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How Students Explain Their Word-Solving Strategies When They Come to a Word They Don't Know While Reading and How Does That Explanation Change When Students Are Explicitly Taught a Variety of Reading Strategies

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EXPLICITLY TAUGHT A VARIETY OF READING STRATEGIES

By

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ii

TABLE OF CONTENTS

TABLE OF FIGURES

ABSTRACT

The researcher wanted to see what strategies fourth grade students say they use when they come to a word they don't know while they are reading. The researcher asked them what they do and then had them read out loud from a text. Notes were taken on the strategies they used to see if what they said matched what they actually did. Three mini-lessons were then given on word-solving strategies that they could use to figure out unknown words. Last, the students read out loud again and were asked what they do to problem-solve a word. The results were that the students did not use the strategies of sounding out and chunking that they said they used, but used the strategies of rereading and self-correction while they read.

CHAPTER 1

Introduction

Do you notice what you do in your head when you come to word you don't know when you are reading? As an adult, probably not. More than likely, you don't sit there for a couple of seconds talking to yourself about how you are going to go about reading a tricky word. This is because the different strategies that we use to problem-solve words have become so ingrained in us as adults that we don't think about it anymore; it has become automatic. For students, this process is not automatic. They do not have the years of problem-solving words under their belts that adults do. Students are still learning the different strategies that they can use.

Problem Statement and Significance of the Problem

The objective of the project is to examine how students explain their word-solving strategies and how that changes when the students are explicitly taught a variety of word-solving strategies. By focusing on this topic, the researcher is in agreement with Catherine Compton-Lilly, who says in her article *"Sounding out": A Pervasive Cultural Model of Reading* (2005) that "we must continuously work to expand the range of strategies that children possess to solve words and monitor their use of these strategies" (p. 450). Compton-Lilly's research indicated that most students today say that they use the strategy of sounding out words more than any other word recognition strategy. What educators would like them to be doing is using a variety of strategies effectively. A possible source of this problem could be that if a child is reading with someone other than a teacher, that person's first response to a

child when they encounter difficulty is to tell them to sound it out. It could also be because many people have grown up learning how to sound out and have not learned the different ways that words can be solved.

Catherine Compton-Lilly conducted her research through a cultural lens. She looked at students who said they use the "sounding-out" strategy when they read and how their culture at home affected their feelings toward that strategy. The researcher is going to be looking at many different strategies that a student can use when they are problem solving text. Compton-Lilly said that when she asked them what strategies they use when they are stuck on a word, many of them said something similar to sounding out. The researcher wants to take this research a step further and see what happens when these students are explicitly taught the different strategies that they can use. When a student can verbalize the strategies that they believe they are using, this will impact what their teacher is going to teach them. The teacher will know, through observing the student, if a strategy they are using is working for them and if they need to be taught a new strategy that will be more beneficial to trying to problem-solve a particular word.

There are many people who are stakeholders in this research. The most important stakeholder would be the students that are involved. They are going to have the opportunity to be taught a variety of strategies that they can use when they read. Their teachers are also impacted by this research because they are going to get the chance to see the research and possibly use the information from it in their own

classrooms. This research will also contribute to the research that is already out there about problem-solving while reading.

This research will have an impact in a variety of ways. First off, it has impacted the researcher's philosophy of teaching by having her pay more attention to the verbal cues that she tells students when they encounter difficulty. It may also impact professional development because in the future the researcher may decide to conduct a seminar on the different strategies that can be used and share her findings. The research, however, will impact her students the most because they will walk away from this project with a better understanding of their reading and better ways that they can go about the process of reading.

Purpose

The value of change will be different for each of the stakeholders. For the researcher and her students, the value will be great. They will be learning from each other and coming to a better understanding about how to teach and learn different reading strategies. This research will also help the students become metacognitively aware of the strategies that they use while they are reading. Knowing this could aid the students in becoming more independent, strategic readers. The value for their teachers, however, will be minimal. Once they read the research, they can do with it what they want. They can take it to heart and try to incorporate it into their teaching, or they can leave it and not do anything with it. Hopefully this research will show them the importance of directly teaching different word solving strategies to their students and the benefit that verbalizing the strategies has for students.

Rational

The researcher is going to start the project by getting the students' perception of what strategies they use to problem solve words they don't know. Based on the data that is collected by observing them read for this study, the researcher hopes to be able to make recommendations for helping these students to improve their repertoire of word solving strategies. Also, the researcher wants to inform herself and other teachers about what these children already know about problem-solving words and what they have yet to learn. Using this information will then impact the future instruction of these students. The researcher is interested in the research because in the past when she has talked with students about what strategies they use when they read, a majority would say that they sound it out. The researcher then thought to herself, don't they know that there are so many other good ways to figure out a word? So, the researcher is taking it upon herself to make sure that they do know there are other ways and how to use them.

Definition of Terms

Anecdotal Notes – general and specific notes about what you observe or what the child is doing as it relates to your purpose for observing the child (Flippo, 2003).

Chunking – looking for known smaller parts within an unknown word.

Context Clues – syntax and semantic clues found in the text (Flippo, 2003).

Decoding – a definition of word recognition and analysis that indicates it (word-recognition and analysis) starts with symbols and involves getting the

intended meaning of words by identifying and analyzing symbols of familiar language (Flippo, 2003).

Direct Instruction – instruction that involves the teacher taking a more dominant role, where teacher talk and teacher intervention is more obvious (Flippo, 2003).

Encoding - a definition of word recognition and analysis that indicates it (word-recognition and analysis) starts with an idea or with meaning and involves bringing meaning to the symbols to arrive at the message (Flippo, 2003).

Explicit Instruction – a meaningful, qualitative, and learner-centered approach to instruction; skill and strategy instruction that is based on students' needs and builds on what students already know (Flippo, 2003).

Graphophonic (visual) – the term that many reading experts use when they refer to sound and sight clues and strategies rather than using the term *phoneme-grapheme* (Flippo, 2003).

Guided Reading Groups – flexible reading groups in which the teacher guides students through the reading of the text or story for a meaningful reading experience and provides necessary support and modeling along the way (Flippo, 2003).

Linguistic Cueing Systems – three cue systems that include the phoneme-grapheme, syntax, and semantic experience (Flippo, 2003).

Metacognitive Awareness – an advanced cognitive process that involves the reader's awareness of his own comprehension (Flippo, 2003).

Miscue Analysis – a procedure for observing, evaluating, and monitoring oral reading

errors to assess the children's use of reading strategies. Some reading

authorities refer to this as "error analysis" (Flippo, 2003).

Miscues – deviations from the actual wording of the text that a child makes when

reading orally (Flippo, 2003).

Running Record – a procedure for analyzing oral reading miscues or errors; similar to

miscue analysis (Flippo, 2003).

Self-Correction – the miscues that a child notices and fixes on his own. Self-

corrections are an indication of reading strategy strengths (Flippo, 2003).

Semantic (meaning) – meaning clues and strategies (Flippo, 2003).

Syntax (structure) – structure/phrasing clues and strategies (Flippo, 2003).

Summary

In the research, different aspects were looked at that compile figuring out

words. First, there is metacognition, or thinking about thinking, and what readers do

in their heads as they are going through the reading process. Next, the cueing

systems and miscue analysis because in order to become a strategic reader, a person

must be able to use all of the cues correctly which helps to problem-solve words.

Then there are the actual strategies that readers use when they are reading. When a

student is metacognitively aware, these strategies become second nature to a reader.

Last is how to teach these strategies and the variety of ways that other teachers and

the researcher have used when working with students who have difficulty problem-

solving.

CHAPTER 2: REVIEW OF THE LITERATURE

Metacognition

What Metacognition Is

Metacognition is one of those terms that can be defined either very simply or very technically. The simple way would be to say that metacognition is thinking about thinking. If that is not complicated enough, Pat Beckman (2002) says that it is "the understanding a person has about how he/she learns (personal learning schema) including the strategies used to accomplish tasks, and the process by which the learner oversees and monitors his/her use of strategies" (n.p.). It can also be a mental activity in which the thinker becomes aware when they do or do not understand something. Metacognition also allows the learner to think about ways to organize information that will best help them to remember, ways to rehearse and review information in more strategic ways, and being able to apply the right strategy to use for the right situation (Camahalan, 2006).

How to Learn/Teach Metacognition

There are many ways in which metacognition can be taught and learned. Michael Martinez (2006) names a few. He says that students must be placed in situations that require metacognition so that they can practice. Part of this is putting students in settings where social interaction takes place among the students so that they can think critically together and share their thinking with each other. Metacognition should also have a presence in the curriculum, be a goal of both the teachers and the students, and students should be made aware of the importance and

the meaning of metacognition. Martinez also says that it has to be modeled for students, particularly through the process of "think aloud." By doing this, the teacher is giving the students a window into their brain when they are problem solving so that the students can see what cognitive processing their teacher is using. This gives the students a good example of what should be going on in their own heads when they are problem solving.

Going along with the teacher thinking aloud, the next step would be to teach students how to be metacognitive through direct instruction. "Many students' ability to learn has been increased through the deliberate teaching of cognitive and metacognitive strategies" (Beckman, 2002, n.p.). When using direct instruction, the teacher gradually releases the responsibility of thinking about their learning from the teacher to the student in order to make the student independent in their learning (Mokhtari & Reichard, 2002).

One very simple way in which a teacher can make students more aware of their own thinking is through asking them questions. When a student encounters difficulty while reading and they manage to work their way through it, the teacher can ask them how they figured out the problem. By doing this, good reading strategies are going to be reinforced and will leave the student knowing what they did so that they can continue the good practice in the future. This will help them to become independent readers. (Optiz &Rasinski, 1998)

When students have their metacognition skills at the ready, when they are successful at something, they can tell themselves that they were successful on their

own. This increases their confidence in their learning ability. Faye Marsha G.

Camahalan (2006) says that when this happens, "learning is more meaningful, which

encourages the recognition and transfer of skills" (p. 80). When skills can be

transferred, the efficiency of learning increases.

The whole reason for even thinking about one's own metacognitive strategies

is so that, eventually, they do not have to be thought about at all. When that happens,

the strategies have become automated, and thus have become skills. A strategy is a

practice that a person has to think about, whereas a skill is done automatically and

without conscious thought. This is where teachers strive to have their students be

with their reading strategies. They want their students to have different reading

strategies ingrained in their thinking so that the students can do them automatically

without having to think about which one to use; they just use it and use it

appropriately.

The Theory Behind Metacognition

Lev Vygotsky is the theorist behind many ideas that infiltrate the educational

field. One of them that works with metacognition is his theory of higher-order

thought. "Vygotsky taught us that higher-order thinking begins as social discourse

and that these discourse patterns are internalized over time and experience"

(Martinez, 2006, p. 698). In other words, when people share their thoughts and

observe other people's thinking, they can take what they see and hear in the social

plane and apply it to their own thinking. This is the reasoning behind why students

should be placed in a setting in which much social interaction takes place.

How Metacognition Applies to Reading

Kouider Makhtari and Carla A. Reichard (2002) say that being aware and monitoring comprehension processes are critically important to being a skilled reader. They also call this metacognition. A reader's ability to do this decides whether they will be a skilled reader or an unskilled reader.

A skilled reader engages in planful thinking, uses their strategies flexibly, and self-monitors when necessary. They also think about the topic that is being read, review and anticipate what they are going to read, and check their understanding. Good readers use their word knowledge to comprehend the text literally and to draw inferences in order to make sense of what is being read. They use all of their skills and strategies together in order to make meaning. (Mokhtari & Reichard, 2002)

An unskilled reader does not use their skills and sometimes can seem oblivious to them and the need for them. They do little monitoring of their memory, comprehension, and other cognitive tasks in order to focus on decoding instead of meaning making. These are the students who will read something perfectly and then not be able to retell anything about it. Martinez (2006) explains this by saying that the student's working memory is so filled with trying to decode the text that there is not enough room for the student to ask themselves if they understood what they just read. However, in the fluent reader that can summon the skills necessary to decode with little trouble, they have the room in their working memory to think about what they are reading. How this hurts an unskilled reader is that they do not realize that

11

they don't understand, and that impacts their control over their reading processes (Mokhtari & Reichard, 2002).

Teachers can help students realize when they are having difficulty by teaching them different problem-solving strategies that they can use and can talk about the characteristics of thinking (Mokhtari & Reichard, 2002). Buettner (2002) says that effective reading instruction fosters independence of strategies and skills that will allow readers to remain in control of their own learning. They just need the opportunities to practice them. The goal is to have readers be able to use strategies effectively and to articulate them as a meaning-making process.

The Effects of Metacognition

When a student becomes aware of their own metacognition, there are many good things that end up happening. According to Michael Optiz and Timothy Rasinski (1998) when they know where they are having difficulty, they can then take the right steps that will help them to get past it. Also, when they are aware of the different reading strategies that they have at their disposal, they can pick which one to use that will ensure their comprehension and can exercise control over their cognitive actions. Students learn to trust their minds, develop and use a personal study process, and they know how to "try" (Beckman, 2002). When they can do these things, a student can become an independent and strategic learner. Beckman says that this kind of learner:

> "...[is] the student who uses cues and strategies within his/her learning schema,
> asks clarifying questions, listens, checks and monitors his/her work and behavior,
> and sets personal goals. A strategic learner knows the value of using particular strategies

through experience, and is eager to learn others that might prove beneficial" (n.p.).

The Cueing Systems and Miscue Analysis

The Cueing Systems

When a good reader is reading, they are using what they know about what they are reading, what they know about how what they are reading is written (is it a technical paper or a nursery rhyme?), and what they know about what they see. These three things work together simultaneously in order for the reader to make sense out of the text. They are also the components of a three-part cueing system. The parts of the cueing system are semantic (meaning), syntactic (structure), and graphophonic (visual, sound, and sight). When a person reads, they are using the three cues together in a complex way to make sure that the text looks right, sounds right, and that it makes sense.

There are other cues that readers could use too. They can be actual prompts that remind a student of something that they have already learned and prompt the use of a strategy or as an opportunity to learn something new (Beckman, 2002). Schwartz (1997) says that a student uses their knowledge of the world and their language to "problem solve" unknown tasks until they reach an acceptable solution.

Schwartz (1997) also mentions the problems that can happen when a student is not using all three cues (semantic, syntactic, graphophonic) to problem solve. These can be the students that will read for semantics and syntax, but have not been able to make the connection between what they are reading and their oral language. For example, if a student is reading and they say, "The baby is smiling and playing a

13

trick," this makes sense in the sentence, but it does not make sense for normal oral language since babies are not usually know to play tricks. There are also the students that will focus only on the graphophonic and pay little attention to whether or not what they are reading makes sense. This is when a student needs intervention in order to help them get all the systems working together.

What Miscue Analysis Is

A teacher conducts miscue analysis when they want to look closely at the cueing systems that a student is using. This occurs through the teacher observing the student read orally and recording on paper the miscues that the student makes. Miscues are "… unexpected responses during oral reading, such as insertions, omissions, or substitutions" (Davenport, 2002, p. 1). By looking at a student's miscues, a teacher can analyze them to see which systems a student is attending to and which they are not. From there, instruction can be designed to address the skills the student is lacking and teach them how to use all the cues together.

A miscue analysis can be done with a shorter book or passage or a section from a longer text can also be used. The text should be at the high end of the student's independent level or at the low end of their frustration level, that way a sampling of the student's problem solving skills can be obtained. The recording of the miscues can be done on a standardized form or on a simple sheet of paper. Running Records are a standardized way of recording miscues that teachers may use when they are assessing a students reading. A Running Record is when the teacher records the miscues of a student. If the word in print matches what they say, the

recorder uses a check mark for that word. If the word in print does not match what they say, then the recorder uses the appropriate symbol that would correlate with the miscue, such as a circle around the word for an omission and a carrot for an insertion. The recorder can then look at the miscues that the student made and analyze them for what cues the student is using.

Davenport (2002) lists several reasons why miscue analysis is a positive form of assessment. It provides an ongoing reading assessment of young readers. It offers an immediate way of recording enough information to get the general ideas about a student's reading process, which also can show areas of strength and areas of concern. The records can be documentation of a student's reading process that the teacher can then share with other teachers, the student, and their parents.

Yetta Goodman has a belief in doing miscue analysis retrospectively through having the student record themselves reading and then going back and listening to it later. While listening, the teacher and student talk about what type of miscues are being made and why they are happening. This then helps the student to notice what they are specifically doing while they are reading and it reinforces to strategies to help make them more metacognitive.

Types of Miscues

There are many types of miscues that a student can make while reading. Catherine Compton-Lilly (2005) provides many examples. The student may base their attempt at a word on the first letter and say the sound the letter makes followed by the correct word or may say a word that starts with the same letter. When the

child focuses on meaning, they may substitute in a word that is closely related (i.e., *sleeping* for *resting*). If structure is being highlighted, the student may use the wrong form of a word (i.e., *ate* for *eat*). If the student is using the graphophonic cue more, then they may miscue by saying a word that is visually similar to the original (i.e., *big* for *bag*). When coming to an unknown word, sounding out the individual letters from beginning to end is a common strategy that many students say they use. Along with that, the student may find smaller words that they know inside of a bigger word and sound it out that way (*cave-erns* for *caverns*). Then, as a last resort, the child may ask for help from another reader to solve an unknown word.

Other possible miscues include when the child is reading and what they say may be acceptable with meaning and language structure, but the number of words they say does not match with the number of words that are in the text. This shows a problem with the student's one-to-one matching. On the flip side of that, the student may say words that match one-to-one, but they do not reflect the meaning of the text or the structure. An example of that would be if the sentence said, "I went to the store" and the student said, "I wash in the stove." (Schwartz, 1997)

What We Learn From Miscue Analysis

There are many things that we can learn through analyzing a student's miscues. The most obvious are what cueing systems a child is utilizing and how effectively. But there is more beyond that. "Miscues give us new understandings about the reader's dialect, background knowledge and experiences, attempts to make meaning, and active use of reading strategies" (Davenport, 2002, p.1). There can be

both high- and low-level miscues. Moore and Brantingham (2003) tell us that high-level miscues do not interfere with making sense of the text and low-level miscues create barriers toward making meaning. Either way, they are bringing what knowledge they have to problem-solve and try to make sense and meaning of a text. When we can see what knowledge they have, we can find the students that need nurturing through instruction (Optiz &Rasinski, 1998).

Davenport (2002) names many ways in which we can learn about a reader through miscue analysis. Among these include what cueing systems the reader uses and what background knowledge they bring to try and make sense of the text. We can also see what strategies they use to figure out unfamiliar words and if they are able to monitor their reading and self-correct when necessary.

Reading Strategies

There are many, many strategies that a student can use when they are reading a text. The one that Catherine Compton-Lilly (2005) says that she found the most prominent strategy that children say they use, even if they don't actually use it, was sounding out. She defines sounding out as "sounding out words sequentially letter-by-letter" (p. 444). There are both good and bad sides to the prospect of sounding out words.

On the good side, Fountas and Pinnell (1996) say that when a student can sound out parts of words and then connect to unknown words, it helps them to narrow the possibilities and come up with the correct word easier. However, this becomes difficult when a student encounters words with silent letters or complicated letter-

sound relationships. On the bad side, sounding out makes readers focus on phonetic decoding rather than other possible strategies. It makes readers focus more on getting the words right rather than comprehension of the text. Another disadvantage is that if the student has difficulty with graphophonic skills and they rely almost completely on sounding out, then they are going to encounter nothing but problems (Moore & Brantingham, 2003). Because of this, Compton-Lilly (2005) says that readers who rely on this strategy need to be shown that it is more of a handicap than a help and that there are better alternatives.

Another strategy that a reader uses is that of using the cueing systems. This is when the reader can take what they know of the world, language knowledge, and phonological information and put them together to make sense. Most important is making meaning out of what is being read. Sometimes, this may take the form of reading ahead to try to think about what might sound right at the point of difficulty. Fountas and Pinnell (1996) say that this happens when a student is "using the meaning of the story, sentence and/or language to anticipate the word and confirming it with the visual information" (Fountas and Pinnell, 1996, p.156). When a student is able to read something and say that it looks right, sounds right, and makes sense, they are in a good place and should be reading independently.

Part of using the cueing systems is being able to cross-check one system against another. When a reader uses one system to problem solve a word, they should be checking that word against another system to make sure that it still acceptable. When a student is cross-checking, they are also monitoring. Schwartz (1997) says

that monitoring is "attending to the situation and noticing when things aren't quite right…" (p. 42).

The strategy of rereading can take different forms. One of the first stages would be when a child encounters a problematic word and repeats the line up to that word and then makes the sound of the first letter, thus getting a cue for the word (Fountas and Pinnell, 1996). Another way is when the child comes to a word they don't know, they skip it and read on until they come to a clue that helps them and then reread the sentence with the correct word. Moore and Brantingham (2003) give an excellent example of this.

> "…during one miscue session, [a student] skipped the word *husband* and went on to read, 'and his wife.' He immediately reread 'his wife' and went back to correctly pronounce 'the husband and his wife.' When asked … how he knew *husband*, [he] responded: "I knew it was husband because he had a wife" (p. 469)

By rereading, the student is showing that they are trying to make a fit between their cues. Even if the original miscue may not be corrected through rereading, the reader is at least showing that they are beginning to have control over their strategic processes. (Fountas and Pinnell, 1996)

Another strategy that a child might use is that of substitution. This is when they come to a word that they don't know and replace it with a known word until they come to a point in the text where the unknown word can be solved. These words are often graphophonically similar and hopefully are similar in meaning. By substituting words, it allows the reader to read on without getting too hung up on the unknown word and totally lose the meaning of what they were reading (Moore & Brantingham, 2003).

The student may also connect the unknown word to words that sound alike or that are visually similar. If they are trying to find a word that sounds alike, they might look at the first letter of the word and come up with another word that starts the same way. If they are using words that are visually similar, then they are looking for smaller words that are in larger words. Fountas and Pinnell (1996) describe a girl using visual similarity by how "...she appears to notice the first letter, uses a word she knows to be similar (*away*), then notices the initial word part (*al*) before she puts it all together to achieve a response that fits precisely with her knowledge of the way the word looks" (p. 155).

A different strategy is that of predicting. Here, the student uses their background knowledge to anticipate what they are going to read based on what they know about a topic. The student can also predict using story language, semantic cues, and provided pictures to create meaning (Goodman, 2005). When reading while predicting, if the student's predictions are correct, then they continue uninterrupted, but if they predict incorrectly, then they have to reread or read ahead to rethink what other words they could use to clarify their confusion (Davenport, 2002).

Self-correcting is also a reading good strategy that can often be overused. "Self-correction means that the reader has used some cues from the text to generate an attempt, then either immediately, or after reading on in the text, s/he monitors a conflict among the cues" (Schwartz, 1997, p.43). A self-correction happens when a student is making use of the cueing systems and notices that what they say does not cross-check with all of the systems. As readers get more experienced they tend to use

this method more strategically, whereas younger readers may use it too often because they are still learning how it works. Fountas and Pinnell (1996) also say that as a student is progressing, they are able to self-correct at the point of error and still retain meaning rather than needing to go all the way back to the beginning of the sentence and rereading with the self-correction.

Some other strategies that a younger student might use would be those of one-to-one matching, using syllables, going letter-by-letter, and using the picture to figure out words. When a student is one-to-one matching, he/she is pointing to each word and is monitoring the association between what is being said and what he/she sees (Schwartz, 1997). For utilizing syllables, the student is doing almost the same as he/she would with one-to-one matching, but instead is matching the beats in a word to what he/she hears. To use the letter-by-letter strategy, the student may quickly say the letters of the word to themselves to check that what he/she sees is the same as what he/she knows and then puts them together. Finally, using the picture allows young readers to check story meaning and look for key words in a picture that is provided with the text. This could almost be another cueing system, along with semantic, syntactic, and graphophonic, that beginning readers can check themselves against to ensure that they are making sense.

The last strategy that most teachers hope students use as a last resort is that of appealing for help. In many classrooms, teachers have employed the rule of "ask three, then me" to make sure that students are being resourceful in their questioning. When a young student is struggling with reading, asking for help may be their most

common strategy because they do not yet know other strategies that they can use. However, when this does happen, the teacher can turn it into a learning opportunity and begin to teach those strategies that the child lacks.

Beckman (2002) states that a strategy is a tool, plan, or method used for accomplishing a task. Proficient readers use more strategies more effectively than do less proficient readers. They might use predicting, asking questions, thinking about their background knowledge and using strategies in a skillful manner that takes into account the text that is being read (Janzen, 2003). Schwartz (2003) also says that good readers use their cues for meaning from pictures or the context of the story, structure cues from the text and the child's own language knowledge, and graphophonic cues from the print that they see and matching it to what sounds they know. "Good readers self-monitor, search for cues, discover new things about text, check one source of information against another, confirm their reading, self-correct when necessary, and solve new words using multiple sources of information" (Fountas and Pinnell, 1996, p. 157). Overall, Beckman (2002) says that good readers notice when they make a mistake and try to correct it; they are constantly evaluating themselves and they know that there is more than one right way to do things.

Optiz and Rasinski (1998) mention many ways which might make readers less proficient. They tend to have a very limited supply of strategies at their disposal and they might not even understand that the purpose of reading in the first place in to gain understanding. Instead, they focus on getting the words right and do not focus on what they mean. Struggling readers also might not see that reading should sound like

language. Others may have difficulty with comprehension, vocabulary, fluency, and insufficient word recognition, all of which impedes their reading development.

What separates the proficient from the non-proficient readers is their flexibility in their usage of strategies. They are able to call upon the right strategy at the right time and use it correctly. "Additionally, when students become strategic, independent learners, they also become literate and productive lifelong learners" (Beckman, 2002, n.p.).

Teaching Strategies

Deciding What to Teach

"Just as strategies cannot be directly observed, neither can they be directly taught. We teach *for* strategies. Experience is a powerful influence on the construction of reading strategies" (Fountas and Pinnell, 1996, p. 149). It is based upon this theory that teachers need to give students the tools with which they can build their own knowledge. Teachers cannot be inside the minds of their students and help them when they need it, they can only guide them on the path to success.

That path starts with knowing what it is that students do know how to do. This happens through analyzing miscues. It is there that we look for their strategies. Once those are known, then a teacher can develop teaching points based upon what that student needs. If the teacher is working with several groups, they can look at what the group as a whole needs to work on and go from there. This means that not everyone is going to be learning the same thing at the same time (Fountas and Pinnell, 1996).

For readers of all abilities and ages, one of the most important things that a teacher can do is immerse their students in literacy experiences. It is during these experiences that children see demonstrations and modeling of different processes of reading. While children are engaged in authentic reading and writing, they are using the cueing systems to create meaning and structure and increasing their graphophonic system through invented spelling and hearing the sounds in words matched to print. (Schwartz, 1997)

The goal is have readers monitoring themselves as they read. Schwartz (1997) says that, "it is more important to foster the development of monitoring strategies in beginning readers than to stress highly accurate responding" (p. 43). Doing otherwise would cause students to then focus too much on getting the words right and not on the meaning. When readers can monitor for themselves, they realize when they need to self-correct (Davenport, 2002).

Something else that a teacher can do is to use texts that lend themselves to using different reading strategies. When students are given a good text that they can practice on, they will have better chances to use understanding and be able to deepen their comprehension of the text (Janzen, 2003). An example of this that Fountas and Pinnell (1996) discuss is when a teacher uses language from the text as teaching points for strategies that can be generalized to other texts. The teacher used a sentence from the book the class was reading to discuss quotation marks and commas and then to practice them. She also noticed that some students were having difficulty with a word in the text and she used that as a teaching point for the whole class on

how they can combine parts of words that they know to figure out a word that they
don't know.

Strategic Reading Instruction

Strategic reading instruction is a formal plan that follows a standard set of
guidelines. Joy Janzen (2003) discusses this model in depth. It is a four-part model
that includes discussion, modeling, student reading, and review. During discussion,
the group talks together about reading strategies and which ones they are going to
focus on at that time. After that, the teacher models the strategy using the same text
that group is going to use and thinks aloud in order to articulate the strategy while
giving several examples. This part could be altered by mixing it with the discussion
section and by having the whole group read the text chorally with the teacher. The
longest section is when students are reading. They are doing it independently and
silently and were asked to make sure they used the strategy for the day. During
review, the students talk about how they used the strategy and possibly other
strategies that they found themselves using. After, students are encouraged to use the
strategy at other times and in different learning situations.

Beckman (2002) also says that strategy instruction can only be effective if it is
being taught all year long. It also has to be integrated so it is not an additional
subject. When a teacher finds students using the strategies, they should be praised
and encouraged to help their peers do the same.

How Teachers Use Verbal Cues

When a student is reading with a teacher and they encounter a problem, the teacher will more than likely give that student a cue. A cue is designed to guide the reader to focus in on a particular aspect of the reading process that will help them to figure out a word. It can point the child to use any one of the cueing systems. "In the interactions, knowledgeable teachers have crafted just the right cues for readers to apply their developing knowledge of word-recognition strategies" (Clark, 2004, p. 440). Teachers that are experienced with this will have a wide variety of cues that they can apply at any time that will help a student. To be able to call upon the right cue, the teacher needs to recall their knowledge of phonics, orthography, the instructional history of the student, and the student's abilities so as to provide the most effective cue (Clark, 2004). The cue given should be clear and direct and should focus on reading the word, not on learning a rule so that the student can develop independent strategies.

Kathleen Clark (2004) states that there are two types of cues that a teacher can give. The first is a general cue that prompts thought and the second is a more focused cue that prompts a specific action. A general cue asks the reader to think about their knowledge and how they can apply that knowledge to the situation (e.g., How are you going to figure that out?). The responsibility of thinking is left to the reader. Other general cues that a teacher could use include asking the student after they read something "Was that right?" and prompting them to think about what has previously happened in the story they are reading, asking if something makes sense and looks right. Moore and Brantingham (2003) suggest these questions: "What were you

thinking about when you read that word? If you could change the story, what would you do? Why do you think you remembered that one thing and not the other? What strategy did you use to read that word?" (p. 472). Fountas and Pinnell (1996) believe that the goal is for students to be able to ask themselves these questions. To do so, the teacher needs to give the least amount of support that they can and as the student becomes more strategic, that amount will continue to decrease.

More specific cues point readers to direct their attention to a particular strategy. This can include locating phonograms, known smaller words, and taking off an ending of an unknown word (Clark, 2004). The teacher could also call on the student to look closer at the word and decide whether their attempt looked like the printed word, focus on punctuation, looking at individual letters and sounds, blends, digraphs, and r- controlled vowels. Clark (2004) also gives the examples of pointing out the inappropriateness of miscues, the possibilities of the sentence, and to use picture supports. Compton-Lilly (2005) believes that when working with children who are learning to read, "sound it out" should not be a cue that is given. The children tend to over-generalize and sound out every single letter instead of blending the sounds together. She also believes that only teachers who have no other strategy that they can use with a student would use sounding out as a cue.

"If miscues are going to be fixed, the decision needs to be made by the reader. The teacher should not interrupt the reader at the point of miscue during oral reading" (Davenport, 2002, p. 19). This should be done when the student finishes either the sentence or paragraph that they are reading. By having them look at their

miscue immediately, the thought process becomes disrupted and it calls on the reader to focus more on the words rather than on meaning. Interrupting the student during reading also takes the ownership of comprehension out of the reader's hands and places it in the teacher's. We want to support the problem solving of students by praising their miscues and to prompt them to extend the cues that they are using when they make a miscue (Schwartz, 1997).

Teachable Moments and Mini-lessons

Teachable moments happen on the fly when reading with a student. This is when a teacher can take a miscue that a child makes and turn it into a mini-lesson. "Brief instructional conversations … direct a reader's attention just for a moment to an example that will help her learn 'how' to process not only the book at hand but all future books" (Fountas and Pinnell, 1996, p. 157). Mini-lessons can be done whole group, small group, or even one-on-one. It is time where very briefly, between five and fifteen minutes, that the teacher calls the students to focus on a particular topic that she sees them having difficulty with.

Using the Room

The space that a teacher is in can also play a part in strategy instruction. Optiz and Rasinski (1998) give the example of pulling students to a quiet corner of the room and having them read to the teacher. This can be done while the other students are working independently. It is during this time that a teacher can do Running Records and see how their students are progressing with their reading. The room itself can also be used as a tool for struggling readers. By having word walls and

posters with reading strategies on them, a student can quickly refer to them when they encounter difficulty without having to depend on someone else.

Opposing Viewpoint

Beckman (2002) discusses reasons why some teachers might not be teaching their students strategies. Early research on strategy instruction was done with learning disabled students. Some teachers might assume that students will pick up the strategies on their own, or with teacher-directed instruction because some teachers have not shifted in their thinking to focusing on the learner. Many teachers might feel that they already have too much to teach without adding yet another thing. This also will not happen if the teacher believes that teaching strategies will not improve student learning.

Effects of Teaching Strategies

Janzen (2003), Schwartz (1997), and Beckman (2002) all agree that there are advantages to teaching students to be strategic. Janzen (2003) says that these students have a better understanding of text meaning, have a more positive attitude about reading, and progress in their abilities to use strategies. Readers who are strategic also think about meaning, know that all readers make mistakes, and that know that good readers notice and fix those mistakes (Schwartz, 1997). Beckman (2002) states that "it has been demonstrated that when struggling students are taught strategies and are given ample encouragement, feedback, and opportunities to use them, students improve in their ability to process information, which, in turn, leads to improved learning" (n.p).

CHAPTER 3: APPLICATIONS AND EVALUATION

Objective

The objective of the research was to examine how students explain their word-solving strategies and how that changed when the students were explicitly taught a variety of word-solving strategies. The overall goal was to see an increase in the strategies that students know how to use. The result of this should be that the students are reading more strategically and are able to express their metacognition of the strategies.

Participants

The participants consisted of nine fourth grade students, five boys and four girls, all Caucasian, and all identified as needing extra assistance with reading. They came from a middle income, predominantly Caucasian elementary school in a small town, rural setting.

The participants were selected for participation in the project because the researcher worked with them in a master's literacy internship as students on a day-to-day basis. They were also selected because those students were the ones whose parents signed the consent to participate form. All students were in good health during the assessment times; all students were present for each of the mini-lessons that were taught about the different reading strategies; and none of them changed their mind to participate.

Measures

The main theme through the research was to find out what strategies students use when they read. First, the researcher wanted to know what strategies the students thought that they used. She did that by asking the students the question, "When you come to a word you don't know, what do you do?" This is a valid question because it is asking for the exact information that the researcher wanted to know. The students appeared to understand what the researcher was asking.

Reliability for the study was increased due to the consistency of the setting. The setting in which the research was conducted was the same for all students. It took place in the school's reading specialist's classroom, in a back corner with all of the overhead fluorescent lights on. There were two desks, one for the researcher and one for the student. A partition was also set up to separate the desks from the rest of the class. The desks were facing a window, but the blinds were closed. The research was also conducted at the same time of day, between 8:30 AM and 9:00 AM, the time during which the students usually come into the reading specialist's room for reading support. For the first round of questioning and reading, four of the students went on one day, a Tuesday, and the other four went on the next day. The same division happened for the second round five days later.

For the second part of gathering what strategies they used, the researcher had the students read orally while the researcher recorded their miscues. The texts that where chosen are at a Fountas and Pinnell Guided Reading level T. This level was chosen from the suggestion of the reading specialist who said that it was just above the reading level of the students being observed. Having the text slightly above their

reading level would provide more opportunities for the students to problem solve on unknown words, and thus show more strategies that they used. The first text that the students read was *Fording the River*, which was adapted from *The Pioneer Trains* by Lucy Fitch Perkins for the Rigby PM Benchmarking assessment. Reading observations were recorded on a Reading Record form (similar to a Running Record form) provided by Rigby that has the text written out on the form.

The second text the students read was *The Tall Tale of John Henry* by David Neufeld. Both texts were chosen because of the short length or short sections that the students could read and still have meaning of the text. When introducing *Fording the River* to the students, the researcher said, "We are going to read a book called *Fording the River*. It is about people with horses and covered wagons trying to cross a river." When introducing *The Tall Tale of John Henry*, the researcher told the students, "Today, we are going to read this book called *The Tall Tale of John Henry*. Do you know who John Henry is? Well some people do and some people don't. The beginning part is going to tell us what most people know about him. Then they are going to tell us about when he was a baby. We are going to stop at this line [there is a line drawn in the text to signal the student where to stop reading]." Observations were recorded on a photocopy of the text that the students were reading. The administration of this part of the research is both valid and reliable because the questions, explanations, and directions were given the same way to every student.

After the reading of the second text and asking the students what strategies they use when they read, the researcher pointed out what strategies they used

specifically to read *The Tall Tale of John Henry*. The researcher did that through showing them the observations that were recorded on the photocopy of the text to make them aware of the strategies that they were using and possibly not saying that they use.

Procedure

On the first day of research, all of the students that usually come into the reading specialist's classroom for reading support were sitting in rows at their desks. The researcher stood at the front of the classroom and explained to the class what would be happening over the next nine days. The researcher told them that today and tomorrow, the researcher would be calling students to the desks in the back corner to ask them a question and then have them read to her. The rest of the students would be working with the reading specialist when they were not with the researcher. The researcher then walked to the back of the room by the separated desks and called the first student back.

When the student came to the back, the researcher sat at the desk on the left and the student sat at the desk on the right. First, she went over the consent of participation form that they had to sign before she could do the research. She read the form out loud to the student, asked them if they had any questions, and then asked them to sign their name on the appropriate line.

Next, the researcher asked them the research question, "When you come to a word you don't know, what do you do?" She recorded their answers in a lined

notebook and wrote exactly what they told her. If they only mentioned one strategy, she asked them, "What else do you do?" or "Anything else?"

After asking them the question, the researcher brought the text *Fording the River* out from where it was on her desk and held it in front of the student. She told them the title of the book while showing them the front and then opened it while she told them what it was about ("We are going to read a book called *Fording the River*. It is about people with horses and covered wagons trying to cross a river."). The researcher then placed the open text on the desk in front of them. While they read out loud to her, she recorded their miscues and her observations on the Reading Record form that she had in front of her. The symbols that were used to record their miscues are similar to those that Davenport and Marie Clay use. These may be seen in the attached Appendix. When they were done reading, she thanked them for reading to her and asked them to send the next student back. Going through this process with each student took about seven minutes per student during two half hour sessions.

During the first week, the researcher gave one mini-lesson on some different strategies that students can use when they are reading. It was taught to all the students that come to the reading specialist's room for reading support from 8:30 AM to 9:00 AM. For the lesson, see the Appendix. All of the students were also given a laminated bookmark that had the different strategies listed on it. For the bookmark, see the Appendix.

During the second week, two mini-lessons were taught in the same fashion as the first one. The first lesson (in the Appendix) draws the students' attention to the

three cueing systems (semantic, syntactic, and graphophonemic). A poster (in the Appendix) was displayed to remind the students that they should be thinking about the cueing systems when they are reading.

The third mini-lesson (in the Appendix) focused on the students actually using the strategies that were taught in the first two mini-lessons. The researcher created a worksheet (in the Appendix) for the students to work on with a partner. They were to use the bookmarks and poster to name the strategies that they used to figure out the words on the worksheet.

During the last two days of research, the researcher repeated the questioning and reading process from the first two days, but did it in reverse order. The students were called to the back desks one at a time. First, she showed them the book, *The Tall Tale of John Henry*, and then gave them a short introduction to the book ("Today, we are going to read this book called *The Tall Tale of John Henry*. Do you know who John Henry is? Well some people do and some people don't. The beginning part is going to tell us what most people know about him. Then they are going to tell us about when he was a baby. We are going to stop at this line [there is a line drawn in the text to signal the student where to stop reading]."). While they read out loud to the researcher, she recorded observations on a photocopy of the text. When they were done, they were asked the research question ("When you come to a word…"). Their answers were written down in a notebook word for word. If they only gave one or two strategies, they were asked to expand by saying, "What else do you do?" After that, the researcher used the observation notes that she took while

they were reading to show them what strategies they used while they read *John Henry*. She would show them a place where they used a strategy that we talked about and explain how they carried that strategy out. When she was done meeting with one student, they were asked to send the next student back. The last questioning and reading cycle took two days with meeting each student for about seven minutes over the course of two half hour morning time blocks.

Instructions

The instructions that were given to the students before the research began was that the whole class was told that the researcher was going to be meeting with a few of the students to ask them what they do when they come to a word they don't know and them have them read to her. Before they were interviewed one-on-one, they were asked to be honest and to tell exactly what strategies they thought they use, not necessarily ones they think the researcher wanted to hear. Any instructions that were used during the mini-lessons can be found in the Appendix. There is also a copy in the Appendix of the bookmark that was provided for the students for their use during any reading in the classroom or for use during the mini-lessons.

Data Analysis

There were a couple of ways that the gathered data was analyzed. The researcher started with the strategies that the students told her that they use. From recording what they said exactly, the researcher had data for the different strategies that they say they use. For the first questioning, the researcher tallied the strategies that they told first and the strategies they told second. That was done in anticipation

of most of the students saying that they sound out a word first and the researcher wanted to know what other strategies they thought they might use. The same process was repeated for the questioning at the end of the research and then the results were graphed.

Next, their reading strategies were looked at. Here, the number of times that the students used a strategy during their reading was tallied and then converted it into a percentage because the number of miscues would not be same for every student, so the researcher wanted to find an average for what they actually use. The process was repeated for the second reading and then the results were graphed.

The data was then taken from both the questioning and the reading and compared against each other in a graphic format. To do that, the data had to be converted from the strategies that they said they use into a percentage so that it would correlate with the percentages from the reading data. The researcher then compared the data that was gathered to research that was found to see if there are similarities or differences.

CHAPTER 4: RESULTS

The data that was collected was based on asking the students what strategies they use when they come to a word they don't know by writing down the students' responses in a notebook and then tallying the results of all the students' answers. The data for what strategies the students actually used was taken in a Running Record format and then the number of times that a strategy was found to be used in all of the students' Running Records was tallied. The data collection took place for both the first and second trials.

For the first trial, the researcher first asked all the students what they do when they come to a word they don't know. In regards to initial responses, four students said that they sound out, one skips and comes back to the word, and two break the word into chunks. When asked if there were any other strategies that they think they use, skipping and coming back to the word, chunking, asking for help, rereading, and using what rules they know were each said by one student. In other words, five different students gave five different strategies as their second response. See Figure 1 for a graphic representation of the first trial questioning results.
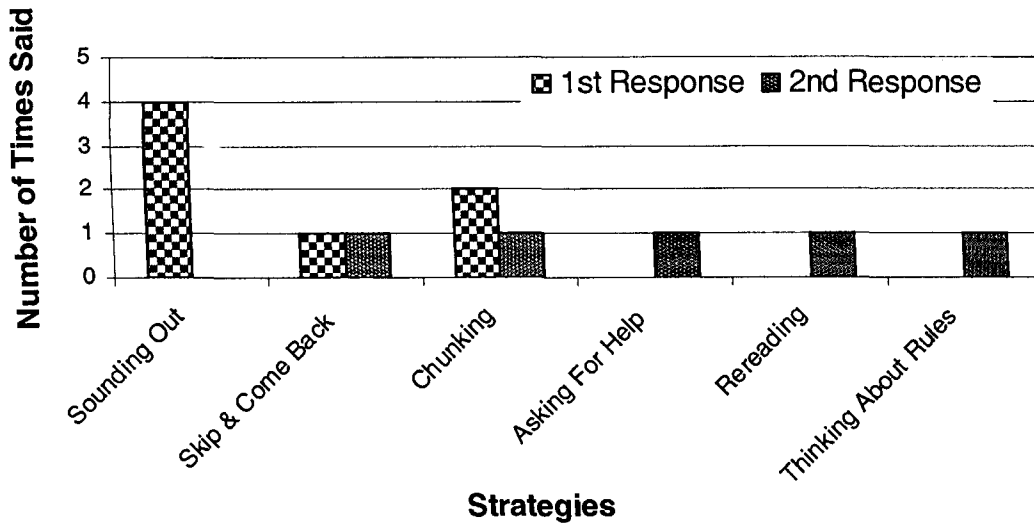
Figure 1. Strategies students' say they use for the first trial.

During the students' first reading, the strategies that were actually used included many that were not mentioned by students. Rereading, at twenty-three tallies, was used the most often. Self-correcting came in under rereading with twenty-one tallies and no students had previously said that they used that strategy. Chunking had twelve tallies, taking multiple attempts at a word had six tallies, and sounding out, which was said as being the most used by students, came in last with only four tallies. See Figure 2 for a graphic representation of the first trial reading results.
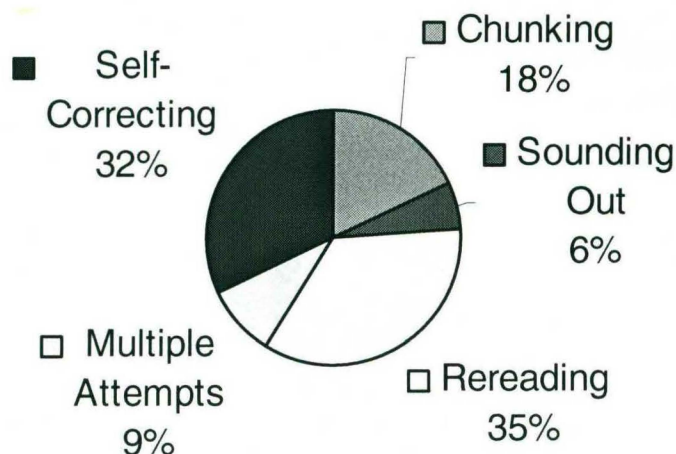
Figure 2. Reading strategies used for the first reading.

For the second trial, when the researcher questioned the students again about what strategies they use when they read, the initial responses were much more dispersed. Whereas sounding out was the most mentioned in the first trial, only two students said it for the second trial. There were only two students that mentioned skipping and coming back to a word and two for rereading. Taking off the ending of a word, thinking about the rules, and stretching out the sounds were each only said once. When the researcher asked the students what other strategies they use, sounding out was mentioned five times while skipping and coming back and chunking were each mentioned once. See Figure 3 for a graphic representation of the second trial questioning data.
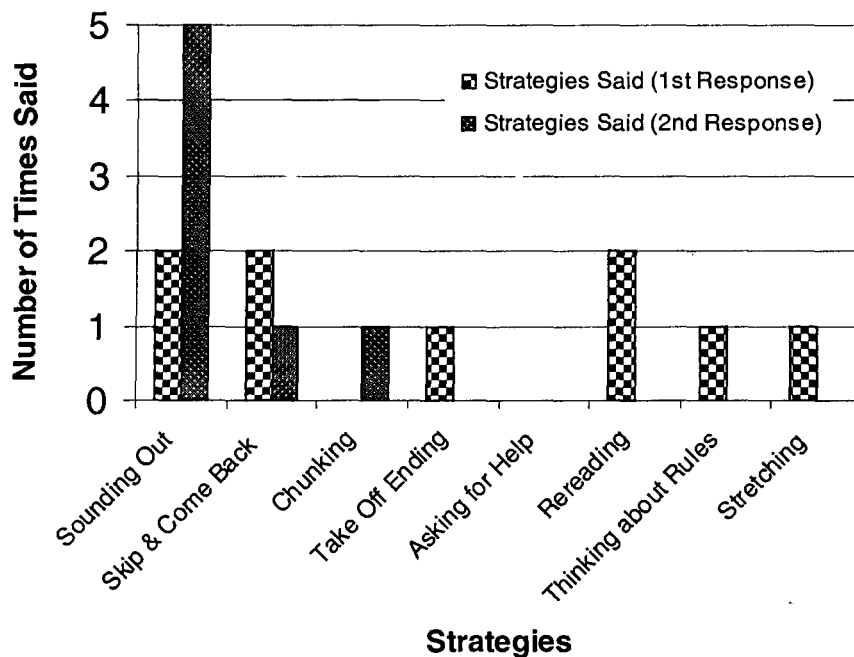
Figure 3. What strategies students' say they use for the second trial.

During the students' second reading, rereading came in again as the most used

strategy by being used forty-six times total by all the students. Self-correcting came

in second with thirty-seven uses; after that multiple attempts had seven tallies and

chunking and pointing to the words had five tallies each. Coming in as the strategy

least used was sounding out, with only being used once out of the students' reading.

Sounding out was the most top mentioned strategy for the second trial when first and

second responses were combined. See Figure 4 for a graphic representation of the

second reading data.

Self-
Correcting
37%

■ Multiple
Attempts
7%

□ Sounding
Out
1%

■ Pointing To
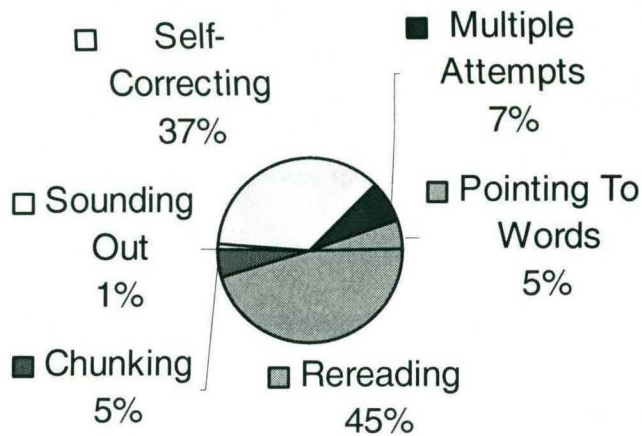Words
5%

■ Chunking
5%

■ Rereading
45%

Figure 4. Reading strategies used for second reading.

When the first and second trials are compared, it is shown that the strategy

most often said by students as being used when they come to a word they don't know

is sounding out. It was said the most often for both the first and second trials. The

strategy that was most used when the students were actually reading was rereading,

but was closely followed by self-correction. Based on the data collected with this

group of students, the researcher believes that students often use strategies while

reading they may not realize they are using. They may not be metacognitively aware

of their own reading strategies and therefore not mentioning them when asked. See

Figure 5 for a graphic representation of a comparison between the first and second

trials.

When analyzing the data, the researcher began wondering why there were

differences in the strategies the students used for the first trial and the second trial.

The nature of the text seemed to be a factor that played a role in this. The text that

was used in the first trial was a short passage from the Rigby reading assessment. It

was about how people traveling west in wagons had to sometimes cross rivers. It was

a topic that some students were not familiar with. The text for the second assessment was a folk tale about John Henry and was an entire picture book that the students only read the first couple pages of. The differences in reading strategies could have been from the students' acknowledging subconsciously that they needed to use different skills to read the two passages.
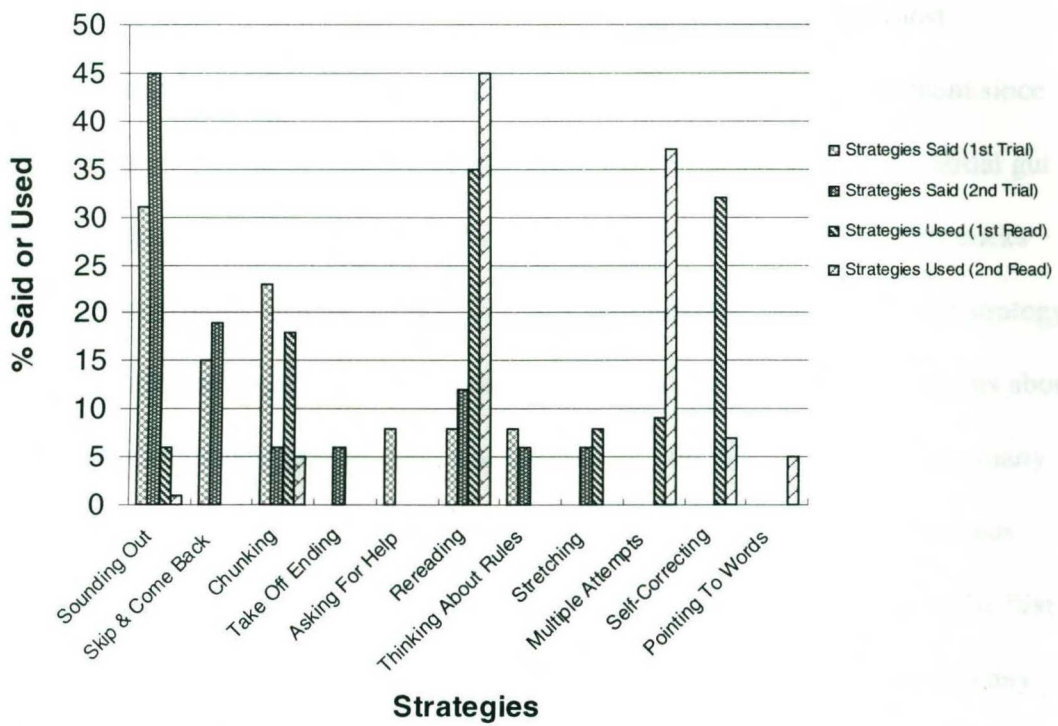

Figure 5. Strategies said versus strategies used for the first and second trials.

CHAPTER 5

Discussion, Conclusions and Recommendations

The researcher accomplished her goal of finding out what strategies students use when they are problem-solving a word through both questioning them and observing them read. It was found that students most often say that they use the strategy of sounding out, while when they read they actually use the strategy of rereading the most. The researcher believes that sounding out was the most prominent answer because it is a strategy that was probably ingrained in them since they first were learning to read. Sounding out is a strategy that can be the initial gut response of a parent or caregiver who is teaching their child to read and that sticks with the child through school, especially when their teachers fall back on the strategy. However, based on the results, the researcher believes that teaching the students about different reading strategies through mini-lessons was not effective. There are many possibilities for why the mini-lessons were not effective. For example, there was only a time period of about five days in which they could be taught between the first and second trials. The researcher also only sees the students for half an hour a day and cannot be in their classroom to remind them throughout the day of the strategies that they had learned during the mini-lesson and thus they are not ingrained in their minds.

The researcher was not surprised to find that most students say that they sound out a word when they encounter difficulty. This could be because the idea of sounding out a word might be ingrained in the students' schema from teachers telling

them to sound out when they do not have a better strategy to give or from parents

who grew up sounding out words telling the students when they are home to do the

same. Hearing students say that they use sounding out as a strategy is in alignment

with Catherine Compton-Lilly's study when she found the same results as the

researcher did.

Conclusion

The implications of these results are that when the researcher talks to students

about what strategies they use when they read, she has to keep in mind that what they

say may not actually be what they use. This same situation is more than likely

present with other students in many other classrooms. If that is the case, then

teachers should take the extra time to sit and read with their students so that they can

truly see what their students are doing when they read. By doing that, they will be

able to determine where the students are weak and strong with their strategies and

find teaching points for them.

As far as the students' metacognition of their strategies, it is something that

has to be taught along side the student. When a teacher is reading with a student, the

simplest thing that they can do is talk about the miscues that are being made. When a

student rereads a sentence, the teacher can stop the student and point out that they

reread and discuss why the student felt the need to do so. The same strategy would

also work with any other type of miscue. Another strategy that can be used to help

students' metacognition would be Yetta Goodman's retrospective miscue analysis.

By going through those processes with a student, they are going to become more

aware of the miscues they are making and why and thus become more metacognitively aware of their reading.

Some of the strengths of the study were that the researcher was familiar with the students that she was working with. They work together on a daily basis, so the students were comfortable working with her and answering her questions. Another strength was that the researcher's method was solid. She made sure that she asked each student the question the same way and went through the questioning and reading process with each student the same way. By doing that, she ensured that some students were not treated differently than others and thus ensuring the reliability of data.

There were several limitations of the study. The most pressing was the lack of time for data collection. From the first questioning to the last reading, including the mini lessons, the researcher only had nine days in which to complete the study. Based on that, the researcher believes that the results that were anticipated in regards to seeing a difference in reading strategies because of the mini-lessons did not happen because there was not enough time for the strategies to become internalized by the students. Another drawback was the lack of sample size. There was only a pool of about twelve students that the researcher could work with and only eight of the students brought back permission forms from their guardians. If there was a larger sample size, the results of the research could have been different or more solidified. Lastly, since the researcher was not the students' regular classroom teacher, she was

not able to observe their reading outside of the literacy specialist's room to reinforce the strategies that were being taught during the mini-lessons.

Some recommendations for future research would be for teachers to look at their own classrooms. Look to see what strategies their students are using and ask themselves if they are good ones or bad ones. How can they reinforce the good ones and change the bad ones? Are their students really doing what they say they do? When given enough time to practice and reinforce good strategies, the researcher believes that students would internalize those strategies and begin to use them on their own to become effective readers. This will happen through the student discussing their miscues with a teacher and seeing what kinds of miscues they are making for different reasons as Yetta Goodman has proven with retrospective miscue analysis (Moore & Brantingham, 2003).

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APPENDICES

Appendix A. Running Record Symbols and Marking Conventions

Reading behavior	Marking convention	Example
Accurate word reading	✔ above each correctly read word.	✔ ✔ ✔ The brown fox........
Substitution (one error if not self-corrected; record one error regardless of the number of incorrect substitutions)	Write each word attempted above the actual word.	✔ brave ✔ The brown fox........
Omission (one error)	— (long dash)	✔ — ✔ The brown fox........
Insertion (one error)	Λ at point of insertion with the inserted word above it	✔ little ✔ The brown fox........
Repetition of one word (no error)	R (one repetition) R2 (two repetitions) R3 (three repetitions)	R The brown fox........
Repetition of phrase (no error)	R with line and arrow to the point of where the reader returned to repeat.	R The brown fox........
Self-correction (no error)	SC after the error to indicate child has corrected error.	brave/SC The brown fox........
Intervention / student confused and unwilling to try again (one error)	Write TA if you need to tell student to "try again" and point to where he or she needs to try again. Place brackets around part of the text that the child had to try again.	TA [The brown fox]........
Intervention / unable to read a word (one error)	Write T above word if you tell the child the word after a 5-10 second wait.	T The brown fox........
Beginning sound (no error)	Mark the beginning sound above the word if the child says it first, then a (check) if he or she follows with the correct word.	b/✔ The brown fox........

50

Appendix B. Mini-lesson #1 – Using the Bookmarks

The objective is to reinforce the different strategies that students can use when they are reading and they come to a word that they don't know. The lesson should take around fifteen minutes. When the students come in, have the word "oleomargarine" on the chalkboard in magnetic letters (spelled out in both lower and uppercase). When they are seated, hand out the bookmarks with the different reading strategies on them. Introduce the bookmark by saying that they are going to be using it in your classroom for when they are reading so that they can remind themselves of the different strategies that they can use. Ask a student to read the first strategy from the bookmark (Look at the picture). Hang up a picture of an unwrapped stick of butter on a plate. Ask if the picture is going to help them figure out the word. They may try to figure out what the picture is of, and if they do, they may say that the picture would help them. Do not tell them the word yet. Try to get through each strategy before telling them what the word is. Go through the rest of the strategies with the word on the board and talk about which ones might help the class to figure out the word.

For the second strategy (Skip and go on), write a sentence on the board with the word in it (I had oleomargarine with my breakfast this morning.). Have a student read the strategy from the bookmark and then read the sentence yourself from the board without saying oleomargarine (either replace it with "beep" or say nothing).

Next, have another student read the third strategy from the bookmark (Chunk it) and have either the same student or a different student come up to the board to

physically break apart the magnetic letters into smaller chunks. Ask the class if that helped them to see the word in smaller, more manageable parts.

Have a student read the fourth strategy (Make the first sound). Call on another student to make either the sound of the first letter or the first sound chunk. Explain that this is a strategy that very young people who are just learning to read use and that should not be using this strategy very often.

For the fifth strategy (Reread it), have another student read it out loud. Explain that this could mean reading either the word over or the whole sentence over. This will help them to think about how the word is going to fit into the sentence and help with the meaning.

Next, have another student tell the sixth strategy (Stretch the sounds) to the rest of the class. Explain that this would be the next step after chunking the word. Have a student say each of the chunks separately and then connect the parts so that they can still hear each part, but they are linked.

Next, have a student read aloud the seventh strategy (Take the ending off) and ask the class if there is an ending to take off of the word, which there isn't. Explain that sometimes there is and sometimes there is not. Tell examples of different endings that can be taken off (-ed, -ing-, -s, etc.) and still have a whole word left to read.

Have a student read the next strategy (Point to the words) and have a student read the sentence out loud from the board. As the student is reading the sentence, point to each of the words. Explain that this strategy is to make sure that you are

saying the same number of words that you are reading. Also mention that this strategy will not help with every word, like the one on the board.

Lastly, have a student read the last strategy from the bookmark (Ask for help). Say that this should be the last resort for them to use as a strategy. Explain that they should try all of the other strategies on the bookmark before asking someone else for help. Call on a student to demonstrate the last strategy by having them raise their hand and asking the teacher what the word is. This is when the teacher will finally tell the class what the word on the board is.

Wrap up the mini-lesson by explaining that the students can use the bookmarks anytime that they are in the reading room. Also explain that you expect them to be thinking about the different strategies that they can use anytime while they are reading. They should have time after the mini-lesson to read and practice the strategies that have just been reviewed.

Appendix C. The Bookmark

When I am stuck on a word, I can ...

tree — Look at the picture

Skip and go on

catch — Chunk it

"b----" Make the first sound

Reread it

Stretch the sounds
s-t-r-e-tch

played Take the ending off

Point to the words

? Ask for help

54

Appendix D. Mini-lesson #2 – Does it…?

Start the lesson by quickly reviewing how to use the bookmark from the first lesson and how it is there to help them remember the different strategies that they can use when they are reading. Next, place the Does it…? poster on the board at the front of the room. Introduce the poster as a resource for other strategies that they can think about when they are reading. Tell that class that good readers think about these questions when they read to make sure that they understand what they are reading. These questions can also help them figure out an unknown word.

Go through each of the questions and explain what they mean. For "does it look right?" explain that the words they are saying should look like what they would expect to see written on the page. For something to sound right, tell them that it should like talking, or how it would sound if someone was speaking it to you. Lastly, what they are saying should make sense in the sentence and in the text.

Next, write a sentence on the board ("I was very scared") and then say the sentence out loud with a miscue ("I was very sacred"). The students should notice that what you said does not match with what was written. Have the class ask each question on the poster in regards to the miscue and have them answer why it doesn't work.

As a follow up, have a student write their own sentence on the board and then make a miscue while saying it. Have the class go through the same process of asking each of the questions to explain why the miscue does not work in the sentence.
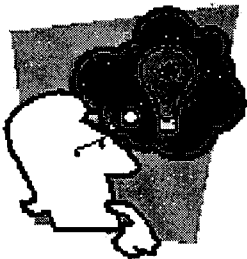
Appendix F. Mini-lesson #3 – Using the Strategies

Hand out the bookmarks from the first lesson and hang up the poster from the second lesson. Explain to the class that they are going to be practicing using the strategies that they have been learning about. Hand out the Word Solving Strategies worksheet and tell them that they will be working together with a partner to complete the assignment. Once every group has a worksheet, go over the directions together. Tell them that they are going to read some sentences that may have a word in it that they don't know. That word is going to be underlined and in bold print. There will also be a picture clue that may or may not help them figure out what the word means. On the line below the picture, ask the students to write down the strategies from the bookmark or poster that they used to figure out the word.

When they have completed the assignment, have the class share out what strategies they used for each of the sentences. If there are different strategies being used, ask them to explain how they used a particular strategy to figure out the word. When everyone is done sharing, reiterate that they can use these same strategies during their own reading to help them with words they don't know.
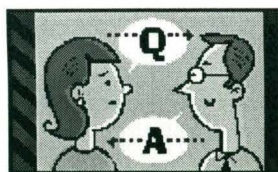
Appendix G. Using the Strategies Worksheet

Names: _____

Word Solving Strategies

Directions: Use your bookmark and your good reading strategies to figure out the words in the sentences that are in bold and underlined. Then write what those strategies were on the line underneath the picture.

"It's not good to make **assumptions** when you don't know all the facts."

What strategy did you use to figure out "assumption"?

_____

"The royal wedding was a very **ceremonious** occasion with everyone being formal and polite."

What strategy did you use to figure out "ceremonious"?

_____

"When I saw my friends having a wild snowball fight, I just had to jump into the **foray**."

What strategy did you use to figure out "foray"?

_____

"The wall around the castle was totally **impermeable** to even the most powerful weapons."

What strategies did you use to figure out "impermeable"?

_____