must be able to decode before they are able to comprehend. In addition, a student's inability to decode is easier to identify than a comprehension problem. As a result, an overemphasis on decoding assessment may have contributed to comprehension problems not being noticed. It is important to have reliable data on student performance in the early years since comprehension problems can lead to school failure. Therefore, there is a need to determine what assessments are available to identify whether a student comprehends a text. However, it is important to note that not all comprehension tests measure the same thing, and therefore, educators should be aware of the assessments they provide and what those assessments are good at measuring. (Keenan, Betjemann, & Olson, 2008)

Keenen et al., 2008 looked at four different comprehension assessments commonly used in schools to determine if what is being called comprehension varies based on the different tests used. They looked at the following forms of assessment: The Gray Oral Reading Test-3 (GORT), the Qualitative Reading Inventory-3 (QRI), The Woodcock-Johnson Passage Comprehension subtest, and the Reading Comprehension subtest from the Peabody Individual Assessment Test (PIAT). They found that these tests did differ on what they were measuring and concluded that not all reading comprehension tests are measuring the same thing. Therefore, they are not necessarily providing valuable data because comprehension is a complex process that involves multiple component skills (Keenan et al., 2008).

Of the four tests researched, Keenan et al., (2008) found two of the tests, the Woodcock-Johnson Passage Comprehension subtest and the PIAT, measure decoding skills, the GORT assesses a student's background knowledge, and the QRI-3 may be effective in assessing comprehension. Like all of the tests studied, the PIAT is designed to assess comprehension. However, the test does not actually assess comprehension because it uses pictures to see if a student has comprehended a sentence. The student is to read a sentence and is then presented with four pictures that could reflect the meaning of the sentence. The pictures vary by changing one or two words from the sentence. For example, the word patients may be changed to parents, thereby changing what the picture would be. As a result, the assessment becomes more about students' ability to decode particular words and less on their ability to comprehend since the confusion of one word could change the meaning of the sentence and therefore the picture.

A similar problem is noticed in the Woodcock-Johnson Passage Comprehension subtest. In this test, students are provided with two sentences with the second sentence having a blank they must fill in based off of the first sentence. The way the sentences are arranged makes the assessment more about the ability to decode a particular word in the first sentence than their ability to comprehend the meaning of the sentences. Again, the assessment is relying on decoding over comprehending. The reason for this emphasis on decoding over comprehension could be attributed to the use of such short passages. Misunderstanding one word in a short passage could have a much larger effect on comprehension than a longer passage where additional context could allow a student to make meaning even if they did not understand a particular word. There is a danger in relying on data from tests like these because the data could be unreliable and may hide a student's comprehension problems, or it may look like a student who is not struggling with comprehension is (Keenan et al., 2008).

The GORT assessment assesses a student's background knowledge more than his ability to comprehend. The authors found the test questions could be answered without reading the passages, thereby making comprehension assessment data unreliable. In the GORT assessment, the examiner reads the questions to the student and it was found that without reading the passage, students could still answer the questions accurately above the normal chances of being able to do so. As a result, not only could it go unnoticed if a student is poor in comprehension, but poor decoders could actually do well too, thereby hiding their reading problems as well (Keenan et al., 2008).

On the other hand, the QRI-3 did show to be effective in measuring comprehension and this may be attributed to the use of longer passages (Keenan et al., 2008). With the ability to use context clues to determine the meaning of potentially unfamiliar words, students have a better opportunity to display their ability to comprehend.

An additional comprehension assessment that is used predominantly in Australia and England is the Neale Analysis of Reading Ability (NARA). This assessment measures reading accuracy, reading rate, and comprehension. The test is composed of short narratives and students are required to read the stories and orally answer comprehension questions for each passage. While this test does include comprehension, research has shown that the comprehension component of the assessment provides results that are less reliable than the measures for reading accuracy. So, while it may provide some information about students' ability to comprehend, the limitations of the assessment should be kept in mind (Wooley, 2008).

Cain and Oakhill (2006) looked at the NARA and other forms of measuring and assessing comprehension to determine if the NARA could be considered a valuable assessment. While

they recognize some limitations to this assessment, they found the NARA can be an effective tool to assess word reading accuracy and reading comprehension if administered properly. They looked at various ways of assessing comprehension such as the use of true/false questions, cloze assessments, sentence variation assessments, multiple choice responses, and open-ended questions. They found that there are strengths and limitations to the different types of comprehension assessment measures and there is no “optimum way to tap an individual’s understanding of a text” (Cain & Oakhill, 2006, p.705).

Cloze assessments, where students are required to fill in the blank of a sentence, where 3-5 replacement word options are usually provided, are dependent on students’ word reading skills. This can be a limitation of the assessment if a student has weak word reading skills but not necessarily poor comprehension. True/false is good for measuring details and fact retention; though, it does not allow for assessing inference making. Sentence variation tasks, which are similar to true/false assessments, require a yes/no response to about 12-16 sentences that paraphrase original sentences from the passage or sentences that change the meaning of the text. The advantage to this type of assessment is it is easy to determine the proportion of correct responses; however, it takes time to make the test sensitive and there are no standardized tests that include this type of comprehension measure. Multiple choice tests require more of students than yes/no, true/false tests since the answer choices must be compared. This type of testing is good for administering in group format. The limitation would be that because the choices are provided, students may select an answer that is a good inference for the text; however, that does not mean they have comprehended the text well enough to make the inference themselves. That is where the benefit of open-ended assessments is. Open-ended questions allow students to demonstrate their comprehension and ability to make inferences about a text. The disadvantage

of this type of assessment is it can lead to underestimating the comprehension ability of students who have expressive language difficulties. Overall though, Cain and Oakhill (2006) concluded NARA may be a good option because empirical data has proven NARA to be effective in detecting comprehension deficits. NARA has an open-ended section which allows for the test to assess more than basic fact retention.

The simple view of reading has been suggested to be an adequate framework for assessing reading proficiency. It can also be used to understand the necessary components of reading instruction. While fluency instruction alone does not necessarily lead to the ability to comprehend, Gough and Tunmer (1986) argue decoding is a necessary component of reading in order for print to be translated into language. Comprehension, also not sufficient on its own, must be included as well. In defining reading, they look at the simple view of reading where reading equals the product of decoding and comprehension, or $R = D \times C$. Based on this view, reading proficiency should be predictable based on one's decoding skills and comprehension. Gough and Tunmer reason that a deficiency in reading is either related to a deficiency in decoding or in comprehension.

Much debate surrounds the simple view of reading. Catts, Adlof, and Weismer (2006) tested the simple view of reading in their study to see if it could be more informative in determining students' strengths and weaknesses in decoding/word recognition and comprehension than a classification system that solely focuses on either the former or the latter. In their longitudinal study they looked at the language abilities of students with specific reading comprehension deficits and decoding difficulties, in comparison to typical readers. The study was done at the eighth grade level and was compared to the samples past decoding and comprehension scores in kindergarten, second, and fourth grade. Based on the different ways reading comprehension is

assessed in early grades and later grades, such as middle school, the authors predicted students who may be considered poor comprehenders in the eighth grade were probably not identified as so in earlier grades. They found this prediction to be accurate, reinforcing their belief that a classification system based on the simple view of reading would be appropriate in diagnosing reading difficulties earlier and providing appropriate interventions.

While the simple view of reading seems to be an accurate predictor of students' strengths and weaknesses in reading, Adlof, Catts, and Little (2006) wanted to determine if the simple view of reading alone would be sufficient or if a fluency component should be added to obtain a clearer picture of a student's reading proficiency. They did a longitudinal study with 604 students where they assessed word recognition accuracy, fluency, listening comprehension, and reading comprehension in the second, fourth, and eighth grades. The scores were weighted in each analysis due to a potential bias from a high population of students with a history of language and nonverbal cognitive deficits. The results showed fluency has little influence on reading comprehension and therefore, is not necessary to add as a component of the simple view of reading.

The debate around the simple view of reading is important because the simple view of reading influences both how teachers instruct reading and develop their curriculum, and also how reading proficiency is assessed. In addition, the simple view of reading highlights the importance of comprehension instruction along with decoding or word recognition and accuracy instruction. Attention around this framework is pertinent to understand why fluency instruction alone can impede comprehension.

Though it is clear that fluency instruction alone is not sufficient, this is not an argument that fluency instruction is unnecessary. Tilstra, McMaster, Van den Broek, Kendeou, and Rapp (2009) argue the use of SVR can be helpful in determining factors that influence reading comprehension in elementary, middle, and secondary years. Research has shown the SVR has been used to identify struggling readers both with difficulties in decoding and difficulties in comprehension. In their study, they analyze the use of the SVR across grade levels to see how it may vary. They chose to look at factors that can be used to determine and predict reading comprehension in elementary, middle, and secondary grades.

Tilstra et al., (2009) found there may be a need to define the C in the SVR to account for all that comprehension entails. For example, they concluded that several factors that contribute to reading comprehension in higher grades, such as prior knowledge and depth of vocabulary, are not assessed through the SVR. This may call for a need to adjust the SVR for different grade levels. In addition, they found decoding is important in elementary years; however, as readers progress through school there are other skills that influence reading comprehension. Also, the role of fluency throughout the grades is important not because reading fast is a sign of strong reading but the ability to read fast allows readers to have more exposure to new words and ideas and also allows them to become stronger at identifying unfamiliar words and making more connections to their prior knowledge.

In conclusion, many forms of comprehension assessments are available, though each has its strengths and weaknesses. Fletcher (2006) argues reading comprehension is difficult to assess because inferences are made only on the product of comprehension and not the process in which the student came to comprehend. Therefore, making only one attempt to assess comprehension is likely to be imperfect as the data is one-dimensional. Fletcher calls for multiple types of

questions or indicators of comprehension, in a comprehension assessment. What is important is that some form of comprehension assessment, preferably something like NARA or QRI-3, of framework like SVR, is used, possibly in conjunction with a fluency assessment, to get a more accurate view of a student's reading proficiency.

In addition, comprehension assessment in the classroom can supplement standardized test data. Fiene and McMahon (2007) discuss one district's assessment process designed to provide more data than what can be provided by typical standardized tests. Teachers were trained to know what to look for to see if comprehension is occurring and then design instruction around individual student's needs. In daily practice, teachers look to see all facets of comprehension are occurring and they track this data to determine if student are growing, regressing, or remaining the same over time. They look at prior knowledge, literal and interpretive comprehension of texts, critical thinking, the ability to recognize and analyze story parts, strategies used to determine word meaning, students' ability to recognize how information is organized, whether students are visualizing texts, if students are able to analyze and generate questions, apply reading strategies, and summarize texts. By tracking all of these things in daily practice teachers are able to get a more in-depth understanding of students' strengths and weaknesses that standardized test data cannot provide.

Predictors of Reading Problems

In an effort to identify struggling readers earlier, teachers must be aware of predictors of reading problems. This will allow them to be proactive about students' difficulties. The National Institute of Health and Human Development research programs have identified some predictors of reading problems for students. The ability to diagnose reading difficulties early on is crucial to prevent long term reading difficulties, and it is necessary in order to provide students with appropriate interventions. A major predictor of a student struggling with decoding and word recognition skills is his facility of phonemic awareness. If a student struggles with the blending of sounds, they are likely to struggle with decoding and word recognition skills, and therefore comprehension. In addition to this, there are several other factors that are good predictors of a student's inability to comprehend texts. They are, a lack of a rich oral vocabulary, limited background knowledge, lack of knowledge about a variety of writing conventions used by authors to create particular effects, lack of syntactic and semantic structures, the inability to read between the lines or make inferences, and the inability to recall and remember what has been read (Lyon, 1998). Understanding these early signs of reading problems can be useful to teachers so they are aware of what to look for and can adjust instruction accordingly.

Using Reading Assessment Data to Identify Struggling Readers and At-risk Students

Regardless of potential problems with assessments and assessment data, it is imperative the data schools do possess about student performance is used to identify struggling readers and those at risk for reading problems. Vaughn, Wanzek, and Fletcher (2007) argue a multiple tiers of intervention framework can be used to identify students who are struggling with reading at an early age. Multiple tiers for intervention allows educators to identify students who are at risk rather than identifying students who already possess a deficit, allowing for early interventions, and reducing bias in the identification process since all students are screened. Finally, it allows for teachers to target students' specific needs in their instructional planning based off of assessment.

To identify students who may be at risk for reading problems, the multiple tiers of intervention framework requires that all students be screened for reading problems. This ensures no students are left out. In addition, it minimizes bias since no particular population is stigmatized for being assessed. Once students are screened, intervention must occur immediately for those students who are identified as being at risk for reading problems. Then, there must be consistent, ongoing progress monitoring to evaluate the effects of the interventions. This monitoring must occur every couple of weeks, or at least six to eight times per year, and should be documented. Students who are not identified as at risk for reading problems will also continue to be screened, but only three times per year. Those students who do not respond immediately to interventions are to continue to receive interventions (Vaughn et al., 2007).

The premise of the multiple tiers of intervention framework is that several things will occur for those who are receiving interventions. First, instruction must be differentiated for these

students, including small group instruction and/or tutoring. Second, the duration of the intervention will need to increase for some students. Third, instruction will need to be tailored to the individual student's particular needs. This will require the teacher to do more intensive planning but will improve the results for the student as instruction targets his needs. Finally, the content of instruction may need to be shifted to ensure lesson plans and curriculum are using the five essential elements of reading instruction identified by the National Reading Panel's 2000 Report (Vaughn et al., 2007).

Intervention

Once reading difficulties are identified, whether in elementary or secondary years, appropriate interventions must be used to support students in achieving reading proficiency. There are many types of intervention programs and models available for schools and districts to adopt. Choosing the right intervention model or approach is crucial to supporting struggling readers. Much research has been done on intervention models and programs. When choosing an intervention model or program, schools must be aware of which models and programs are proven to be most effective for each type of reading deficiency. In addition, it is pertinent that schools are aware of not only the approach to use but when and how to use it most successfully.

Many intervention programs are available to support students who are struggling with comprehension. While there are a multitude of programs, research does not always support the use of these programs as they may not produce results greater than the supplemental curriculum teachers may provide. The What Works Clearinghouse studied four popular comprehension intervention programs: Project CRISS (Creating Independence through Student-owned Strategies), ReadAbout, Read for Real, and Reading for Knowledge. The Project CRISS program addresses comprehension through teaching strategic reading strategies. ReadAbout is a computer based program that provides students with instruction and practice. Read for Real teaches students comprehension strategies to use when reading nonfiction texts. Finally, Reading for Knowledge focuses on comprehension strategies through cooperative learning. The effect of these programs on fifth grade students was compared to control groups. For all four programs, it was found that the control groups performed better at additional assessments than those students who had received instruction with one of these programs. This shows the danger

of relying on packaged programs that may not meet the needs of the students (What Works Clearing House, 2010).

Of the twenty plus intervention programs available, Lose (2007) mentions several that were identified by the What Works Clearing House as having positive effects or potentially positive effects. Reading Recovery has been identified as an intervention that has positive effects for alphabets and general reading achievement, and potentially positive effects for reading fluency and comprehension. Kaplan Spell/Read has positive effects in alphabets and potentially positive effects in reading fluency and comprehension. Finally, Peer-Assisted Learning Strategies and Start Making a Reader Today both show potentially positive effects in alphabets, fluency, and comprehension. It is helpful to know not all intervention programs are as effective as they could be and many do not provide the results schools may be looking for.

Of the programs evaluated by the What Works Clearing House, Reading Recovery is one of the most popular intervention programs used by schools. Founded by Marie Clay, reading recovery identifies three important premises for reading intervention. They are that interventions must occur early, must be intensive with a one-to-one relationship between the teacher and student, and the tutor must receive expert training to be true to the model. Reading Recovery has shown to have positive effects for students and narrows the achievement gap. Two out of every three first graders receiving interventions with the program have shown to have benefited from Reading Recovery (Morris, 2007).

While Reading Recovery has shown some positive benefits, many schools are moving away from it, largely due to the expensive cost. Morris (2007) argues while Reading Recovery is a good program, it is not sufficient. His first concern is the cost of using the program. It is

expensive to train a teacher for an entire year who will only wind up working with four students during a 2.5 hour period. In addition, the program suggests reading problems can be fixed in first grade; however, the evidence does not support that. Also, Reading Recovery does not contain a systematic phonics instruction component which has been found to be an essential element of reading instruction according to the National Reading Panel's 2000 report.

Morris'(2007) intent is to defend the notion of one-to-one intervention for at risk beginning readers opposed to using the "scientifically based" intervention programs that have surged in popularity since the 1990s. Morris argues while reading intervention in the past was not recognized until second grade and poor readers were often provided with small group instruction, intervention now must happen in first grade with one-to-one tutoring since beginning readers need to achieve faster to catch up with their average performing classmates. To address what he considers to be the shortcomings of Reading Recovery, Morris developed his own intervention program, Early Steps, which builds upon the basic premises of Reading Recovery. He includes a systematic phonics element that must be added to lesson plans and he argues that time of tutor training should be changed. The intent of his program is to show how early intervention models can evolve.

In Early Steps, first grade classroom teachers are trained as well as tutors and are required to tutor at least one student per day for thirty minutes. This allows for teachers and trainers to talk more about interventions with a common vocabulary and creates a team of educators who can share experiences and adjust instruction accordingly. A criticism of Reading Recovery is that because only the tutors are trained, they are unable to share their knowledge with teachers, which leaves them uninformed of the process when their awareness of the model could support

both the tutors and students. He contends that having expert trained teachers is essential because they have the power to be more effective than intervention programs (Morris, 2007).

In addition to involving more educators in the intervention process, Morris' program calls for an extension of tutoring services into the second grade since some students may not be able to adequately progress and improve from just one year of interventions. While he does advocate for more tutoring in the second and third grade, these interventions will be less intense; however, they will continue to provide students with the necessary support to achieve reading proficiency.

It is essential that student needs are first identified, and then an intervention approach is selected to target those needs, because no intervention approach will fit for all students. Allington (2007), Lose (2007), Dennis (2009), and Morris (2007) all argue for individualizing interventions to particular students to target their specific weaknesses. Therefore, choosing the right model may not be necessary; however, choosing the right approach would be. Too often the interventions that occur in schools are done with the very texts students cannot read in the first place. By providing students with texts that are inaccessible to them and forcing them to work with these texts for the entirety of a school day, you have students who are not growing at all. Schools must stop purchasing curriculum as if the same texts will work for everyone. When they do that, they largely purchase for those who are higher performers and as a result, Allington (2007) argues the rich get richer and the poor get poorer, or those who are reading proficiently get smarter and those who are not continue to be forgotten. So, schools should be purchasing a range of multilevel texts for courses, and teachers should be matching students to the right text.

Allington (2007) argues a one-sized fits all curriculum or intervention approach is ineffective for struggling readers. Struggling readers need more than a fifty minute or hour long

period daily to improve reading levels. Allington discusses how many struggling readers are going around school with books in their bags they simply cannot read. Most of the research supports the idea that students will not grow as readers if the texts they are reading are too challenging for them to read and comprehend, yet schools across the country are still providing students with books that are essentially inaccessible to them. It is concerning that struggling readers are not getting the books that will help them develop their reading proficiency because we know students need to have books that are challenging but are at, or slightly above, their reading levels. In addition, pulling students out of the classroom for one period a day will not improve their reading. Instead, students should be receiving appropriate intervention all day long. This can be done by providing students with texts that are at their reading level while still being aligned to the content being covered in class .

Allington (2007) argues teachers should be shifting the way they instruct students because schools that use whole class lessons where the teacher is trying to meet the needs of all students at one time through curriculum are less effective and have lower academic achievement. Instead of whole class lessons being done for the majority of time, instruction should be divided into whole class lessons, small group lessons, and side by side learning where teachers are working with individual students. There should be more differentiation that caters to the individual student. Like curricular choices, one-size fits all interventions will not be beneficial to students either. Interventions must be designed in a manner where they are aligned with scientific evidence on what helps students improve.

Dennis (2009) also argues a one-size fits all intervention approach is not appropriate to improving reading proficiency for struggling readers. She had a class of struggling readers who were identified as below proficient on state testing. Her school purchased a reading curriculum

that focused solely on phonemic awareness and decoding. In performing her own assessments on her students, she was able to determine that the intervention curriculum purchased would not be suitable for her students as it addressed not their weaknesses in reading but instead their strengths. This is indicative of the problem many schools are facing. Schools are trying to improve test scores and many are using intervention curriculum programs as a sort of band-aid. They are purchasing curriculum with the intent of improving student performance but are not doing the work needed to determine what the individual students actually need.

To ameliorate this problem, Dennis (2009) designed a five step program to tailor instruction to the individual student. In step 1, she recommends state assessments be used to determine an approximate student ability level. Step 2, teachers should conduct a series of reading assessments as well as an individual reading inventory on individual students to get more specific details about the needs of the student. This is important because some struggling readers will need more or less interventions than their peers. In addition to this initial assessment, it is important that students are assessed periodically throughout the year to measure growth or lack thereof. In step 3 students are grouped by their results from step 2. Here is where teachers must scaffold, differentiate, and tailor instruction to students' needs. In step 4, teachers will create literacy goals for students that they will be a part of. They should also be involved in self-evaluations as well, so they are aware of what their literacy goals are and how they are improving their literacy abilities. In step 5, all teachers must be involved in the plan for improving reading proficiency for the student. Making all teachers aware of the students' needs and their role in supporting the student is pertinent. This may require professional development as staff members may need to be trained to see their shifting roles as not only content level teachers but reading teachers as well.

Lose (2007) argues that a child's response to intervention requires a qualified teacher of reading. She outlines the basic principles of an appropriate response to intervention approach. She argues it is imperative that students receive appropriate interventions immediately because research shows that a student's reading difficulties are often noticed during the first year of instruction. In assessing students, she believes all aspects of a student's "control over literacy including oral language skills, knowledge of letters, words and sound-letter correspondences; concepts of print, and text reading and writing" (Lose, 2007, p.276) should be looked at.

Lose (2007) has several recommendations when working with struggling readers. First, it is important student progress is monitored and this monitoring is done by a skilled diagnostician who is administering the intervention to the student. In addition, it is important to monitor progress yearly to look at growth in the struggling readers. Professional development of the highest quality is needed for those teachers who are working with the lowest achievers because these students need the best teachers. Like Allington (2007) and Dennis (2009), Lose argues for a whole school approach to intervention. By having teachers and administrators joined on the issue, the student is more likely to receive the necessary support in all classes.

Lose (2007) identified several fundamental principles in establishing a successful response to intervention approach. First, teachers must be looking at students on an individual level and tailoring instruction to individual needs. The interventions should be intensive and delivered immediately after a problem is identified. She argues teachers teach children to read, not programs. While she does identify some of the stronger reading intervention programs that have been proven to be successful by the What Works Clearing House, it is clear she believes teachers, and their ability to adapt to shifting student needs, are more effective than scripted programs. She also discussed the risk of using a one-size fits all curriculum that may not

properly identify a student's needs. As noted earlier, she believes high quality professional development is imperative for those teachers who are working with these students.

Many researchers are advocating for the use of one-on-one interventions over the use of packaged programs. It is important to consider the cost of this and whether or not this is a feasible recommendation to educators. Also, it is important to note how effective one-on-one interventions can be for students. Lyon (1998) argues that 90 to 95% of poor readers can improve their reading ability when provided with appropriate instruction and early prevention and intervention. While this number seems promising and offers hope to those performing interventions, it is important to note what appropriate instruction is and what the cost of this type of instruction is.

In "Setting the Record Straight" Allington (2004) argues Lyon's research about effective classroom reading instruction and intervention is misrepresented and inaccurate. Allington reviews the research Lyon cited in his testimony to determine how accurate it is to state 90-95 percent of poor readers can read on grade level if they receive appropriate instruction, and he sought out to determine what good instruction could cost. In reviewing the research, Allington found that the authors cited in Lyon's research were not able to get 90-95 percent of readers on grade level, and the appropriate instruction they provided was individual tutoring. He found the cost of providing poor readers with "appropriate instruction" to make these kinds of gains would be enormous to schools. In looking at the potential reading problems for a suburban school, he postulated it would cost roughly \$500,000 annually to provide students with the one-on-one tutoring necessary to meet the goal of 90-95 percent of poor readers being on grade level. In an urban school where there is likely to be more students struggling with reading, the annual cost to the school to receive the necessary results would be around 1.7million dollars. The point of

determining what the cost would actually be is to show that Lyon and NCLB have unrealistic expectations for schools. While Allington is not arguing they get rid of these expectations, he is trying to point out what the true cost of appropriate instruction is to meet the goals they are setting out. As a result, he argues if this is what is expected of schools and “legislators and other policymakers are going to mandate adequate yearly progress on the basis of research that measured the effects of individual tutoring, then they should fully fund that research-based tutoring for all struggling students” (Allington, 2004, p.25).

Understanding the cost of intensive one-to-one intervention is pertinent to determining the feasibility of such interventions. In order for this type of approach to work, schools would need to allocate more resources to this. However, if more members of the school staff were trained to provide interventions in all subject areas, some costs could be offset and students could receive interventions throughout the school day.

Conclusion

In conclusion, I argue there is a need for several changes in practice and assessment to avoid students' reading difficulties being recognized too late. Elementary level instruction should use the National Reading Panel's Report (2000) as a guide for best practices. Schools and teachers should avoid overemphasizing fluency instruction and assessment. Assessments that look at fluency only should be used in conjunction with comprehension based assessments. The definition of fluency should be expanded to include the ability to read with accuracy, speed, prosody, and comprehension like Deeney (2010) suggests, so teachers are aware that a fluent reader should also be a comprehender.

Comprehension instruction should begin earlier. Teachers should not only focus on a student's ability to read fluently. An effort should be made to ensure comprehension is occurring through the use of varied comprehension assessments. Both the use of quality standardized assessments and classroom-based assessments should be used. Teachers need to be more familiar with teaching comprehension and comprehension strategies to support word callers. This can be done through professional development both in preservice programs and on-site workshops for already practicing teachers. An emphasis should be made on teaching reading as a problem-solving endeavor. Teachers must learn how to teach reading by instructing students to focus on content when they read, as well as author purpose. In addition, teachers must become better versed in teaching older students to make inferences and connections. Finally, teachers must be trained in identifying reading problems early on through an awareness of what the predictors of reading failure are.

As for interventions, while it may be labor intensive, schools should make an effort to determine the specific needs students who have reading difficulties possess and thereby tailor intervention and instruction around these needs. Also, an effort should be made to have leveled texts, so students who are below grade level in reading are provided with texts that match their ability. In addition, the nature of instruction should not rely solely on whole group instruction but small group and one-on-one instruction as well.

If students need to be able to read proficiently by the third grade in order to succeed in high school and college, changes must be made in elementary practice. Practitioners cannot continue to rely on assessments that provide minimal data about student performance. While a consideration educators have with assessments is test administration time, that will have to change. It is practical to take the necessary time to assess students' reading abilities on all measures that contribute to reading proficiency, so reading difficulties are identified early on.

Middle school and high school teachers of all content areas will need to understand this problem and their role in accommodating instruction for students. This is not a problem for the English teacher, but for all teachers who have students in their classes who struggle with reading course materials. Supporting students through their reading difficulties and providing appropriate interventions is the job of all teachers who come in contact with these students. Making an effort to support these students all day will allow them to become stronger readers. It is the job of school administrators to clearly express that supporting student reading is everyone's job. When teachers and administrators collaborate on this, students will reap the benefits. It is my hope that through this collaboration, students will be able to receive the supports they need, and as a result, achievement will increase.

Future Practice

In order to effectively combat the problem of students not reaching reading proficiency, many changes must be made in teacher practice and educational practice in general. Some of these changes are: increased professional development, the adoption of teaching reading as a qualification for all teachers, development of leadership teams at schools to target reading problems, increasing the use of assessment data to identify specific students' needs to tailor instruction, increased one-on-one interventions, improved communication and collaboration amongst educational professionals, and improved assessments in the elementary years.

In order for teachers to support students in their development of reading proficiency, there is a need for increased professional development. With many students' reading deficiencies being identified after fourth grade, there is a need for the teachers serving those students to be qualified in implementing effective reading instruction. While this should be built into preservice teaching programs to prevent new teachers from lacking this knowledge, it is imperative that already practicing teachers be trained on how to identify struggling readers and support them appropriately. This role should not be reserved solely for the English Language Arts or Reading teacher. All subject matters require students to read, and therefore, supporting student reading throughout the content areas is pertinent to developing proficient readers. This is especially important for those students who have fallen severely behind. Receiving interventions throughout the day, opposed to during just one period, can allow them to catch up at a much faster rate.

Taylor and Petersen (2007) argue in order for schools to address the needs of their students who may be suffering from reading problems, or at risk for reading problems, they must

create a leadership team committed to improving the reading achievement of students, making it a schoolwide priority. The leadership team must create a professional development plan that at least eighty percent of the teachers accept. When presenting the plan, the team must be open to adaptations to get the necessary acceptance, or buy-in, from the staff. Once this occurs, resources must be allocated to support the plan and the staff must remain committed. Teachers must be committed to ongoing progress monitoring of students and using multiple assessments to gather data on student strengths and weaknesses to plan or adjust instruction accordingly. In addition, the school should be committed to not only supporting the development of reading for students but supporting the development of students as thinkers.

Within the leadership team, there must be designated roles so teachers remain focused on the initiative and aware of their responsibility to support it. However, there should be space for more teachers in the school to join the team and take on roles as well. It is recommended the team meet at least once a month to keep the plan in motion. To remain focused on the plan, it is important the team is not tempted to adopt new plans or initiatives during the first three years of the implementation of the plan to allow for it to have a chance to be successful. As the plan develops, the leadership team must work with those teachers who are not on board to hear their concerns and help them see the importance of the initiative. In addition, the team must encourage all teachers to remain consistent with their efforts to support the plan since it is imperative that enthusiasm not die down or fade away (Taylor & Peterson, 2007).

Another component of supporting the school wide initiative is having grade level teams meet at least monthly to review data to determine student progress, or lack thereof. This data should be used to inform instruction and teachers must be encouraged to reflect on the data and their own practices. Teachers should also engage in professional development and practice

strategies together. By practicing the same strategies together, teachers can analyze the effectiveness of the strategy during these grade level meetings. This can be done through an examination of student work samples and teacher lesson plans, and through conversations about effective instruction, or through videos where teachers show how the strategy was implemented successfully in their classes (Taylor & Peterson, 2007).

Regardless of whether or not a school decides to create a team designed at targeting reading problems, it is essential schools begin to use the available data on student performance to understand the strengths and weaknesses of students. Too often schools have access to data that is not used to inform instruction. Providing teachers with specific data about student mastery is essential to determine what best practices will be for individual students. Teachers must be mindful of what their students know and struggle with in order to ensure that their instruction is both challenging and aligned to student needs.

Once schools have successfully used data to determine student needs, one-on-one intervention may be necessary to support students in developing reading proficiency. Avoiding packaged programs is recommended since they often do not address the specific needs of individual students. As schools try to minimize costs, they should be looking at how packaged programs that do not necessarily address their population's needs can be an unnecessary cost. Also, providing students with the individual support they need through tailored instruction may produce better results.

Finally, improved communication and collaboration between teachers, tutors, reading professionals, and school administration is important. Having all members of the staff involved in the effort to improve reading proficiency is crucial. Without sharing strategies and personal

experiences, some students could be overlooked or receive inadequate instruction. Allowing the professionals who work with students to collaborate can help students achieve at higher rates.

Future Research

As the debate on effective reading instruction continues, it is important that more research is gathered on the quality of assessments used to determine student reading proficiency. As noted above, not all assessments measure what they are intended to measure and if teachers are going to use assessment data to inform instruction, that data must be accurate and useful. As high stakes testing continues to pressure schools to meet certain performance goals, it is imperative that teachers are aware of what students are being assessed on and how they can use assessment data to provide quality instruction that allows students to succeed on standardized tests.

In addition, future research should focus on how schools can use their existing resources to provide the necessary intervention services students must have in order to develop reading proficiency. Because schools cannot rely on more resources, they must be able to see how their existing resources and staff members can be used to support the initiative of developing all students as proficient readers.

Research in comprehension strategies for older adolescents is needed. Cantrell et al., (2010) argue there is a need for both more information on how inference instruction and activation of prior knowledge may aid struggling readers in comprehension, and how motivation and engagement may be affecting the ability of older adolescents to improve their reading ability.

Better intervention strategies and programs should be researched. As noted above, some effective packaged programs are too expensive to implement. Also, one-on-one tutoring that has proven to be most effective is too expensive for schools to realistically implement. Therefore,

research into how to provide interventions in the most cost-effective manner that still allows for all students to receive necessary, appropriate interventions is needed.

Meisinger et al., (2010) conclude that more research needs to be done into how to accurately identify word callers. Because so many teachers overestimated the amount of word callers they presumed to have in their classroom, practice would benefit from a greater understanding of what a word caller is and how one can be identified. In addition, research into how word callers are identified and how teachers are adapting instruction to differentiate for word callers is needed. Currently, little is known about how teachers are adapting practice when the presence of word callers is identified nor is there much research about how they should be changing their practice to accommodate these students' needs. Also, research is needed to determine what other reading difficulties the misidentified word callers may possess. If their comprehension problems are not considered to be that of a word caller, it is important to discover what their weaknesses are so appropriate instruction can be provided.

Another concern addressed in the Meisinger et al., (2010) study is the issue of fewer elementary students being identified as word callers. While teachers are overestimating how many word callers are actually in their classes in this study, it is unclear as to why the authors found word calling to be rare in elementary schools. Because they notice that word calling is more of a secondary school problem it seems the real issue may lie in why these students are not being identified as having reading difficulties in the elementary years. This refers back to the idea that the assessments used in elementary years are not providing teachers with enough data to recognize these problems. More research into better assessments would allow for problems to be noticed earlier to prevent older students from struggling. This calls for research to be done on older students to determine where assessment data could have indicated comprehension

problems or where comprehension instruction should have been implemented. Finally, Meisinger et al., argue more research must be done in order to determine more effective assessments of comprehension to ensure that students are not solely assessed on fluency.

Once practice changes, there will be a need for longitudinal studies on how this change in elementary assessment and instruction in reading affects reading performance in secondary years. Data will be needed to determine if this change in practice produces the desired results of fewer students struggling with comprehension. It will be necessary to examine if these changes in practice are effective for identifying and fixing early problems of reading, and if this will lead to students becoming more strategic readers by high school.

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