

The Impact of Individualized Explicit
Fluency Instruction

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Abstract

The effectiveness of explicit fluency interventions, with decoding instruction as needed, on a single subject in grade three was investigated. Fluency interventions, including choral reading, echo reading, repeated reading, audio book modeling, and teacher modeling, were conducted over a period of 8 weeks. Results indicated that using manageable text while working independently with a child on specific fluency strategies was positively associated with overall reading skills.

Literature Review

Reading – An Interactive Process

Reading is an interactive process in that it requires the reader to bring experiences and explanations to the text while processing what the text offers (Harris & Hodges, 1995). It has been found that children who do not develop sufficient word identification skills by third grade have a very poor chance of becoming proficient readers and often fall further and further behind (Lyon, 1995). Stanovich's (1986) Matthew Effects explain that children who start off deficient in reading typically remain deficient readers throughout their schooling and beyond. Therefore, it is imperative that readers be competent in three major areas to become proficient oral readers: decoding, fluency, and comprehension.

Decoding and Oral Reading

Decoding involves recognizing the relationship between printed letters and the sounds they represent (Chard & Osborn, 1999). A number of prerequisites are required for decoding skills to emerge. Some of these include the conventions of print, directionality in processing print, the association of letters with sounds, and the ability to blend sounds to form words (Samuels, 1988). As readers acquire the ability to decode, they gain the knowledge that is necessary to become proficient. Fowler, Napps, & Feldman (1985) established that skilled readers segment words into useful chunks, while Gleitman (1985) found that experienced readers are flexible in their approach to pronouncing words. Young readers benefit from their experiences with printed words, eventually acquiring word knowledge needed to read all words, not just those that are

regularly spelled (Katz, Lundquist, & Shankweiler, 1999). Young learners are also able to read words nearly as well in list form as in the context of connected text (Nicholson, 1991).

To become good readers, children must have strategies for figuring out unfamiliar words, such as using context, structural clues, and knowledge of letter-sound relationships (Cunningham, 1990). McGuinness (1997) hypothesized four decoding strategies that children use when encountering an unfamiliar word. First, part-word decoding takes place when the reader arranges familiar letters, letter strings, and/or small words within the target word into something that resembles a real word. Second, whole-word decoding occurs when the reader recognizes the initial and/or final letter in the target word to make a prediction about what the word is. According to McGuinness, these are not effective strategies for reading unfamiliar words because they require the use of context for word recognition. Research shows that automaticity in decoding words independent of context is characteristic of good readers, but not of poor readers. Hence, skilled readers are so good at decoding that they do not ordinarily use context. Relying on context alone is not effective because most words cannot be guessed accurately without using other processes such as phonological analysis and/or orthographic knowledge. While decoding relies on the ability to use context clues, it is often in conjunction with phonics (Stanovich, 1980, 1984).

The final two strategies discussed by McGuinness (1997) are analogic decoding and phonological analysis. Analogic decoding occurs when the reader learns, through experience with print, to focus on common orthographic patterns in the development of sight-word retrieval strategies. In other words, when good readers come to unfamiliar

words, they use words they know to decode unknown words. Phonological analysis requires the reader to retrieve knowledge about letter symbols and blend these according to the sequence of letters in the printed word. This allows children to read words that they do not know or have never seen in print before (Catts & Kamhi, 1999).

McGuinness' (1997) work confirms what Gough, Juel, and Roper/Schneider found in 1983 when they investigated the nature of decoding errors in skilled and nonskilled decoders. They discovered that many decoding errors made by skilled readers were in the form of nonsense words. This meant that the readers were using phonological analysis and/or analogic strategies to decode unfamiliar words, which are more efficient than part- and whole-word strategies. It was hypothesized that when skilled readers made real-word errors, the errors were most likely caused by a misapplication of a rule or an over-reliance on context. It can be concluded, then, that decoding unfamiliar words in conjunction with letter-sound relationships, rather than relying on context, is an important goal of reading instruction. The ability to rapidly decode words without using context promotes fluent reading (Stanovich, 1980). Unfortunately, children who struggle with word identification often have difficulty becoming fluent readers (Vadasy, Sanders, & Peyton, 2005).

Fluency and Oral Reading

The ability to accurately and quickly identify words in text is defined as oral reading fluency (Speece & Ritchey, 2005). Fluency consists of three components: reading speed, automatic word recognition, and prosody (Zutell & Rasinski, 1991). It is hypothesized that fluency is the result of automatic decoding and, therefore, word recognition skills must be intact before fluency can be developed. However, according to

Allington (1983), automatic word recognition should not be mistaken for fluency, as fluency does not depend solely on reading rate. Despite this, Allington maintains that as young children move beyond the emerging stages of reading, fluency is allegedly an important step in “developing effective and efficient readers” (p.561).

Many researchers agree that while readers must be capable of recognizing words automatically, they must also read at an appropriate rate with phrasing and expression in order to interact meaningfully with a variety of texts (Zutell & Rasinski, 1991). Prosodic reading, or reading with expression, is one of the essential aspects of reading fluency. When a child is reading with prosody, appropriate phrasing, pause structures, stress, rise and fall patterns, and general expressiveness are manifested. This occurs once decoding skills are in tact. As children become fluent decoders, their reading mirrors that of a proficient reader. These characteristics include reading with short, even pauses between sentences, and ending sentences with a falling pitch. On the other hand, emerging decoders read with lengthy, sporadic pauses between sentences and sentences are ended with a flat tone (Schwanenflugel, Hamilton, Kuhn, Wisenbaker, & Stahl, 2004). Prosody indicates that the reader has segmented text according to major syntactic-semantic elements (Kuhn & Stahl, 2003).

Fluent readers are able to decode automatically without attention and, therefore, are able to process meaning at the same time that they decode words (Homan, Klesius, & Hite, 1993). However, students with learning or reading disabilities demonstrate difficulties in the area of fluency, including the ability to read sight words, decode words, and read phrases and sentences automatically and rapidly. Fluency is essential for these students because they often have arduous reading, which results in slow and disconnected

oral reading. This effortful reading is problematic because it focuses reading at the decoding and word level, which makes comprehension virtually impossible (Chard, Vaughn, & Tyler, 2002).

Instruction of oral reading fluency is important for developing readers. First, children need to hear themselves read so that they become aware of what their reading sounds like. Second, children need to receive feedback from adult readers in order to monitor reading progress. Finally, children can show off an acquired skill valued by society through oral reading (Taylor & Connor, 1982). Fluency is an essential link between word analysis and comprehension of text and, therefore, is considered a necessary tool for learning from reading (Chall, 1983). Various researchers have found that there is a direct relationship between reading fluency and comprehension.

Comprehension and Oral Reading

LaBerge and Samuels' (1974) Automaticity Theory proposes that learning to read involves automatically processing word units into recognizable words and connecting the words while reading a passage. In effect, this allows the reader to comprehend the text rather than focus on the decoding process. Therefore, to become a skilled reader with the ability to automatically recognize words, children must learn various comprehension skills. To construct meaning from text, children need not only a sight vocabulary but also the phonological awareness and related sound-symbol association skills involved in the development of automatic decoding ability (Gaskins, Gaskins, & Gaskins, 1991).

Word recognition and decoding skills are crucial and should be thought of as essential in order for comprehension and skilled reading to occur. In the early stages of reading, deficit decoding skills are the primary reason for difficulties with comprehension

(Bruck, 1990). Because discerning the meaning of the text depends on accurately reading the words, a typical pattern often noticed is one in which both decoding and reading comprehension are weak (Katz, Lundquist, & Shankweiler, 1999).

Similar to the model outlined by LaBerge and Samuels which states that less attention is available for comprehending a text when the focus is on accurately decoding words, Perfetti's (1977, 1985) Verbal Efficiency Model suggests that slow word reading interferes with the automaticity of reading. Consequently, comprehension is negatively affected. Perfetti further suggests that this slow word reading consumes working memory and prevents the individual from thinking about the text while reading. Therefore, decoding must be automatic in order for comprehension to occur. When children have effective word recognition strategies, they are able to quickly translate the letters of written words into speech sounds and focus more on the meaning of the passage they are reading (Chard & Osborn, 1999). The differences in comprehension between good readers and poor readers can often be attributed to differences in the levels of automatic decoding (Perfetti & Hogaboam, 1975).

Readers decide, subconsciously, what aspects of the written text are to be used and what aspects are to be disregarded, and may change the written text if it does not fit their meaning-centered predictions. These miscues, or unexpected responses to the text made by readers when reading aloud, may or may not cause significant meaning changes (Paulson, 2002). While good readers continually monitor themselves as they read and self-correct when their predictions do not make sense, poor readers do not often have this skill. By using various techniques such as sampling, inferring, predicting,

confirming/disconfirming, and self-correcting, readers find meaning in the text (Martens, 1997).

Ways to Assess Oral Reading

Pseudo word-reading rate

A valid way to decipher if a child can decode unfamiliar words is to have the child attempt to read pseudo, or fake, words. Shankweiler et al. (1999) describe pseudo word reading as “the purest measure of skill in converting print to phonological structures” (p.86). Naming speed of pseudo words is a decoding task that requires students to identify sounds represented by individual letters and letter combinations, and then blend the sounds to form a word. These skills are referred to as phonological analysis, word analysis, or “sounding out” skills (Jones, Torgesen, & Sexton, 1987). Decoding pseudo words ensures that the child has not had previous experience with the words. The reader must convert the print to speech and recode phonologically to identify the pseudo words accurately. Children who can read pseudo words accurately and rapidly have little difficulty decoding running text composed of familiar, regularly pronounced words. Pullen, Lane, Lloyd, Nowak, & Ryals (2005) found that pseudo word decoding is highly correlated with reading comprehension.

Miscue Analysis

Miscues, or errors, are a way to understand how and why readers respond to text as they do (Martens, 1997). Parker & Hasbrouck (1992) found that both traditional oral reading fluency and oral reading accuracy based on severe miscues are efficient, individual assessment tools. They also found that reliable miscue coding is difficult to achieve and that not all miscues appear equally usable. Miscue analysis research shows

that longer passages support readers' meaning construction across the text (i.e. a whole story is easier to read than a page) and readers' miscues across a text reflect their accumulating knowledge as they become familiar with the story (Menosky, 1971). Miscue analysis allows for the opportunity to support readers who are knowledgeable and capable language users and who possess a variety of strengths in becoming more proficient readers (Martens, 1997).

Names Test

The Names Test is a tool that can be used to obtain information about how well students decode words that are likely to be in their listening vocabularies but not in their sight vocabularies. This assessment uses persons' names, thereby providing an ideal source of words for use in assessing decoding skills as children do not often see these words in print. Names are not some of the most common names and represent a balance of short and long words. They are fully decodable, given commonly taught vowel rules and/or analogy approaches to decoding, and represent a good sampling of the most common English spelling patterns (Cunningham, 1990).

Skilled vs. Nonskilled Readers

All readers have the same reading processes, but skilled readers have better control of the process when reading. Skilled readers read a wide variety of literature and are, therefore, more familiar with text structures, content, styles, and vocabulary. Thus, they have more experience with how reading works and, as a result, reading seems effortless to them (Martens, 1997). Allington (1983) maintains that successful readers are often encouraged to focus on the elements of expression while poor readers are asked to focus solely on word recognition, phonics, and other skills in isolation. Also, skilled

readers are given more opportunities to read and, as a result, further develop this skill. When readers have more time to read silently, they “reread sentences in an attempt to understand phrases and experiment with intonation, juncture, and stress” (p.558). On the other hand, less proficient readers do not orchestrate their reading process as proficiently (Martens, 1997). For poor readers, breakdowns in the meaning-making process often occur either at the level of awareness of basic sound units or at the level of associating a symbol or visual pattern with a sound or sound unit and blending these parts to decode words. As a result, those who fail to learn to read efficiently read less, enjoy reading less, and ultimately, reading becomes a self-defeating task (Stanovich, 1986).

It has been hypothesized that most reading difficulties in the early elementary years are the result of instructional and experiential deficits rather than cognitive deficits (Vellutino & Scanlon, 2001). This helps explain why so many children read poorly and why so many are eventually labeled learning disabled (Denton, Vaughn, & Fletcher, 2003). Reading problems could be diminished if individual differences in skill development are addressed at the time they are first noticed, rather than waiting for the differences to become pronounced. It has been found that early and continuous intervention for students with high risk profiles in kindergarten through third grade improves their reading outcomes (O’Connor, Fulmer, Harty, & Bell, 2005). Consequently, it is critical that early prevention and intervention be established as these are the most effective and efficient methods for addressing reading (Torgesen, 1998). Fortunately, children who have failed to learn to decode and/or spell, both of which are critical for the next step in literacy development, by the end of the first formal year of

instruction could potentially improve with explicit, systematic direct instruction during 2nd grade (Strattman & Hodson, 2005).

According to Speece & Ritchey (2005), skills related to fluency development may need to be incorporated much earlier in the reading curriculum because fluency differences begin early. In their recent study, the researchers found that reading fluency problems are apparent at the same time that children are acquiring word attack skills. Therefore, the development of reading fluency may need to be viewed as an associated process in the earliest stages of learning to read words, rather than as a product of learning to read. Early reading instruction may need to target not only word recognition but also fluent word recognition.

Interventions

There are a number of decoding and fluency interventions that can be implemented to improve a child's oral reading abilities. Instruction should address the components of reading that have been linked to reading improvement in experimental studies. These components include phonemic awareness, phonics, and fluency (McCandliss, Beck, Sandak, & Perfetti, 2003). Furthermore, instruction in phonological awareness (the ability to isolate and manipulate sounds in spoken words) has been shown to significantly improve students' reading and word attack skills, including decoding and comprehension (Smith, Simmons, & Kame'enui, 1998). To advance reading outcomes, students known to be lagging behind their peers should receive instruction that differs from the routines that were ineffective. In other words, more instruction or a change in the arrangement of instruction (ie, whole group to small group) may be necessary

(O'Connor, et al., 2005). Instruction can be in the form of whole class activities or direct, specific interventions used with children individually.

Decoding Interventions

Decoding intervention is imperative as it can produce significant gains not only in decoding skills, but also in comprehension and phonological awareness (McCandliss, et al., 2003). There are many intervention strategies that have been proven effective. These include explicit instruction, computer guided practice, and phonics instruction.

Explicit Instruction

Most children need explicit decoding instruction in order to gain an understanding of the alphabetic principle (the fundamental insight that letters and sounds work together in systematic ways to form words) and to ultimately become good readers (Foorman, Francis, Fletcher, Schnatschneider, & Mehta, 1998). Children make the most rapid progress when decoding work is explicit and systematic (Spiegel, 1992). Explicit means the teacher models how to spell and how to sound out and blend to identify words. Systematic refers to the teacher working through important correspondences in a planned sequence (Murray & Lesniak, 1999). Poor readers who lack sufficient background knowledge and skill depend on explicit instruction in order to promote efficient growth (Mercer, Lane, Jordan, Allsopp, & Eisele, 1996). Explicit instruction is essential for students to make the associations they need for both skill acquisition and for generalization (Carnine, Silbert, Kameenui, & Tarver, 2004). Recent findings from Pullen, et al. (2005) indicate that nine first-grade students, identified as having incipient reading problems, had an increase of decoding skill with the introduction of instruction incorporating explicit decoding practice.

One effective method of applying explicit instruction is through a one-on-one tutoring model. This has been shown to be a powerful model for helping children with reading difficulties (Wasik & Slavin, 1993). In a recent study by Vadasy, Sanders, & Peyton (2005), it was found that when a particular student had difficulty reading or misreading words, tutors routinely used very specific correction procedures. For example, the instructors asked the student to isolate difficult sounds in the word. They also directed the student to any familiar letter combinations, word endings, or features that had already been taught. In addition, if the student was attempting to sound out a sight word, they would cue the student that “it’s a sight word” to help the student adjust word identification strategies. The tutors also reminded the student to notice a final ‘e’ if the student mispronounced the vowel in a magic ‘e’ word. Finally, if needed, they would switch the instruction from independent oral reading to echo or partner reading to model accurate reading.

Another type of explicit instruction is the analogy approach. Many researchers have found that when good readers come to unfamiliar words, they use similar, or analogous, known words to decode the unknown words. Adams (1990a, 1990b) concluded that this type of analogy approach is not only a strategy used by skilled readers, but is also an effective method for teaching students to decode. One analogy approach to decoding used by Gaskins, et al. (1991) is compare/contrast. This program is teacher-directed and grounded in an explicit-instruction model where teaching is divided into beginning and intermediate levels. At both levels, students are taught to decode words by comparing an unknown word to known “key words” using a variety of activities. These “key words”, listed by Fry, Fountoukidis, and Polk (1985) are

interesting, one-syllable words that represent the common spelling patterns (phonograms) in the English language. Activities require students to apply what they have learned to the decoding of unknown words both in isolation and in context. The goal is automaticity of application so that students can be free to concentrate on meaning. Not only did this program increase students' decoding abilities, but it also increased their levels of self-confidence. By using a combination of compare/contrast and context clues, students could independently decode most words they encountered. The increase in self-confidence allowed them to take more risks, meet with more success, and have a better attitude about reading. Also, as their reading began to make sense, they enjoyed reading more (Gaskins, et al., 1991).

One last effective decoding activity used with explicit instruction is known as Letterbox Lessons. Reported by Murray & Lesniak (1999), this hands-on, visual activity leads emergent readers to learn the alphabetic code through a systematic sequence of correspondences. In addition, the lessons have been known to help beginning readers develop sight vocabulary and work out the spellings of words before trying to read them. Children spell words by placing letters in a series of visual boxes that show the number of phonemes, or sounds, in words. Using the visual letterboxes as scaffolds, the students attempt to spell and then read the sequence.

To determine which particular correspondence to teach, it is necessary to study miscues made by the student. Lessons are built around a single, one-syllable, new correspondence, usually a vowel, which a student has not yet learned. It has been found that teaching vowel correspondences is particularly productive because they provide students with the decoding knowledge to attempt longer words. Because common

irregular words do not illustrate the alphabetic principle, they are not used with this activity.

Computer Guided Practice

Computer programs designated to focus on decoding skills represent a way of providing children with more individualized practice. A program that allows for this is The Hint and Hunt program because it emphasizes recognizing words with different medial vowels and vowel combinations. One part of the program includes a game-like activity that promotes reading speed, thereby also focusing on fluency. After 10 weeks of daily practice with the program, it was established that the groups had not only generalized the skills they learned to reading similar words in context, but they had increased in both reading fluency and accuracy (Jones, et al., 1987).

Phonics Instruction

Phonics is the linkage of speech sounds to alphabet letters and letter combinations (McCandliss, et al., 2003). Sound Partners (Vadasy, et al., 2004), a one-to-one supplementary phonics-based intervention, addresses this skill. Instructors may provide this instruction to first graders in the lowest quartile in reading skills. Lessons in the program include letter-sound correspondence, decoding and spelling instruction, and reading practice on decodable texts. Hiebert, Brown, Taitague, Fisher, & Adler (2003) assert that the scaffolded oral reading practice that is provided in this program may help students to strengthen word-level reading skills. This may occur through other text supports like illustrations, story structure, and word repetition, including high-frequency and decodable words.

Fluency Interventions

The National Reading Panel (2000) presented the case that instruction in guided oral reading is an important part of a reading program and is associated with gains in fluency and comprehension. For children to read fluently, the majority of words encountered in text should be sight words because they are immediately recognized and require no decoding that would interfere with comprehension (Samuels & LaBerge, 1983). Hoffman and Isaacs (1991) and Beach (1993) suggest teaching fluency by encouraging student connections to the story, providing activities that pre-teach new vocabulary words, modeling and instructing fluency activities, allowing for ample time to practice fluency activities, and centering oral reading on whole texts. In addition to these strategies, Rasinski (1989) identified other principles that can guide the development of appropriate fluency instruction in the classroom. Along with modeling fluent reading, these principles include direct instruction and corrective feedback in fluency, choral reading, repeated readings of one text, and providing students with easy materials for reading.

Modeling

It is important for every student to listen to effective fluent oral reading during reading instruction in order to improve reading fluency (Richards, 2000). Furthermore, having text read initially by a model promotes comprehension, perhaps because it allows students to focus initially on the content of the passage before they read it themselves (Rose & Beattie, 1986). In addition to the importance of fluent modeling at school, Allington (1983) argues that children who have models of fluent oral reading at home

recognize that the ultimate goal of reading is on meaningful expression and not solely on accuracy.

Providing Corrective Feedback

Correction and feedback for words read incorrectly seems to enhance students' overall fluency (Smith, 1979). Furthermore, Weinstein & Cooke (1992) contend that advancing students through progressively more difficult text based on their performance also seems to improve overall fluency. In a more recent study, it was found that rereading text many times to different people and providing progressively more difficult text with feedback and correction for missed words may be the components essential to improving fluency. In instances where corrective feedback was combined with repeated reading, students were more successful at boosting their fluency, primarily by decreasing their reading errors (Chard, et al., 2002). Additionally, O'Shea, Sindelar, & O'Shea (1985) found that giving students cues when they read aloud has an effect on fluency. Cues such as: "Pause at periods and commas"; "Read with expression"; and "Watch for word endings" were seen as more beneficial than general cues, such as "Read well". In conclusion, controlling the difficulty of text, in combination with providing feedback for words missed, are valuable strategies to increase fluency.

Choral Reading

Through choral reading, "children learn to enjoy listening and responding to sound, stress, duration, and pitch" (Miccinati, 1985, p.207). Rasinski, Padak, Linek, & Sturtevant (1994) performed a study in which children were given a copy of a poetry selection to chorally read. The selection was written on chart paper and an illustration was provided to develop meaning for the students. Finally, a simple motion was

performed to match the meaning of each phrase. The researchers found that the students who were taught this fluency development lesson had significantly higher rates of oral reading than did their matched peers. According to Richards (2000), prosodic cues, such as those provided in this choral reading activity, give students the ability to develop skills in identifying grammar patterns as well as detecting prosodic features of a specific selection. These skills are necessary so that fluent oral reading can be accomplished.

Repeated Reading

Several researchers have found that one of the most effective methods for developing fluent reading is through repeated reading of text (Mercer, Campbell, Miller, Mercer, & Lane, 2000). This activity consists of readers reading the same text a number of times until goals of speed and accuracy are reached. The outcome of repeated reading is an increase in rate and accuracy, which subsequently transfers to new texts. This activity also helps children to further understand the phrasing of text and may lead to increased comprehension of the selected text as a result of multiple exposures (Dowhower, 1989). By rereading word lists, repeated reading appears to help poor readers learn more words (Faulkner & Levy, 1999). Because fluent reading is promoted by frequent opportunities to practice with familiar text and to increase exposure to words, this activity is particularly effective and supported as a means of increasing reading performance (Chard, et al., 2002).

In a study performed by Cooper & Paccia-Cooper (1980), before engaging in repeated reading, children in grade two showed adequate word decoding but read in a slow, word-by-word way. After repeated reading practice, children made fewer pauses not dictated by sentence structure and showed greater sentence-final vowel lengthening.

Another study that illustrates the effectiveness of repeated reading was conducted by Martens (1997). This study, however, focused on an individual student who, through repeated reading, gained familiarity with all aspects of the story. As a result of the student's understanding, familiarity, and experience with the story, predictions were made more easily, which ultimately propelled his speed and accuracy.

The repeated reading activity provides additional support for the validity of the Theory of Automaticity (LaBerge and Samuels, 1974) and the Verbal Efficiency Model (Perfetti, 1977, 1985). These theories assert that as students gain fluency, their comprehension increases. The studies mentioned above provide evidence that the focus on developing students' rapid processing of print by reading target passages more than once is often effective as a means to improve accuracy and speed, which ultimately leads to enhanced understanding of text (Chard, et al., 2002).

Although repeated reading is highly effective, assisted repeated reading practice, or reading familiar text under the supervision of a fluent reader, appears to be the most powerful approach to repeated reading intervention (Kuhn & Stahl, 2003). In this model, students are grouped so that proficient readers guide less able readers. Koskinen and Blum (1986) explain that paired repeated readings utilize repeated readings of one text, as well as feedback for every student's reading. Passages of about 50 words are selected and read silently by each student. Partners then take turns reading the passage three times orally, in succession, to one another. The listening student gives suggestions and positive feedback to the partner. The researchers found that paired reading resulted in more meaningful reading, as well as improvements in fluency.

Providing Manageable Text

Decodable text has been recommended to offer students practice in letter-sound correspondences they have been taught, as well as reinforce the application of word-level decoding skills. Readers can subsequently respond to these letter patterns automatically, which enables them to move into the full alphabetic phase of reading (Ehri & McCormick, 1998). Furthermore, controlling the reading level of materials offers more redundancy for high-frequency words, word patterns, and vocabulary, which many researchers suggest can lead to improved fluency (O'Connor, et al., 2002). Fluency appears to develop more quickly if deliberate attention is given to setting criteria and adjusting the difficulty level of text as young readers progress (Chard, et al., 2002). Keehn (2003) concluded that when readers can read materials with 95% accuracy, they have the opportunity to develop fluency.

Controlling the amount of text presented may be beneficial for students who are experiencing difficulty with reading accuracy as it may force them to focus on the words for a longer period of time (Cohen, 1988). Fountas & Pinnell (1999) argue that when children read books at appropriate levels, they are able to apply the strategies they are acquiring. This is important for weaker readers because Faulkner & Levy (1994) found that poor readers who read difficult text seemed to focus more on individual words rather than on text content. However, when texts shared words rather than content, students' fluency increased.

Text is considered decodable when it includes features such as word regularity, frequency, complexity, and lesson-to-text match (Mesmer, 2001). Additionally, Hoffman and Isaacs (1991) recommend text with a predictable structure that includes rhyming

patterns, repeating refrains, or cumulative episodes. Prediction is an extremely important strategy in making sense of text because struggling readers often finally meet success in “cracking the code” when they use predictable text (Kane, 1999). Furthermore, Zutell & Rasinski (1991) suggest that teachers use texts at an instructional or independent level that model natural language patterns when the purpose of instruction is fluency. Young & Bowers (1995) advocate providing struggling readers with text chunked in words or phrases as a means of improving fluency and comprehension.

Findings from a recent study completed by Vadasy, Sanders, & Peyton (2005) suggest that in the context of supplementary tutoring, oral reading practice in grade level texts significantly improves grade-level passage reading fluency rate. In 1998, The National Research Council reported that this type of reading practice reinforces decoding and word-level reading skills in authentic connected text, allowing students to develop the fluency required to construct meaning from texts. Supporting this idea, Tan & Nicholson (1997) concur that practice in reading single words and practice in reading words in context have both been found to increase reading rate for new passages containing the practiced words.

Peer-Assisted Learning Strategies

Research in elementary grades shows that children’s reading competence improves when they work with each other in a cooperative and structured manner (Rosenshine & Meister, 1994). One way of accomplishing this is through Peer-Assisted Learning Strategies (PALS), in which children work together to support each other’s learning (Fuchs & Fuchs, 2005).

Fuchs & Fuchs (2005) report that the general goal of PALS is to strengthen a teacher's capacity to meet the academic needs of a broad range of children. Its focus at grades 2-6 is the development of reading fluency and comprehension. Teachers can differentiate instruction for students at different skill levels by varying the difficulty of reading material, increasing the degree of structure for some pairs, or varying the pace with which pairs proceed through lessons. Every section includes three PALS activities: partner reading, paragraph shrinking, and prediction relay.

First, teachers implement three 35-minute sessions each week with all children in the class. Teachers then train students to implement PALS in seven 45-minute to 60-minute intervals. Students are paired so that each pair includes a high and low performer. Tutoring roles are reciprocal, but the higher performing student reads first for each activity to model desired performance. Material is read that is appropriate for the lower reader. Each pair is also assigned to one of two teams for which they can earn points based on completing activities correctly and for exhibiting good tutoring behavior. Every 4 weeks new pairs and teams are assigned. The PALS motivational system combines competitive and cooperative structures.

Compared with conventional instruction (no-PALS), Fuchs & Fuchs (2005) found that PALS students improved more in reading, and their superior growth was not mediated by student type. PALS is a means of transforming knowledge about reading instruction, developed in highly controlled and artificial contexts, into routines and programs that real teachers in real schools can implement. After a 10-week intervention, Mathes & Fuchs (1993) found that class wide peer tutoring positively influenced reading fluency more than typical reading instruction. Peer tutoring may provide students with

more opportunities to practice reading aloud along with other activities that are related to building fluency.

Readers Theater

The Readers Theater is an activity in which learners repeatedly read manageable text based on a story in preparation for an eventual oral reading performance (Keehn, 2003). Martinez, Roser, and Strecker (1999) maintain that Readers Theater presents repeated reading in a motivational context. Additionally, the researchers report that there is empirical evidence that Readers Theater promotes gains in oral reading fluency, as well as growth in overall reading proficiency.

Keehn's (2003) study of second grade students replicated other findings that Readers Theater is a viable vehicle to enhance oral reading fluency. In her study, second grade students at all levels of reading ability made significant gains in rate, phrasing, fluidity, and expressiveness, as well as in comprehension and word recognition measures. When given explicit instruction in fluency coupled with Readers Theater, there was no addition of students' growth in oral reading fluency. This finding suggests that rereading in text that fits is the critical factor in fluency improvement. Also in this study, it was noted that there was a transfer of fluency from practiced text to unrehearsed text in the sixth and seventh week of Readers Theater. Therefore, it may be necessary for instructional intervention aimed at fostering oral reading fluency to be implemented for six to eight weeks if transfer is to be made to unfamiliar texts.

Readers Theater appears to serve as a motivational tool for fluency practice and improvement, as found in Keehn's (2003) study, because students' interest was sustained over nine weeks of implementation. This study supports LaBerge & Samuels' (1974)

Theory of Automaticity in that sufficient practice in manageable text allows children to focus their attention on phrasing and expressiveness, thereby matching the level of their more able peers in rate and expressiveness. Likewise, further support is made that practice in appropriate text is a key factor in fluency growth.

Key Words and Previewing

Rousseau & Tam (1991) define discussion of key words as the discussion of the meanings of key words from the reading passage prior to reading the passage aloud. An alternative is listening-previewing, or any method that provides an opportunity for a learner to read or listen to a selection or passage prior to instruction and/or testing (Daly & Martens, 1994). Rousseau and Tam found that discussion of key words and listening-previewing when presented together were more effective than either treatment presented alone with language minority students with speech and language deficits. Previewing reading material has been shown to increase oral reading proficiency among low achieving students (Sachs, 1984), and discussion of key words is also effective in increasing both factual and inferential reading comprehension because readers are provide with relevant prior knowledge of the subject (Rousseau, Tam, & Ramnarain, 1993).

Comprehension Interventions

Oral Recitation Lessons

Oral Recitation Lessons (ORL) are recommended as an important means of providing fluency instruction in the regular classroom (Rasinski & Zutell, 1990). Developed by Hoffman (1985), this activity combines modeling and rereading with discussion of text. Students practice aloud assigned parts of the text together and

independently, and then have an opportunity for an oral reading performance. This ultimately leads to growth in oral reading performance. The ORL is similar to using repeated reading as a component of direct instruction, but instead children are introduced to the text with comprehension as the focus of instruction. While they are reading, teachers focus on helping students read using language patterns that they would use if they were talking. Other prosodic features for discussion are distinguishing between question and statement voices, understanding characters' expressed emotion, such as anger, sadness, joy, or disgust, and reading longer phrases with appropriate pauses.

In their study of seventy-eight second graders, Reutzel & Hollingsworth (1993) found that the ORL was an effective means of developing second-grade students' oral reading fluency, as measured by errors per minute. They also found that the traditional Round Robin approach to developing fluent oral readers was much less effective. In addition, this study confirmed the study by Rasinski (1990b) in that improving students' reading fluency simultaneously improves their reading comprehension. Instructional attention to the aspects of fluency can build students' metacognitive awareness of fluency production.

Nonrepetitive Strategies

Nonrepetitive strategies, such as echo reading, unison reading, and assisted cloze reading, enable students to read a wider range of literature because selections are read only once (Homan, et al., 1993). When children are exposed to a variety of literature, they are able to develop schemata for the nuances of each (Irwin, 1991). Nagy, Anderson, and Herman (1987) proposed that reading a wide range of materials exposes

children to a larger number of unique words. They acquire most new vocabulary through reading, so these types of strategies are more beneficial than direct instruction.

Areas of Agreement

There were no contradictions found among researchers regarding the topic of oral reading. However, many important issues were found to be consistent. For one, researchers agree that to become good readers, children must have strategies for figuring out unknown words. They concur that relying on context alone is an ineffective strategy for reading unfamiliar words. Studies performed consent that poor readers cannot guess words accurately without relying on other strategies. Therefore, it is established that decoding unfamiliar words using letter-sound relationships, in combination with context, is a goal for readers.

Secondly, investigators of reading conclude that children have a difficult time becoming fluent decoders when word identification is a struggle. They believe that when students with reading difficulties are provided with specific instructions, including repeated readings, guidance, and procedures for monitoring their reading performance, the learners' fluency can be improved. One essential aspect of fluency growth maintained by many researchers is prosody, or the ability to read with appropriate phrasing and expression.

Finally, it has been found that word recognition, decoding, and fluency growth are all associated with the development of comprehension. When children focus too much on word reading, it interferes with the automaticity of reading. Providing text at appropriate levels avoids this problem and is imperative to the success of students applying the strategies they are acquiring. Fluency and comprehension are impeded if

text level is too difficult. Therefore, it is essential that early prevention and intervention be established to address the endless needs of struggling readers.

After a thorough review of literature in top journals, it has been consistently found that decoding and fluency are intertwined. Children need to have appropriate decoding strategies in place before they are able to successfully read fluently. While many of the above studies have investigated explicit instruction among groups of students, fluency research with decoding assistance on a single subject has not been explored. Therefore, the present study investigates the outcome of direct, explicit fluency instruction, with decoding strategies as needed, implemented with a single student.

Research Problem and Methodology

Identification of the Problem

Early decoding and fluency interventions are important in order to improve a child's oral reading abilities. Many young readers have difficulty decoding words and reading fluently. These two processes are intertwined and depend on each other. When a child's decoding skills are weak, fluency will also be weak. Decoding and fluency interventions are essential components of direct instruction. Therefore, providing specific instruction for students with reading difficulties is imperative to their growth as successful readers. In particular, explicit interventions in both decoding and fluency have proven effective when providing this type of instruction.

Significance of Study

This study was undertaken to further accumulate evidence about the implementation of explicit instruction of fluency measures, along with decoding instruction as needed. Early intervention leads to greater success. By implementing explicit strategies to increase a reader's fluency abilities, important information will be gained regarding the effectiveness of direct instructional strategies.

Method

Subject.

The subject for this study, "Susanne", is an 8-year, 7-month old Caucasian female who attends a public elementary school in a suburban community in the northeastern United States. She currently receives small group instruction from the Reading Specialist at her school one time per week for 45 minutes that focuses on various reading skills and strategies. Susanne was chosen for the current study because she has difficulty reading fluently. Her oral reading lacks expression, appropriate phrasing, and pause structures. She also struggles with reading phrases and sentences automatically and rapidly, making oral reading slow and disconnected. When reading, her periodic difficulty with decoding words affects her fluency. In order to improve Susanne's reading prosody, specific fluency strategies were focused on, practiced, modeled, and reinforced.

Materials.

The Writing and Reading Assessment Profile (W.R.A.P.) (Learning Media Limited, 2001), a commercial running record assessment tool, was administered in order

to determine the subject's independent reading level. Independent level reading passages from the book Horrible Harry at Halloween by Suzy Kline (Scholastic Inc., 2000) and Sable by Karen Hesse (Scholastic Inc., 1994) were then employed to establish a baseline. Fluency interventions were conducted using the books Horrible Harry and the Kickball Wedding by Suzy Kline (Scholastic Inc., 1992), Song Lee and the Hamster Hunt by Suzy Kline (Puffin Books, 1994), and Horrible Harry in Room 2B by Suzy Kline (Scholastic Inc., 1988). Other books used were Yo? Yes! by Christopher Raschka (Orchard Books, 1993) and Piggie Pie! by Margie Palatini (Clarion Books, 1997). The phrase-cued passage, *Pass It On*, by Bill E. Nider (Scholastic Inc., 2000) was also used for instruction. Audiobooks used were Blueberries for Sal by Robert McCloskey (Scholastic Inc., 1976), Miss Nelson is Missing by Harry Allard (Scholastic Inc., 1977) and The Story About Ping by Marjorie Flack and Kurt Wiese (Puffin Books, 1977). A final reading was conducted using the book Horrible Harry Goes to Sea by Suzy Kline (Scholastic Inc., 2001).

Procedure.

The W.R.A.P. assessment was first administered to establish the subject's independent reading level. Once this level was determined, the student was asked to read aloud passages from two independent level texts in order to establish a baseline for the number of words read correctly in one minute (WCPM). Different passages at this reading level were read to establish data stability of WCPM. Once stability was gained, fluency interventions began.

Fluency strategies that were implemented included choral reading, echo reading, repeated reading, audio book modeling, and teacher modeling of phrasing and intonation. Each session, a fluency strategy was taught, practiced, and applied to an independent level text. After the instruction period, a passage was taken from either the story that was just practiced or from an unfamiliar passage, and the subject's WCPM were determined and graphed.

Beginning in January, sessions were conducted two to three times per week for eight weeks. Each session was 20-30 minutes. Session one began on January 23, 2006. This session focused on echo reading a passage from Horrible Harry and the Kickball Wedding. An emphasis was placed on expression and reading to punctuation. After two repetitions of echo reading the same portion, Susanne read the same section independently to establish WCPM.

The second session consisted of the same instruction using a passage from Song Lee and the Hamster Hunt. Again, after two repetitions of echo reading, the student read the same passage independently and WCPM was attained. In addition, she was timed reading an unfamiliar portion of the same text.

During the third session, Susanne listened to a book on tape, Blueberries for Sal. After each page, the tape was stopped and she re-read the section, attempting to use the same phrasing and pace as the narrator. An unfamiliar passage of text from Horrible Harry and the Kickball Wedding was then read and timed.

The fourth session consisted of a repeated reading of a passage from Horrible Harry and the Kickball Wedding. The subject practiced reading a segment of text and was then timed for one minute. She continued to practice reading the same passage and

WCPM were noted each time. This was repeated a total of four times. Finally, she was timed reading an unfamiliar passage from the same text.

Session five again included the student listening to a book on tape, Miss Nelson is Missing, and periodically re-reading a portion of the passage. After she listened to the book and repeated parts of the text, focusing on the narrator's phrasing and pace, she was recorded reading the story. After, Susanne listened to the recording of herself on tape and the expression of the narrator versus her expression was discussed. She was then timed reading a portion of the familiar text, as well as an unfamiliar passage from Horrible Harry and the Kickball Wedding.

Session six contained teacher modeling of intonation. The book Yo? Yes! was first read aloud to Susanne to illustrate correct expression and intonation. She then practiced reading the same text with expression. A timed reading was conducted using unfamiliar text from Horrible Harry and the Kickball Wedding.

The next session consisted of choral reading. The student was timed reading an unfamiliar portion of Horrible Harry in Room 2B before the choral reading practice. After the reading practice, familiar text was read and timed.

Session eight consisted of teacher modeling of phrasing. The book Horrible Harry and the Kickball Wedding was used to exemplify this. The strategy of chunking text when reading was discussed. Susanne practiced using this technique and was then timed reading an unfamiliar passage from the same text.

The ninth session was a repeated reading, as conducted in session four. The same text, but different passage, was used. The subject again practiced reading a segment of

text and was timed for one minute, for a total of five times. Following this, she was timed reading an unfamiliar passage from the same text.

During session ten, the student was instructed on phrase-cued reading, or reading in phrases. A marked passage, *Pass It On*, was given that visually illustrated phrases broken into parts. The student was taught how to read with appropriate phrasing and then practiced reading using this strategy. An unfamiliar text from Horrible Harry and the Kickball Wedding was read to establish WCPM.

The next session also included modeling, but focused on pausing at commas. The book Sable was used to demonstrate this. Once Susanne practiced with this text, WCPM were established using an unfamiliar portion of Horrible Harry and the Kickball Wedding.

Session twelve included modeling using the book Piggie Pie! Fluency was modeled and practiced. No timings were recorded.

The last session included audio book modeling, as in sessions three and five. Before listening to the tape, Susanne was timed to determine WCPM using unfamiliar text from The Story About Ping. She listened to this book on tape and stopped after each page to practice reading after hearing the narrator's modeling. After listening to the book, a discussion was held about the speed, intonation and pausing of the narrator. Susanne was then timed reading the same, now familiar, section of the book.

At the end of the eight-week period, the student read an unfamiliar passage from Horrible Harry Goes to Sea to determine final WCPM. This number was then compared to the baseline established at the beginning of the evaluation.

Results

The results for this study are presented in Tables 1-7.

Discussion

The purpose of this study was to examine the effectiveness of explicit fluency interventions, with decoding instruction as needed, on a single subject. Fluency interventions, including choral reading, echo reading, repeated reading, audio book modeling, and teacher modeling, were conducted over a period of 8 weeks. Each session lasted for 20-30 minutes, and occurred 2-3 times per week. Numerous studies have found that explicit interventions in both decoding and fluency are effective when providing this type of instruction. This study further supported the notion that direct instruction does, in fact, improve a child's reading fluency. The key finding of this study is that working independently with a child on specific fluency strategies, such as those mentioned above, and using manageable text, increases a child's overall reading skills in this area.

One of the most important findings of this study was the importance of manageable reading materials. It has been found in current research that by controlling the reading level of materials, children are exposed to high-frequency words, word patterns, and vocabulary more often, which can lead to improved fluency (O'Connor, et al., 2002). Texts for this study were selected based on Susanne's independent reading level. Once this level was established, reading materials were chosen at a level slightly easier to allow for the application of strategies to be acquired. Chard, et al. (2002) supports the idea of using manageable text and maintains that it allows fluency to develop more quickly.

The fluency strategies presented in this study are supported by current research. For instance, Richards (2002) found that developing learners need to listen to effective fluent oral reading during instruction in order to improve fluency. Similarly, when Susanne received modeling of correct intonation, phrasing, and pausing, there was an increase in the number of correctly read words per minute. In addition, it has been found that providing corrective feedback cues when students read aloud has a positive effect on fluency (O'Shea, Sindelar, & O'Shea, 1985). Again, as Susanne was reminded to use punctuation when reading and to read with expression, her fluency improved. Also, with the implementation of choral reading, Susanne successfully read more words per minute than she demonstrated at the start of the study. Richards (2000) supports this finding by stating that prosodic cues given to students during choral reading allow children the ability to develop necessary skills so that fluent oral reading can occur.

Several researchers have found repeated reading of text to be one of the most effective methods for developing fluent reading (Mercer, Campbell, Miller, Mercer, & Lane, 2000). This was also true with regard to the subject in this study. Susanne's reading fluency improved tremendously as text was read repeatedly. Dowhower (1989) concluded that the outcome of repeated reading is an increase in rate and accuracy, which subsequently transfers to new texts. Similarly, when given unfamiliar text immediately following repeated reading, there was a significant increase in the number of words read correctly per one minute intervals relative to the data collected in the baseline. Chard, et al. (2002) concur that the frequent opportunities to practice with familiar text is a particularly effective means of increasing reading performance.

Chard, et al. (2002) goes on to explain the effectiveness of corrective feedback in conjunction with repeated reading. They conclude that students provided with this combination were more successful in enhancing their fluency. Unlike Chard, et al.'s study, the subject in the current study was not exposed to corrective feedback during repeated reading sessions. It is likely that she, too, would have responded favorably to this strategy had it been implemented. However, as evidenced in Tables 4 and 5, reading fluency still significantly increased without combining corrective feedback with repeated reading.

Weinsten & Cooke (1992) found that advancing students through progressively more difficult text based on their performance seems to improve overall fluency. This was not explored during the current study. The expectation was that the subject would progress at a faster rate by using manageable text rather than more challenging text. Thus, the strategy was to maintain a comfortable reading level throughout the 8 week period.

With regard to choral reading, unlike previous research, which examined poetry and simple motions with a group of students, this study used only passages from text with a single subject. It was found in previous studies that the students who were exposed to poetry had higher rates of oral reading than their matched peers (Rasinski, Padak, Linek, & Sturtevant, 1994). It is possible that if Susanne was placed with a group of students and was provided with poetry, as in the above study, she too would have had an increase in fluency. However, choral reading was still an effective method when used individually and Susanne benefited from this strategy as well.

While this study was effective in demonstrating the benefits of using certain strategies, it did not utilize several other fluency strategies also deemed effective for struggling readers. One of these strategies is Peer-Assisted Learning Strategies, in which children work together to support each other's learning (Fuchs & Fuchs, 2005). Because this study was used with a single subject, this type of instruction was not possible. Another strategy used with a group of students is Readers Theatre, in which learners repeatedly read manageable text based on a story in preparation for an eventual oral reading performance (Keehn, 2003). Again, this activity was not feasible for this study because it relies on a group of students rather than an individual. Finally, discussion of key words from the selected passage prior to reading the passage aloud has been shown to increase oral reading proficiency (Rousseau & Tam, 1991). This strategy was not considered for the current study due to the level of ease of the materials used. If more difficult reading material were utilized, this approach may have been necessary and would possibly have been proven valuable.

Unlike most of the current research, in which a number of strategies were used with a group of students, this study used various strategies in an individual, direct instructional environment. Therefore, while the results are consistent with current research, there is a difference with the population studied. It would be interesting to isolate each strategy with students reading at similar fluency levels to determine which activity produces the best results. In addition, because fluency is linked to comprehension, a recommendation for future research would be to study the effectiveness of fluency strategies applied to a single subject, while also examining comprehension aspects.

This fluency study extends current research by including both echo reading and audio book modeling. Currently there is a limited amount of research conducted in these areas. Echo reading allowed the student to listen to a modeled reading of the text, coupled with a practicing of the same text. Audio book modeling requires the student to listen modeled reading of the text and then re-read the same text using identical phrasing and the exact pace as the narrator. After both activities, unfamiliar text was introduced to determine the amount of words read correctly per minute. In both cases, there was an increase in relation to those established in the baseline. Therefore, the current study found these two strategies to be beneficial in improving fluency when working individually with a student.

Working one-on-one with Susanne was very motivating for her. She enjoyed the individualized attention and looked forward to seeing her progress each session. She responded well to the strategies provided, and the end results of the 8 week period support this. Her improvements have been seen by her parents as well as her teacher, and Susanne has verbalized that she is using the strategies she learned.

While her fluency did improve over the course of 8 weeks, there are some extraneous factors worth noting. For one, sessions were held immediately after school, which did not allow Susanne a chance to have a snack or release energy by engaging in play activities. Extending a student's work day without the opportunity for such "breaks" most likely increases fatigue and affects the ability to focus. In addition, the research environment was not conducive to everyday learning. Session occurred after school in a quiet room with no outside distractions, a setting very different from a typical classroom

environment, where background noise and peer activity can often impact student focus and attention, thus potentially impeding student progress.

What is most crucial in reading is the ability to comprehend what is read, and what impacts comprehension is a student's ability to read fluently. Incorporating various fluency strategies has been associated with a student's oral reading over time. This has been consistently supported in a wide range of research studies conducted in recent years. Most obvious from this particular study is the positive impact that individual direct instruction using these same fluency strategies has on a student's potential success in reading. While it is impossible to determine from this study if any one strategy was more effective than another in helping to improve a child's oral reading ability, it is fair to argue that providing explicit fluency interventions on an individual level can significantly improve a child's oral reading skills. Thus, the successful gains made by the individual subject documented in this study supports the earlier research conducted in the area of fluency.

References

- Adams, M.J. (1990a). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.
- Adams, M.J. (1990b). Beginning to read: Thinking and learning about print. A summary. (Prepared by S.A. Stahl, J. Osborn, & F. Lehr). Urbana-Champaign, IL: Center for the Study of Reading.
- Allington, R.L. (1983). Fluency: The neglected reading goal. The Reading Teacher, 36, 556-561.
- Beach, S.A. (1993). Oral reading instruction: Retiring the bird in the round. Reading Psychology, 14, 333-338.
- Bruck, M. (1990). Word recognition skills of adults with childhood diagnoses of dyslexia. Developmental Psychology, 26, 439-454.
- Carnine, D., Silbert, J., Kameenui, E.J., & Tarver, S. (2004). Direct instruction reading (4th ed.). Columbus, OH: Merrill.
- Catts, H., & Kamhi, (1999). Language and reading disabilities. Boston, MA: Allyn & Bacon.
- Chall, J.S. (1983). Stages of reading development. New York: McGraw-Hill.
- Chard, D.J., & Osborn, J. (1999). Phonics and word recognition in early reading programs: Guidelines for accessibility. Learning Disabilities Research and Practice, 14, 107-117.
- Chard, D.J., Vaughn, S., & Tyler, B.J. (2002). A synthesis of research on effective interventions for building reading fluency with elementary students with learning disabilities. Journal of Learning Disabilities, 35(5), 386-406.

- Cohen, A.L. (1988). An evaluation of the effectiveness of two methods for providing computer-assisted repeated reading training to reading disabled students.
Unpublished doctoral dissertation, Florida State University, Tallahassee.
- Cooper, W.E., & Paccia-Cooper, J. (1980). Syntax and speech. Cambridge, MA:
Harvard University Press.
- Cunningham, P. (1990). The names test: A quick assessment of decoding ability. The Reading Teacher, 44(2), 124-129).
- Daly, E.J., III, & Martens, B.K. (1994). A comparison of three interventions for increasing oral reading performance: Application of the instructional hierarchy. Journal of Applied Behavior Analysis, 27, 459-470.
- Denton, C.A., Vaughn, S., & Fletcher, J.M. (2003). Bringing research-based practice in reading intervention to scale. Learning Disabilities Research & Practice, 18, 201-211.
- Dowhower, S.L. (1989). Repeated reading: Research into practice. The Reading Teacher, 42, 502-207.
- Ehri, L.C., & McCormick, S. (1998). Phases of word learning: Implications for instruction with delayed and disabled readers. Reading and Writing Quarterly: Overcoming Learning Difficulties, 14, 153-163.
- Faulkner, H.J., & Levy, B.A. (1994). How text difficulty and reader skill interact to produce differential reliance on word and content overlap in reading transfer. Journal of Experimental Child Psychology, 58, 1-24.
- Faulkner, H.J., & Levy, B.A. (1999). Fluent and nonfluent forms of transfer in reading: Words and their message. Psychonomic Bulletin & Review, 6, 111-116.

- Foorman, B.R., Francis, D.J., Fletcher, J.M., Schatschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. Journal of Educational Psychology, 90, 37-55.
- Fountas, I.C., & Pinnell, G.S. (1999). Matching books to readers: Using leveled books in guided reading, K-3. Portsmouth, NH: Heinemann.
- Fowler, C., Napps, S., & Feldman, L. (1985). Relations among regular and irregular morphologically related words in the lexicon as revealed by repetition priming. Memory and Cognition, 13, 241-255.
- Fry, E.B., Fountoukidis, D.L., & Polk, J.K. (1985). The new reading teacher's book of lists. Englewood Cliffs, NJ: Prentice-Hall.
- Fuchs, D., & Fuchs, L.S. (2005). Peer-assisted learning strategies: Promoting word recognition, fluency, and reading comprehension in young children. Journal of Special Education, 39(1), 34-44.
- Gaskins, R.W., Gaskins, J.C., & Gaskins, I.W. (1991). A decoding program for poor readers – and the rest of the class, too! Language Arts, 68(3), 213-225.
- Gleitman, L.R. (1985). Orthographic resources affect reading acquisition – If they are used. Remedial and Special Education, 6, 24-36.
- Gough, P., Juel, C., & Roper/Schneider, D. (1983). A two-stage model of initial reading acquisition. In J.A. Niles & L.A. Harris (Eds.), Searches for meaning in reading/language processing and instruction (pp.207-211). Rochester, NY: National Reading Conference.
- Harris, T.L., & Hodges, R.E. (Eds.). (1995). The literacy dictionary. Newark, DE: International Reading Association.

- Hiebert, E.H., Brown, Z.A., Taitague, C., Fisher, C.W., & Adler, M.A. (2003). Texts and English language learners: Scaffolding entrée to reading. In F. Boyd, C. Brock, & M. Rozendal (Eds.), Multicultural and multilingual literacy and language practices (pp. 27-58). New York: Guilford.
- Hoffman, J.V. (1985). The oral recitation lesson: A teacher's guide. Austin, TX: Academic Resource Consultants.
- Hoffman, J.V., & Isaacs, M.E. (1991). Developing fluency through restructuring the task of guided oral reading. Theory Into Practice, 30, 185-194.
- Homan, S.P., Klesius, J.P., & Hite, C. (1993). Effects of repeated readings and nonrepetitive strategies on students' fluency and comprehension. Journal of Educational Research, 87(2), 94-99.
- Irwin, J.W. (1991). Teaching reading comprehension processes (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Jones, K.M., Torgesen, J.K., & Sexton, M.A. (1987). Using computer guided practice to increase decoding fluency in learning disabled children: A study using the Hint and Hunt I program. Journal of Learning Disabilities, 20(2), 122-128.
- Kane, S. (1999). Teaching decoding strategies without destroying story. The Reading Teacher, 52(7), 770-772.
- Katz, L., Lundquist, E., & Shankweiler, D. (1999). Comprehension and decoding: Patterns of association in children with reading difficulties. Scientific Studies of Reading, 3(1), 70-95.
- Keehn, S. (2003). The effect of instruction and practice through readers theatre on young readers' oral reading fluency. Reading Research and Instruction, 42(4), 40-61.

- Koskinen, P., & Blum, I. (1986). Paired repeated reading: A classroom strategy for developing fluent reading. The Reading Teacher, 40, 70-75.
- Kuhn, M.R., & Stahl, S.A. (2003). Fluency: A review of developmental and remedial practices. Journal of Educational Psychology, 95, 3-21.
- LaBerge, D., & Samuels, S.J. (1974). Toward a theory of automatic information processing in reading. Cognitive Psychology, 6, 293-323.
- Lyon, G.R. (1995). Toward a definition of dyslexia. Annals of Dyslexia, 45, 3-27.
- Martens, P. (1997). What miscue analysis reveals about word recognition and repeated reading: A view through the “miscue window”. Language Arts, 74(8), 600-610.
- Martinez, M.G., Roser, N.L., & Strecker, S.K. (1999). “ I never thought I could be a star”: A readers theater ticket to fluency. The Reading Teacher, 54(4), 326-335.
- Mathes, P.G., & Fuchs, L.S. (1993). Peer-mediated reading instruction in special education resource rooms. Learning Disabilities Research & Practice, 8, 233-243.
- McCandliss, B., Beck, I.L., Sandak, R., & Perfetti, C. (2003). Focusing attention on decoding for children with poor reading skills: Design and preliminary tests of the word building intervention. Scientific Studies of Reading, 7, 75-104.
- McGuinness, D. (1997). Decoding strategies as predictors of reading skill: A follow-on study. Annals of Dyslexia, 47, 117-150.
- Menosky, D.M. (1971). A psycholinguistic description of oral reading miscues generated during the reading of varying positions of text by selected readers from grades two, four, six, and eight. Unpublished doctoral dissertation, Wayne State University, Detroit, MI.

- Mercer, C.D., Campbell, K.U., Miller, M.D., Mercer, K.D., & Lane, H.B. (2000). Effects of a reading fluency intervention for middle schoolers with specific learning disabilities. Learning Disabilities Research & Practice, 15, 179-189.
- Mercer, C.D., Lane, H.B., Jordan, L., Allsopp, D.H., & Eisele, M.R. (1996). Empowering students and teachers with instructional choices in inclusive settings. Remedial and Special Education, 17, 226-236.
- Mesmer, H.A. (2001). Decodable text: A review of what we know. Reading Research and Instruction, 40, 121-142.
- Miccinati, J.L. (1985). Using prosodic cues to teach oral reading fluency. The Reading Teacher, 39, 206-211.
- Murray, B.A., & Lesniak, T. (1999). The letterbox lesson: A hands-on approach for teaching decoding. The Reading Teacher, 52(6), 644-650.
- Nagy, W., Anderson, R., & Herman, P. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. American Educational Research Journal, 24, 237-270.
- National Reading Panel (2000). A report of the national reading panel: Teaching children to read. Washington, DC: National Institute of Child Health and Human Development.
- National Research Council (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press.
- Nicholson, T. (1991). Do children read better in context or in lists? A classic study revisited. Journal of Educational Psychology, 83, 444-450.

- O'Connor, R.E., Bell, K.M., Harty, K.R., Larkin, L.K., Sackor, S., & Zigmond, N. (2002). Teaching reading to poor readers in the intermediate grades: A comparison of text difficulty. Journal of Educational Psychology, *94*, 474-485.
- O'Connor, R.E., Fulmer, D., Harty, K.R., & Bell, K.M. (2005). Layers of reading intervention in kindergarten through third grade: Changes in teaching and student outcomes. Journal of Learning Disabilities, *38*(5), 440-455.
- O'Shea, L.J., Sindelar, E.T., & O'Shea, D.J. (1985). The effects of repeated readings and attentional cues on reading fluency and comprehension. Journal of Reading Behavior, *17*, 129-142.
- Parker, R., & Hasbrouck, J.E. (1992). Greater validity for oral reading fluency: Can miscues help? Journal of Special Education, *25*(4), 492-504.
- Paulson, E.J. (2002). Are oral reading word omissions and substitutions caused by careless eye movements? Reading Psychology, *23*, 45-66.
- Perfetti, C.A., & Hogaboam, T. (1975). Relationship between single word decoding and reading comprehension skill. Journal of Educational Psychology, *67*, 461-469.
- Perfetti, C.A. (1977). Language comprehension and fast decoding: Some psycholinguistic prerequisites for skilled reading comprehension. In J.T. Guthrie (Ed.), Cognition, curriculum, and comprehension (pp.20-41). Newark, DE: International Reading Association.
- Perfetti, C.A. (1985). Reading ability. New York: Oxford University Press.
- Pullen, P.C., Lane, H.B., Lloyd, J.W., Nowak, R., & Ryals, J. (2005). Effects of explicit instruction on decoding of struggling first grade students: A data-based case study. Education & Treatment of Children, *28*(2), 63-71.

- Rasinski, T.V. (1989). Fluency for everyone: Incorporating fluency instruction in the classroom. The Reading Teacher, 42, 690-693.
- Rasinski, T.V. (1990b). Investigating measures of reading fluency. Educational Research Quarterly, 14, 37-44.
- Rasinski, T.V., & Zutell, J.B. (1990). Making a place for fluency instruction in the regular reading curriculum. Reading Research and Instruction, 29, 85-91.
- Rasinski, T.V., Padak, N., Linek, W., & Sturtevant, E. (1994). Effects of fluency development on urban second-grade readers. Journal of Educational Research, 87, 158-165.
- Reutzel, D.R., & Hollingsworth, P.M. (1993). Effects of fluency training on second graders' reading comprehension. Journal of Educational Research, 86(6), 325-331.
- Richards, M. (2000). Be a good detective: Solve the case of oral reading fluency. The Reading Teacher, 53(7), 534-539.
- Rose, T.L., & Beattie, J.R. (1986). Relative effects of teacher-directed and taped previewing on oral reading. Learning Disability Quarterly, 9, 193-199.
- Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of research. Review of Educational Research, 64, 479-530.
- Rousseau, M.K., & Tam, B.K.Y.T. (1991). The efficacy of previewing and discussion of key words on the oral reading proficiency of bilingual learners with speech and language impairments. Education and Treatment of Children, 14, 199-209.

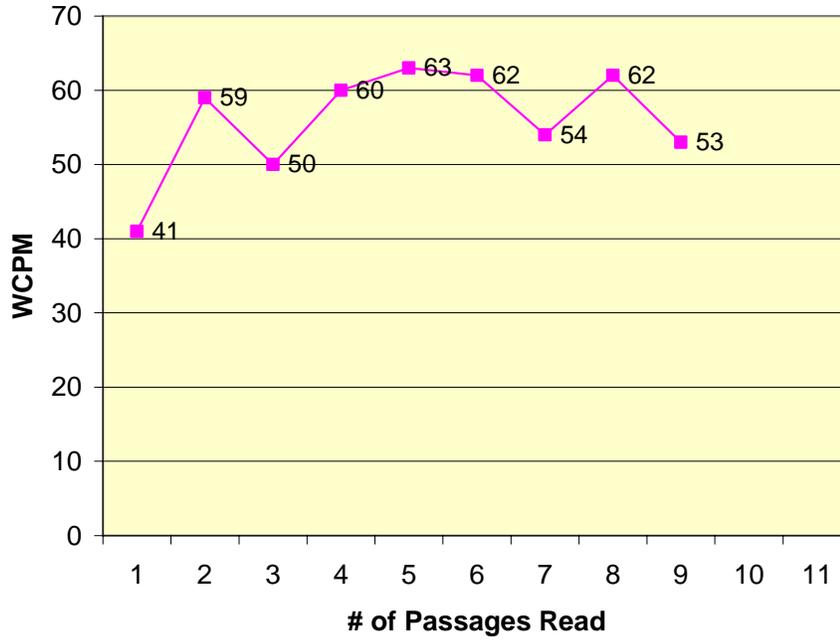
- Rousseau, M.K., Tam, B.K.Y.T., & Ramnarain, R. (1993). Increasing reading proficiency of language-minority students with speech and language impairments. Education and Treatment of Children, 16, 254-271.
- Sachs, A. (1984). The effects of previewing activities on oral reading miscues. Remedial & Special Education, 5, 45-49.
- Samuels, S.J. (1988). Decoding and automaticity: Helping poor readers become automatic at word recognition. The Reading Teacher, 41(8), 756-760.
- Samuels, S.J., & LaBerge, D. (1983). A critique of a theory of automaticity in reading: Looking back: A retrospective analysis of the LaBerge-Samuels reading model. In L. Gentile, M. Kamil, & J. Blanchard (Eds.), Reading research revisited (pp.39-55). Columbus, OH: Merrill.
- Schwanenflugel, P.J., Hamilton, A.M, Kuhn, M.R., Wisenbaker, J.M., & Stahl, S.A. (2004). Becoming a fluent reader: Reading skill and prosodic features in the oral reading of young readers. Journal of Educational Psychology, 96(1), 119-129.
- Shankweiler, D., Lunquist, E., Katz, L., Stuebing, K.K., Fletcher, J.M., Brady, S., et al., (1999). Comprehension and decoding: Patterns of association in children with reading difficulties. Scientific Studies in Reading, 3, 69-94.
- Smith, D.D. (1979). The improvement of children's oral reading through the use of teacher modeling. Journal of Learning Disabilities, 12, 172-175.
- Smith, S., Simmons, D., & Kame'enui, E. (1998). Phonological awareness: Curricular and instructional implications for diverse learners. In D.C. Simmons & E.J. Kame'enui (Eds.), What reading research tells us about children with diverse learning needs: Bases and basics. Mahwah, NJ: Lawrence Erlbaum.

- Speece, D.L., & Ritchey, K.D. (2005). A longitudinal study of the development of oral reading fluency in young children at risk for reading failure. Journal of Learning Disabilities, 38(5), 387-399.
- Spiegel, D. (1992). Blending whole language and systematic direct instruction. The Reading Teacher, 46, 38-44.
- Stanovich, K.E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. Reading Research Quarterly, 16, 37-71.
- Stanovich, K.E. (1984). The interactive-compensatory model of reading: A confluence of developmental, experimental, and educational psychology. Remedial and Special Education, 5, 11-19.
- Stanovich, K.E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. Reading Research Quarterly, 21, 360-406.
- Strattman, K., & Hodson, B.W. (2005). Variables that influence decoding and spelling in beginning readers. Child and Language Teaching and Therapy, 21(2), 165-190.
- Tan, A., & Nicholson, T. (1997). Flashcards revisited: Training poor readers to read words faster improves their comprehension of text. Journal of Educational Psychology, 89, 276-288.
- Taylor, N.E., & Connor, U. (1982). Silent vs. oral reading: The rational instructional use of both processes. The Reading Teacher, 35, 440-443.

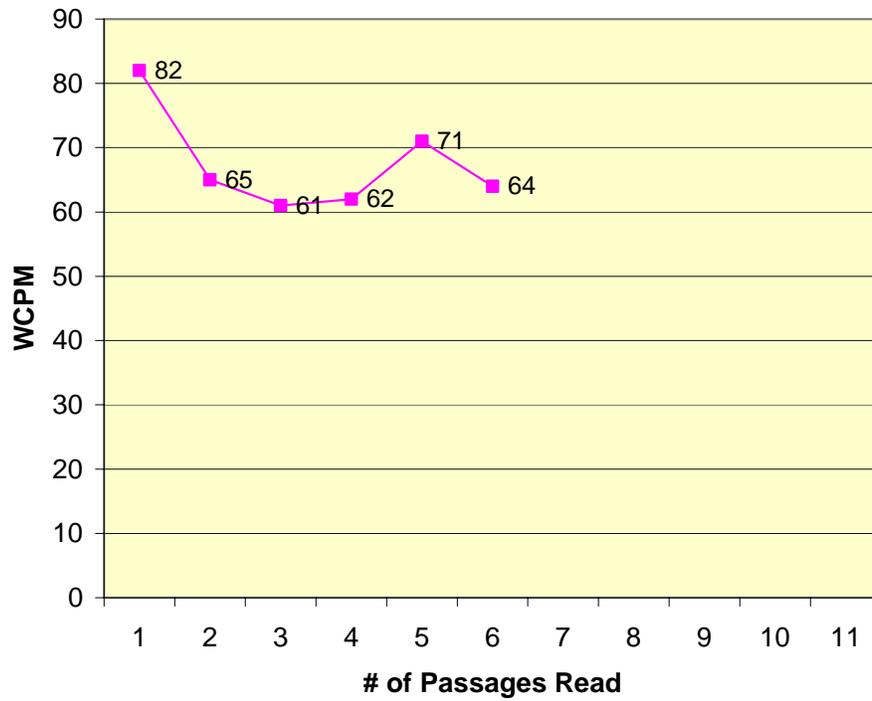
- Torgesen, J.K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. American Educator, Spring/Summer, 1-8.
- Vadasy, P.F., Sanders, E.A., & Peyton, J.A. (2005). Relative effectiveness of reading practice or word-level instruction in supplemental tutoring: How text matters. Journal of Learning Disabilities, 38(4), 364-380.
- Vadasy, P.F., Wayne, S.K., O'Connor, R.E., Jenkins, J.R., Pool, K., Firebaugh, M., et al., (2004). Sound Partners: A supplementary, one-to-one tutoring program in phonics-based early reading skills. Longmont, CO: Sopris West.
- Vellutino, F.R., & Scanlon, D.M. (2001). Emergent literacy skills, early instruction, and individual differences as determinants of difficulties in learning to read: The case for early intervention. In S.B. Neuman & D.K. Dickinson (Eds.), Handbook of early literacy research (pp.295-321). New York: Guilford.
- Wasik, B.A., & Slavin, R.E. (1993). Preventing early reading failure with one-on-one tutoring: A review of five programs. Reading Research Quarterly, 28, 178-200.
- Weinstein, G., & Cooke, N.L. (1992). The effects of two repeated reading interventions on generalization of fluency. Learning Disability Quarterly, 15, 21-28.
- Young, A., & Bowers, P.G. (1995). Individual differences and text difficulty determinants of reading fluency and expressiveness. Journal of Experimental Child Psychology, 60, 428-454.
- Zutell, J., & Rasinski, R.V. (1991). Training teachers to attend to their students' oral reading fluency. Theory Into Practice, 30, 211-217.

Tables

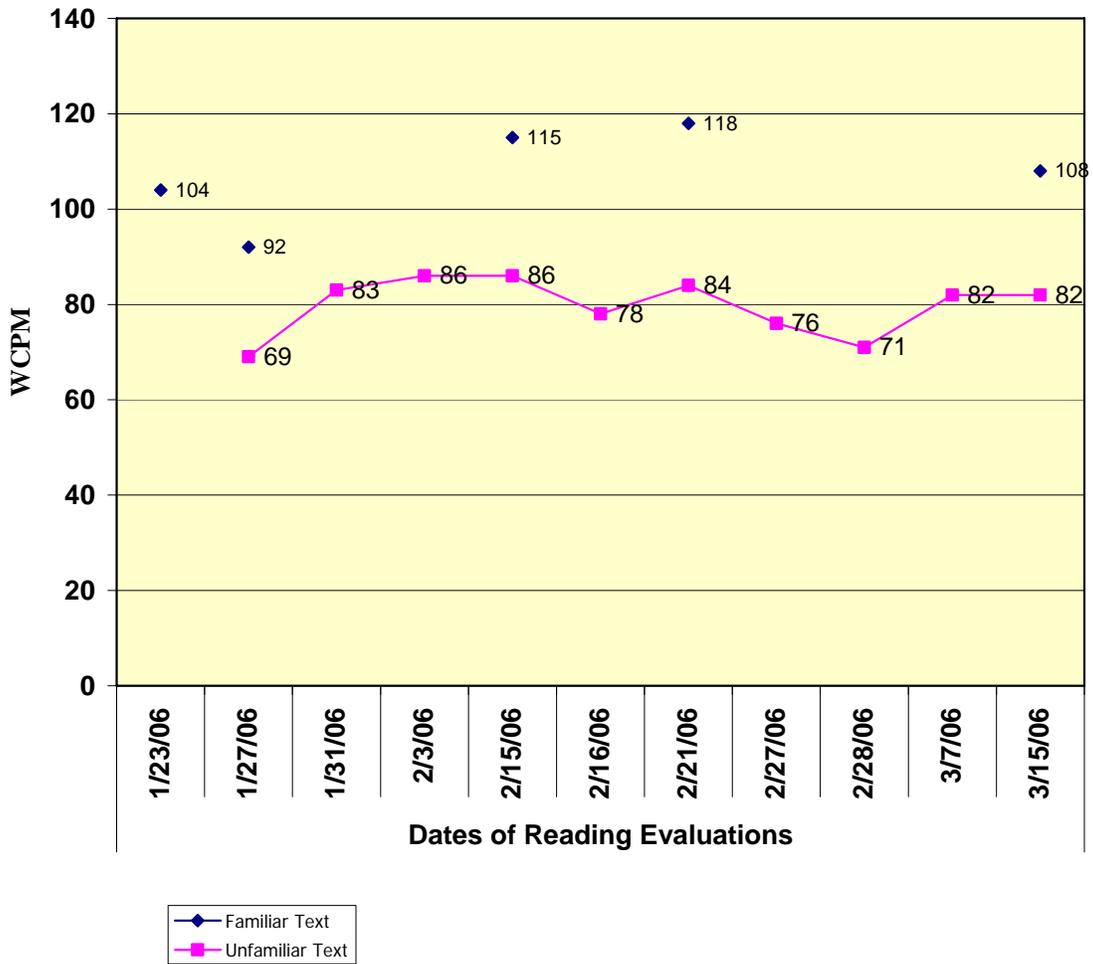
Establishment of Baseline - January 17, 2006
Sable by Karen Hesse



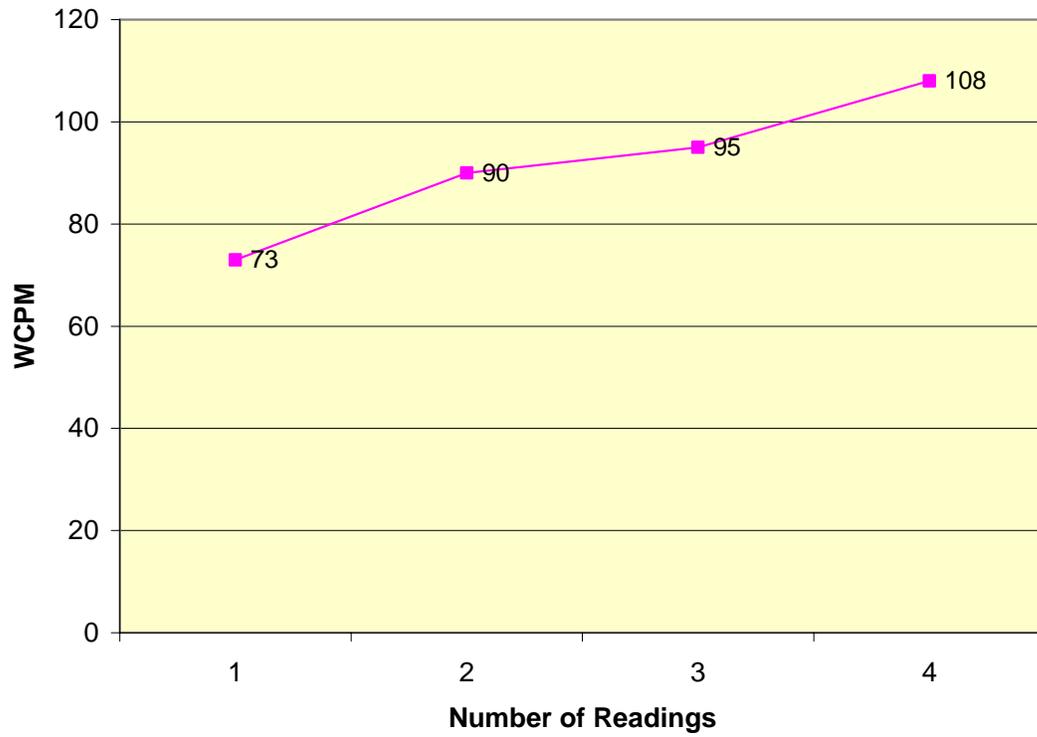
Establishment of Baseline - January 23, 2006
Horrible Harry at Halloween by Suzy Kline



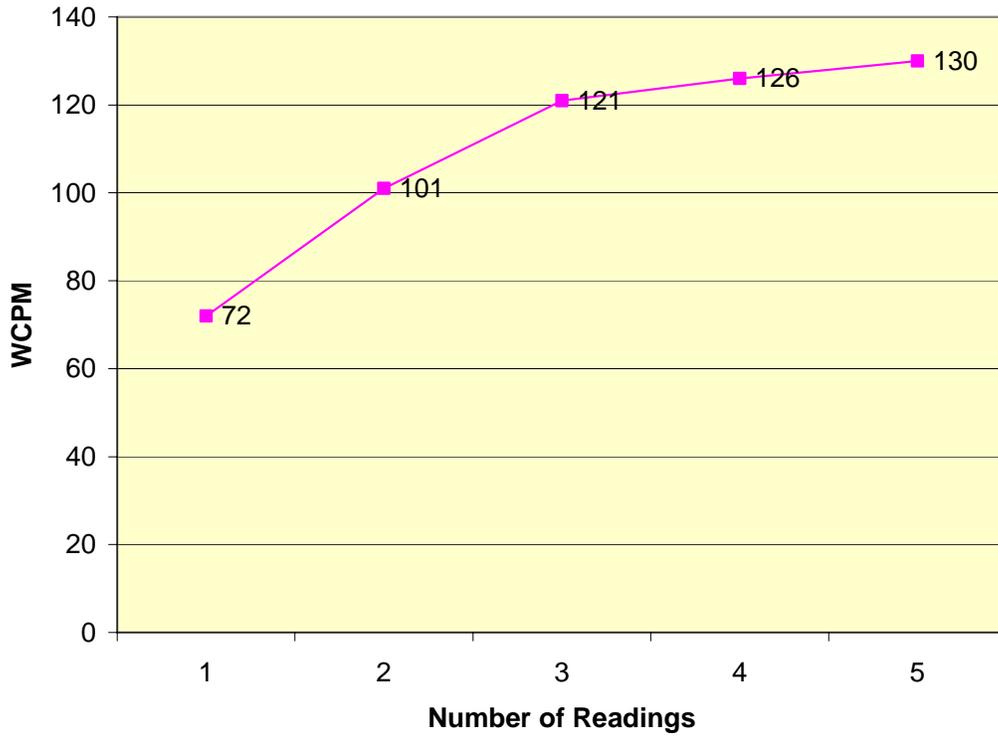
Familiar and Unfamiliar Readings



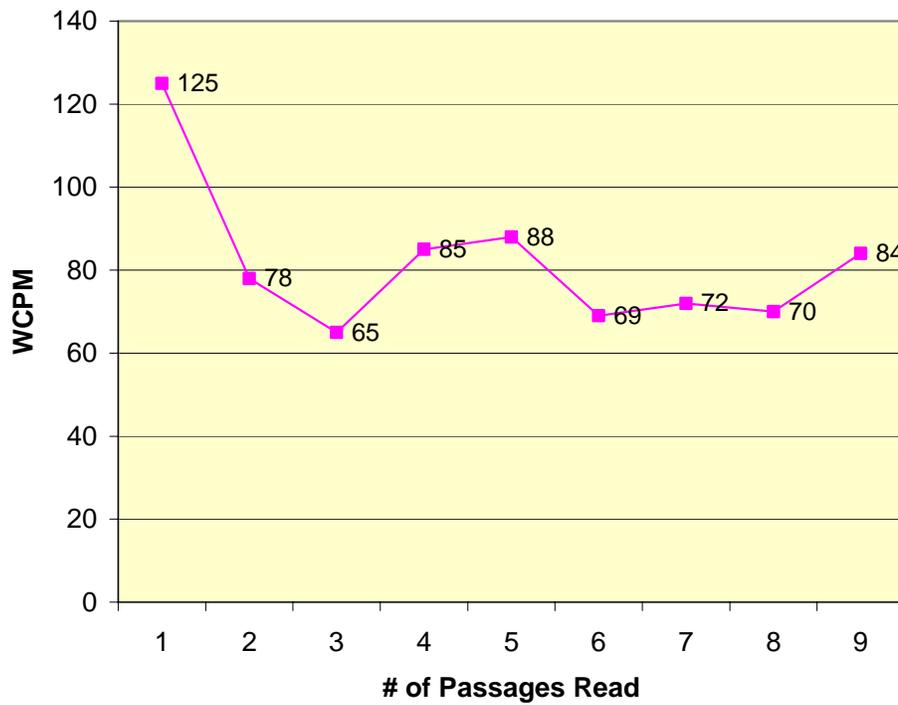
Repeated Reading - February 3, 2006
Horrible Harry and the Kickball Wedding by Suzy Kline



Repeated Reading - February 28, 2006
Horrible Harry by Suzy Kline



Final Reading-March 29, 2006
Horrible Harry Goes to Sea by Suzy Kline



Baseline and Final Reading Comparison

