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## Comprehending through metacognition: A teacher resource guide for grades four through high school

Peggy Sue Becker

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COMPREHENDING THROUGH METACOGNITION:

A TEACHER RESOURCE GUIDE

FOR GRADES FOUR THROUGH HIGH SCHOOL

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A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
in  
Education:  
Reading Language Arts Option

---

by  
Peggy Sue Becker

June 2000

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A TEACHER RESOURCE GUIDE

FOR GRADES FOUR THROUGH HIGH SCHOOL

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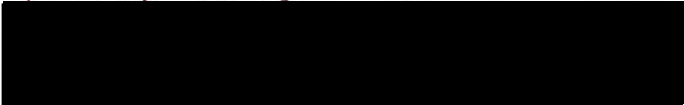
by Peggy Sue Becker

June 2000

Approved by:

  
Joe Gray, First Reader

5/17/00  
Date

  
Heidi Gussiaas, Second Reader

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## ABSTRACT

The teaching of reading in today's schools is a controversial topic with opinions being expounded by researchers, politicians, educators, and parents. Students who are at risk of failure due to reading challenges are of great concern to teachers and parents. Typical questions teachers find themselves asking include: What are the best methods to teach reading? What about comprehension? What are the most effective strategies to motivate struggling readers to read and to make reading enjoyable for them?

The research section of this project contains answers to the previously stated questions and provides the reader with theory and practice in the field of reading comprehension. The theoretical beliefs and practical applications of distinguished researchers in the fields of Reading Education and English are discussed in length. Seven strategy studies for teaching comprehension are explained, as well as motivational techniques to engage students to interact with text.

The project section is divided into two parts. Part one contains lesson plans that focus on the process of comprehending and part two contains lesson plans that focus on the product of comprehension. Both parts provide the reader with valuable strategies that address the needs of struggling readers in reading comprehension.

## ACKNOWLEDGMENTS

In appreciation to those who have inspired, supported, and guided me. Many thanks to Professor Joe Gray, Heidi Gussiaas, and my husband Damon.

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## CHAPTER 1: INTRODUCTION

The teaching of reading is a multifaceted challenge for today's teachers. Simply put, the challenge is to teach students to decode words and to get meaning from the words they read. In the district where I am employed, San Bernardino City Unified School District (S.B.C.U.S.D.), there is a major emphasis towards early literacy learning and interventions in grades one through three. There are numerous programs and inservices available to teachers in S.B.C.U.S.D. in the primary grades. A few of the programs include San Belt Training, Reading Recovery Training, and a series of intensive reading instruction workshops. At the upper elementary and middle school level, the S.B.C.U.S.D. has provided the Consortium On Reading Excellence training. These programs are designed to assess reading levels and provide diagnostic information to meet individual student needs. As students move into the upper elementary grades 4-6, middle school, and high school, they are faced with new reading challenges. Students must be able to understand and get meaning from a variety of fiction and non-fiction texts. At this level these texts have a different "look" than those to which students were exposed in the primary grades. That different look comes in the form of expository text, information text that students may be assigned to read in

class or for homework. The fiction texts that students are required to read also look different than those read in the primary grades. The texts have fewer pictures, more difficult vocabulary, and are of greater length. Some students are able to successfully make the transition from what is required for them to read and comprehend successfully in the primary grades, to the new strategies needed for comprehension at the upper grades and beyond. However, there are a group of struggling readers who have a great deal of difficulty making this transition. They do not understand what they read and will often experience frustration and failure. These are the students I have the greatest concern for and are the focus of this project.

As a Resource Specialist in Special Education and a Reading Support Teacher trained in Reading Recovery, I have helped to design and implement reading programs at the elementary through secondary levels. I have provided inservice training in reading and comprehending strategies to teachers of upper elementary through high school students. I have also collaborated with teachers in the Gateway Alternative Program for high school dropouts to help implement programs that would improve the reading level of these students. One common problem that teachers at these grade levels struggle with is students' inability to

actively monitor their comprehension while they are decoding text.

When I asked my daughter, a Middle School straight A student, questions about what she does to help her understand what she reads, she thoughtfully gave me fifteen strategies. These strategies ranged from breaking the sentence into parts and thinking about the meaning of each part, to thinking about the story and what is already known about the theme or topic. I then asked her if she ever remembered any of her teachers talking about what to do when you do not understand what you read. She replied in the negative.

I believe that struggling readers, especially in the upper grades and beyond, are not aware of and do not know how to appropriate a stock of strategies that they can use to help them understand what they read. Beck & McKeown's study on eighth grade students' learning of American history used interview questions to ask the students what they had learned (as cited in Beck, McKeown, Hamilton, and Kucan, 1994). One student, Jennifer, responded as follows, "I don't really remember this too well; I don't know why. We always learn about this and I always forget. I don't know why I don't remember. It's pretty embarrassing" (p. 66). Many teachers don't actively expose students to a variety of comprehending strategies. This absence of teaching of

specific comprehending strategies may have its basis in the teachers' theoretical orientation about how language works and how reading is taught. This belief system strongly influences the day to day decisions related to both the teaching and learning of reading.

Weaver (1994) explained that most reading instruction is based on one of three views. View one could be called the phonics or sight word approach, "learning to read, means learning to pronounce words" (p. 15). One way to do this is by saying a sound for each letter or chunk of letters and then blending the sounds together in an attempt to pronounce a word. Looking at a word as a unit and pronouncing it can also do this. Frank Smith (1997) stated, "the spelling to sound correspondence of English are so confusing that in my judgment children who believe they can read unfamiliar words just by 'blending' or 'sounding them out' are likely to develop into disabled readers" (p. 46). I do not believe that the phonics or the sight word approach to teaching reading is the best method of instruction to use to teach beginning readers. Furthermore, I believe this approach will confuse and discourage struggling readers and inhibit comprehension.

Frank Smith (1997) found that comprehension was getting lost in the bottleneck of the short-term memory of the moment. He found that students concentrated so intently on

getting individual words right or they were fearful of missing a significant detail that they lacked understanding of what the text was about.

View two of Weaver's (1994) three views of reading instruction could be called the skills model, "learning to read means learning to identify words and understand their meaning" (p. 15). Weaver continues by saying that some people, while rejecting the first view of reading as inadequate, adopt the second view assuming comprehension is achieved by identifying words and understanding their meaning. This view implies that once each word is identified, the meaning of whole sentence and text will immediately follow. This view might work, thus producing comprehensible sentences if each word in the English language had only one meaning. The following example from Frank Smith (1997) clearly illustrates this point. "There would be no difference in meaning between a Maltese cross and a cross Maltese, or between a Venetian blind and a blind Venetian" (p. 60). I believe there is more to understanding a sentence than putting together the meanings of each word. Even if the new vocabulary for a particular sentence or passage were introduced prior to reading, the meaning of the text would not necessarily be clear to everyone. So how do students get meaning from what they read? Smith states the

answer lies beyond mere words. He states that the answer is that in reading and listening, the meaning must come first.

My theoretical orientation toward reading instruction is based on the whole language model of reading. Weaver (1994) explains this orientation with the statement of the third view of reading instruction when she states, "that meaning results not necessarily from the precise identification of every word in a sentence, but from the constant interplay between the mind of the reader and the language of the text" (p. 15). According to Weaver (1994), a more technical term for this "holistic" approach is the socio-psycholinguistic approach. This approach draws upon the individual's unique constellation of prior knowledge, experience, background, and social context. In this view, the focus of reading is always on comprehending.

The instructional decisions I make daily as I teach reading are directly influenced by my own theoretical orientation. I believe that instruction starts with what the student knows and is built upon his own language systems, his own thoughts and his perception of the world around him. For the purpose of this paper, comprehending is defined as the active, ongoing engagement of the reader with the text. It is a process that involves readers' ability to monitor their own thinking processes. The interrelated strategies, which will be discussed in the literature

review, along with affective factors such as motivation and ownership, work together like spiraling coils to produce a product, comprehension. Comprehension is the product of all the thinking processes and requires the appropriate activation of strategies. Comprehending, making meaning from text, is not an automatic process for struggling readers. As I work with struggling students, I first must consider what interferes with these students' ability to comprehend.

Many teachers initially equate students' comprehension of a text with their ability to answer a set of comprehension questions at the end of a chapter or study guide. When these same students are called on in class to discuss the ideas they supposedly read about in the text, they are unable to intelligently or rationally exchange views and information. When this lack of comprehension takes place, the teacher may think that these students may have learning problems. If students are told they have learning problems, they will believe it and act accordingly (Smith, 1997).

Struggling readers do not perceive reading as an interaction with text. They work hard at decoding text but do not understand what they have read. They are not using specific strategies for comprehending and have a misguided understanding of what reading is all about. Just as there

are specific strategies for decoding text, there are also strategies that students use for comprehending. Smith (1997) stated, "A common characteristic of poor readers in High School is that they read as if they don't expect what they read to make sense as if getting every individual word right was the key to reading" (p. 28). Comprehension of the text that does not come from exact identification of every word in a sentence, but from the ongoing interplay between the mind of the reader and the language of the text (Weaver, 1994). This comprehending occurs as readers internalize what they read. The reader's recall, inference, and interpretation of text results in comprehension.

Students need to feel connected to the text. Teachers who provide connections from the learners' own experiences to the material being presented will engage students actively in their own learning. When these connections do not occur, students experience a real lack of motivation, and do not actively engage in building comprehension for themselves. The challenge for teachers is apparent, how to actively engage students in their own learning.

One way to engage students is to give them "invitations" to read books they are interested in as a regular part of their reading experience. Choice is the battery that activates the successful reading process. Students who are given a choice to read one book over

another begin to feel ownership of their own literacy process. They will be willing to take risks, such as working at making sense of what they read instead of just giving up (Short, Harste, & Burke, 1996). One essential strategy to help students make sense of what they read is for them to actively think about what they read as they are reading. This strategy is called think-alouds. Students will be more aware of how to think when reading as teachers provide think-aloud models for them. Modeling is an essential step in helping students observe and then use the mental processes used by proficient readers (Keene & Zimmermann, 1997). The goal is for students to be aware of when they are comprehending and when they are not. The awareness of the thinking process is called metacognition.

Metacognition, thinking about one's own thinking, is essential in teaching comprehending strategies. Regular modeling by teachers of their own thinking will assist students as they work at comprehending material they read independently or text they listen to orally. Thinking out loud provides an excellent mental model that will assist students as they internalize the comprehension process. When strategies are internalized, they become automatic, thus increasing the struggling readers' school success.

As a teacher of reading, I am committed to assisting struggling readers as they work at making meaning from text.

As a mother with a son who has a specific learning challenge, I am deeply committed to investigating the best comprehending practices. For the purpose of this project, my focus will be concentrated on the research based methods for teaching comprehension to struggling or "at-risk" students in grades four through high school.

## CHAPTER 2: LITERATURE REVIEW

Reading comprehension is a complex process. When studied from a variety of perspectives, many unique aspects become evident. Reading researchers and theorists have been actively developing models of the reading process throughout the twentieth century. These models are based on insights from linguistics, psychology, and anthropology, as well as the social nature of learning. These models provide insight and are helpful in answering the following questions:

How do people read? How do people learn to read? What text features and instructional features affect reading and learning to read? What are the human factors concerned with social, political, linguistic, and pedagogical issues that affect reading and learning to read? What is the nature of literacy in our culture and does this impact reading and learning to read? (Goodman, Watson, & Burke, 1996, p. v)

As educators discuss different models of reading and examine their own reading instructional practices, they will make decisions about their own reading instruction. These decisions are based on their own theoretical beliefs of how people learn to read. This process is not static. It is constantly being refined as teachers read and discuss current research with their colleagues and observe and interact with students in the context of the entire reading process. Teachers construct their own meaning of reading

acquisition and make daily instructional decisions, focusing on the students they teach.

Teachers are concerned about reading comprehension, making meaning from what is read and discussed, and are asking questions about the nature of literacy in our culture and how they can impact learning to read in the classroom setting. The questions being discussed in this literature review include the following:

- How does metacognition impact comprehending?
- What instructional practices and strategies influence reading comprehension?
- How does motivation affect literacy learning and student attitude?

Current research indicates that the readers' focus must always be on constructing meaning for themselves. This is done by using their own knowledge in transaction with the text. Transaction is the term used to describe the change that takes place in readers when they actively engage with a text (Goodman, Watson & Burke, 1996). Engagement with text is something that proficient readers do automatically and purposefully. They engage in metacognitive thinking; they are aware of their own comprehension. Keene & Zimmermann (1997) states, "Metacognition is a turning inward, purposely at first and automatically thereafter, to re-examine our processes of comprehending, changing interpretations of the

text and our reflections in order to elaborate and deepen our own understanding of a text" (p. 43). Proficient readers use a plan or specific strategies as they read. These readers may not even be aware of how they are able to comprehend or what strategies they use because the process has become automatic. Less proficient readers who struggle with making sense out of what they read, do not think about their own thought processes while they are reading. They aren't reading in a critical, analytical, imaginative, or probing ways (Keene & Zimmermann, 1997). Thinking about ones' own thinking while reading and using the strategies that form the metacognitive foundation are directly linked to reading for meaning. Struggling readers do not read metacognitively and do not use strategies that would enable them to read with understanding. This metacognitive thinking process can be modeled by teachers and strategies can be taught as a part of daily reading instruction.

Strategies, simply put, are plans that people use as they work at accomplishing a goal. When thinking about comprehending and the strategies used to make sense of what is read, looking at what proficient readers do when they read will provide insight into the strategies that struggling readers lack. Once these strategies are identified by teachers, they can be taught explicitly as

part of daily reading comprehension instruction. Weaver (1994) defines comprehension as:

Reading comprehension is a process that involves the orchestration of the reader's prior experience and knowledge about the world and about language. It involves such interrelated strategies as predicting, questioning, summarizing, determining meanings of vocabulary in context, monitoring one's own comprehension, and reflecting. The process also involves such affective factors as motivation, ownership, purpose, and self-esteem. (p. 44)

Proficient readers use strategies as inter-related parts of a holistic process for constructing meaning. Current researchers use a variety of terminologies to identify a multitude of strategies. Whatever term used for a specific comprehending strategy, the central concept remains constant in the study and application of reading comprehension. In this review of literature, metacognition will be discussed further, followed by the identification and explanation of seven strategy studies.

According to Flippo (1998), in his article, Points of Agreement: A Display of Professional Unity in Our Field, the experts agreed on a majority of the contexts and practices that would make learning to read easier. One such practice, paraphrasing and summarizing, allows learners to become consciously aware of what they read as they are reading. This metacognitive probing "helps learners think about how they arrived at an answer, or how what they read influenced their personal understanding" (p.36).

The practice of learners using techniques that help them become consciously aware of what they do as readers is many times automatic for proficient readers. However, struggling readers greatly improve their comprehension when explicit strategy instruction is taught through strategy studies.

Metacognitive knowledge is defined by Flavell, Miller, and Miller as, "the ability to evaluate whether the strategy that one is using is producing progress toward a goal" (as cited in Ciardiello, 1998, p. 212). The goal is comprehension of whatever oral or written information in which students are engaged. The question at hand is, how do teachers know when students are comprehending? The answer to that question involves a change of focus of how comprehension is taught. Showing apparent evidence of comprehension through correctly answered questions, summaries, or restating information is not showing the process of comprehending, but only a glimpse of a product of comprehension. The focus of this paper is on instruction (strategy studies) of the mental processes that underlie reading. These seven strategy studies include:

- The reader's ability to recall or activate prior knowledge while reading.
- The reader's ability to decide what is important and what to pay attention to in a text.

- The reader's ability to use questions to clarify meaning and delve deeper into text.
- The reader's ability to spontaneously and purposefully create mental images as they read.
- The reader's ability to create a personal meaning from the text.
- The reader's ability to cognitively synthesize information as they read.
- The reader's ability to solve word and comprehension problems as they occur.

All seven strategies can be taught explicitly in the course of daily reading instruction. Each strategy is introduced by teacher's modeling their own thinking as they work at using the strategy with text. Activities that engage students in the practice of the strategies can be introduced. The think-alouds serve as a model of the thinking process of a proficient reader. This model is an essential component for struggling readers because it allows them to hear and to begin connecting some aspects of the modeled thinking process to their own thinking. Daily repetition of the think-alouds in the course of strategy instruction with a variety of text will provide the model needed by struggling readers. The goal is for struggling readers to practice the same thinking and strategies that proficient readers use.

### Activating Prior Knowledge

The first strategy considered is the readers' ability to recall or activate prior knowledge while reading. Proficient readers think about what they already know about the text, what prior experiences are similar to those in the text and what personal connections they can make to the text. They activate their own schema which is their prior knowledge and experience to a text. Students' schemas are constantly changing as new information is added to their mental files. This new information will forever alter their prior knowledge (Keene & Zimmermann, 1997).

Relating unfamiliar text to prior knowledge connections generally take three forms. Keene describes these three forms as, "Text-to-self connections, text-to-text connections, and text-to-world connections" (p. 55). A text-to-self connection happens when the text makes the reader think about his own life. This connection can happen through the words of the story or the illustrations. When students realize they can identify with a character in the story, or a place, event, or theme, they make connections that produce a level of comprehension.

A text-to-text connection happens when the text reminds the reader of other books they have read, book with similar characters, themes and/or ideas. These text-to-text connections enable students to see common themes and styles

among authors. They will no longer view the story in isolation, but will realize its connection to other books and stories.

A third connection, text-to-world, occurs when students connect the story they're reading to some kind of experience or information they have been exposed to in the world around them. This can be information from television, videos, or conversations with adults or students. These connections of world knowledge to text contribute to understanding the story more thoroughly as well as changing the students' schema of world knowledge (Keene & Zimmermann, 1997).

Goodman et al. (1996) suggests that readers use strategies based on their purpose for reading. They build meaning for what they are reading by integrating new information with their existing knowledge (prior knowledge) and schema.

Proficient readers consider their purpose for reading, for pleasure, for information and how much of that information needs to be remembered. The readers then consider the relationship of what they are reading to their view of the world. They look at how the new information fits into their own belief system. They then agree, partially agree, or reject the information. This new information is integrated into their schema which is always in a state of change as they make connections to the text (Goodman et al., 1996).

Dowhower (1999) describes a prereading activity where the teacher determines with students what is already known about the content, structure, and main ideas of the text to be read. The teacher also checks for students' understanding of what a strategy is and explains how that strategy used can increase understanding of what is read. The teacher then helps the students build bridges from the known to the unknown through questions, statements, and activities.

#### Attending To What Is Important

Once students' prior knowledge is activated and they begin to build connections to the text, a second comprehension strategy can be introduced. This strategy deals with deciding what is important and what to pay attention to in a text. Keene & Zimmermann (1997) explain the strategy to students by stating:

When great readers are reading this stuff that has so many ideas in it, they have to listen to that mental voice tell them which words, which sentences or paragraphs, and which ideas are important. Otherwise, they won't get it. Great readers really listen to the voice saying 'I think this word or this idea is most important.' Then they're able to decide which ideas are most important in the piece. (p. 86)

As proficient readers read, they make decisions about what is important in a text on three levels; the whole-text level, the sentence level, and the word level (Keene & Zimmermann, 1997). Word-like nouns and verbs are more important to the overall meaning of the text than other words in a sentence. Eye movement studies indicate that proficient readers tend to focus longer on the nouns and verbs as they read. Linguists call those key words *concentives* (Keene & Zimmermann 1997). Keene states, "concentives are words that hold the meaning in any sentence, given the overall meaning of that sentence in the passage being read" (p. 87). At the sentence level, key sentences are often found to be in bold print, at the beginning or end of a passage or referring to a table or graph. At the text level, the important ideas and concepts may change for the reader after several rereadings, or writing about the passage (Keene & Zimmermann 1997).

When teaching the strategy of what information is most important in a text, careful selection of the fiction or non-fiction piece is imperative. It is easier for a struggling reader to practice the strategy with what reading theorists define as *considerate* text. Text is *considerate* when it is written in a predictable way taking into consideration the intended audiences' probable background. Fiction is usually a more *considerate* text due to the rise

and fall of action and the predictable resolution.

Inconsiderate text is not a reader-friendly text. It is written in such a way that makes it difficult for its intended audience to understand (Keene & Zimmermann, 1997). Non-fiction or expository texts are often written in just that way. This type of text often gives inadequate explanations of information, and are written in such a way that assumes background information that students do not have (Beck, Hamilton, Kucan, & McKeown, 1998). This is a particular problem as students make the transition from fictional texts in elementary school to the more challenging expository texts in the middle school. While it is true that the skill and ability of readers can determine if the text is considerate or inconsiderate for them, the considerate texts are best to use with struggling readers when initially teaching the strategy. As readers become more proficient at recognizing what is important in a considerate text, they can use the same strategies with inconsiderate text.

Proficient readers make instantaneous decisions of what information is important at the word level, sentence level, and whole-text level. These decisions are based on their purpose for reading. Teaching struggling readers the strategy of what information is and what information should be remembered, starts with teacher modeling. A teacher can

think out loud and give readers a look at what information they consider to be most valuable according to their purpose for reading in any given text.

Another aspect of this strategy study deals with the teacher discussing with the students which information is not important and why it is not important in a text. This aspect can sometimes provide a clearer picture for a struggling reader and assist him as he focuses on what is important in a text.

#### Delving Deeper with Questions

As proficient readers are building connections to a text by deciding what information is important, they are also asking questions as they read. Using a third strategy, the questioning strategy, students construct meaning for themselves by interacting with the text through questions that help them clarify meaning. The self-imposed questions can be directed toward the content or format of the text or to speculate about the author's intent.

Beck et al. (1998), explain the Questioning the Author approach. "The QtA is designed to get students to build understanding of text ideas by becoming actively involved as they read, by diving into difficult information and grappling to make sense of it" (p. 67). Students at the middle school through high school level are often asked to read the chapter of an expository text and then answer the

questions at the end of the chapter. Although they may be able to answer the questions and even recall the information when taking a chapter test, most of the information is forgotten in a relatively short period of time. They are not interacting with the text and are not using any questioning strategies as they read. The QtA method teaches students to read a text, a little at a time, idea by idea. As students read the text, the teacher can ask "Queries," (probes to prompt discussion) that focus student thinking (Beck et al., 1998).

Good questions will assist students to focus their thinking. But what is a good question? According to Simpson (1996), the questions that are most useful are the ones that enhance "critical literacy." Those questions are the ones that students ask themselves. "When children seek their own answers to their own questions about books, they become more conscious of how texts work upon them and less susceptible to manipulation by what they read and view" (as quoted in Bloem & Mann, 1999, p. 803).

Keene and Zimmermann's (1997) questioning strategy begins with teachers reading out loud and then modeling their own unspoken questions. This will help students become aware of the questions they naturally have as they listen to or read text. The questions are listed on butcher paper before, during, and after reading or listening to a

book or story. Keene's questioning strategy strives to show students how to ask their own questions to help them clarify meaning of the text. The teachers' job is to model their own thinking repeatedly throughout the strategy study and then slowly transfer the responsibility of asking questions to the students.

Proficient readers automatically generate questions in their minds before, during, and after reading. Struggling readers may not be aware that asking questions may deepen their understanding of a text. Many times their biggest concern is being able to answer the questions being asked of them. Once struggling readers are aware of the questioning strategy and have ample opportunity to practice it, they will realize the real power they have with reading. The process of asking questions is a skill that can be transferred to students' other academic areas as well as to personal areas of their lives.

#### Creating Mental Images

The fourth comprehending strategy being considered is the practice of the reader creating vivid images, or pictures in his mind while reading or listening to text. Keene and Zimmermann (1997) found that, "Proficient readers spontaneously and purposefully create mental images while and after they read. The images emerge from all five

senses, as well as the emotions, and are anchored in a reader's prior knowledge" (p. 141).

Struggling readers are not spontaneously creating visual images as they read. These readers may be paying more attention to decoding text and "getting through" with what they are reading than they are with actually understanding what they have read. According to Gambrell & Jawitz's study, research reveals that readers who are able to use imagery to aid their understanding show increased reading comprehension (as cited in Opitz & Rasinski, 1998). The ability to use imagery, to create images, also enhances readers' abilities to construct inferences and make predictions.

Proficient readers may practice the strategy of creating mental images while reading a challenging fiction text, or a non-fiction text on an unfamiliar topic. The images that surface as they read are impressed on their minds and aid in understanding the whole text. By rereading, writing about, or discussing the text, additional images may come to mind that will enhance the overall meaning (Keene & Zimmermann, 1997).

The strategy study begins in the same way that the previous studies began, with teachers modeling think-alouds. As teachers read texts that lend themselves easily to visual images, they 'stop' often and verbalize the images the text

produces in their minds. The more detailed the images, the better able the students are to understand the strategy. It is important to include sensory images from the tasting, hearing, touching, and the smelling realm, as well as the visual.

Proficient readers will focus on the part of the text they consider the most important and try to create visual images of that part. These images often come from their emotions and include their prior knowledge and experiences. In order for struggling readers to internalize this strategy, creating visual images, teachers will consistently model their own thinking over a period of time while gradually releasing the responsibility to the students.

Creating visual images is a strategy that can assist struggling readers with oral as well as written material. The practice of this strategy will aid in a reader's enjoyment and understanding of both fiction and non-fiction material.

#### Creating Personal Meaning

The fifth comprehending strategy of creating personal meaning from text can also be explained as the process of creating personal meaning through inferences. Keene and Zimmermann (1997) describe inferences as:

Inferring is a tool we use to go beyond the text, to leverage prior knowledge and create connections among

various details and concepts we have learned, to draw conclusions based on the text and our full array of like experiences and knowledge. (p. 152)

Teaching students to create inferences begins with teachers' abilities to analyze when and how they make inferences in their own personal reading. Teaching students to infer is about much more than teaching a definition of what inference is. The journey begins with teacher modeling. Teachers first model their own thinking process while reading a story of interest to them. When they find themselves inferring, they stop and analyze what they are actually thinking about and model that thinking process out loud for students.

Teachers can often be discouraged by students comprehending only literal information from a text. However, when teachers create the proper context for discussing the meaning of any genre, inferential meaning can result for students. This context includes time for students to discuss, argue, reflect, ponder, restate, persuade, relate, write about, or interact with the information teachers consider critical for them to comprehend (Keene & Zimmermann, 1997).

Deciding how to use teaching time most effectively has always been a challenge for teachers. However, by creating learning situations that invite students to interact with a

text by inferring, teachers will have given students a tool to use with all their reading experiences.

There are different types of inferential reasoning. Jewel and Pratt (1999) found in their study of literature discussions in the primary grades, that inferential reasoning was seen as a prevalent factor in the discussions. The students in the study were able to make deductions. Jewel and Pratt defined deductions as "inferences drawn from information not explicitly stated in the text but provable" (p.847). The students were also able to make speculations from the material they read. Jewel and Pratt defines speculations as "inferences that are not exactly provable, but have a high degree of plausibility in the context of a story" (p. 848). Jewel and Pratt (1999) also found in the analysis of the transcriptions of the literature discussions that students think about text in different ways as they read and listen to what their peers have to say. Giving students invitations to create inferences and opportunities to practice this strategy in a variety of contexts allows them the freedom to take risks and freely respond to literature.

Keene and Zimmermann (1997) believe that inferring has many facets and that reading great books allows teachers and students to use them all. The following list includes some of the many facets that inferring can be:

- A conclusion drawn after considering what is read in relation to one's beliefs, knowledge, and experience.
- A critical analysis of a text.
- A mental or expressed argument with an author.
- Synonymous with learning and remembering.
- The process of taking that which is stated in text and extrapolating it to one's life to create a wholly original interpretation.
- Predicting what has been stated in the text.
- The creation of personal meaning. (p. 153-154)

Proficient readers infer to create personal meaning from text. This meaning is not explicitly stated in the text, but is a combining of prior knowledge and the reader's unique interpretation of the text. Many times struggling readers have difficulty looking beyond the literal meaning of text. They do not use the inferring strategy and often miss out on experiencing and participating in reading discussions. Struggling readers certainly are capable of applying the inferring strategy once they are provided with the think-aloud modeling and given ample time for practice with teacher guidance and support.

#### Cognitively Synthesizing Information

Synthesizing information from a text goes beyond a retelling and a summarization of the information read. According to Keene and Zimmermann (1997), synthesizing takes the traditional concept of summarizing to a whole new, more encompassing level. Synthesizing is a natural part of everyday life experience. When children talk to their

parents about what happened at school on a particular day, they are able to relate the most important information, disregard the irrelevant information, and create a personal interpretation of what went on at school. They are synthesizing the events of the day without consciously thinking about what they are doing.

The cognitive process of synthesizing for proficient readers occurs naturally during and after reading. Keene and Zimmermann (1997) describe how proficient readers synthesize information during and after reading. During reading, proficient readers:

- Monitor overall meaning, key concepts, and themes.
- Are aware of text elements and patterns in fiction and non-fiction.
- Actively revise their cognitive synthesis as they read, assimilate new information, and discard useless information.

After reading, proficient readers:

- Use synthesis to critically review what they have read in order to share and recommend the texts.
- Share ideas and themes relevant to the overall meaning of the text.
- Use synthesis to better understand what they have read.

Struggling readers do not naturally or automatically synthesize information as they read. For struggling readers, explicit teaching of this strategy study with

continuous modeling of think-alouds is essential for comprehension. "Syntheses in many ways is an amalgam of all comprehension strategies used by proficient readers" (Keene & Zimmermann, 1997, p. 185). When proficient readers are reading, they are actively using their prior knowledge and make judgments about what to pay attention to as they read. They ask questions as they read and create visual images in their minds to aid their understanding. Proficient readers create personal meaning by drawing conclusions and making judgments. All the previous strategies discussed, as well as the sixth strategy study, the fix-up strategy, which will be discussed later, are part of a basic, but complex strategy, synthesis.

Teaching struggling readers what synthesis is and how to practice it during and after reading may take more teaching time than the other strategy studies. It will, however, assist students in attending to the evolving meaning as they read, and create new ways to think about and share the information with other students.

One key aspect of teaching synthesizing is teacher modeling of think-alouds. It is important to use a wide variety of text, both fiction and non-fiction. Picture books, newspaper, and magazine articles, fiction pieces, and expository texts all can be used in the daily modeling of this strategy. As teachers model, they increase the

complexity of their syntheses, thus encouraging students to observe, participate, and eventually internalize the strategy.

Synthesis is not a static element of reading. It occurs during reading and after reading. It changes as material is reread. Each student may have a different personal synthesis from another student. This is based on the student's prior knowledge, experiences, and background. Keene and Zimmermann (1997) believe that by synthesizing during reading, even in the form of mental notes, material is more likely to be remembered and transferred to new learning situations. In the context of reading instruction, the ability for students to transfer the learning to new situation is an important goal.

According to Judith H. Langner (1997) reading is an act of envisionment-building. She further discusses the metacognitive process taking place by the reader while reading. The reader is making sense, asking questions, developing new insights and understandings while reading progresses. These new insights are subject to modification and reinterpretation, and even dismissal. Langner is describing active engagement of a text by a reader. She describes a fluid changing process that accommodates new information while reading. This is the synthesizing process. Proficient readers cognitively synthesize as they

read, they monitor overall meaning. Synthesis is natural for them as they integrate many other strategies in the process. Struggling readers many times are comprehending at the literal level of the text only. Synthesis can provide the extension for comprehending from the literal to the inferential level. Simply put, Keene and Zimmermann discovered "that synthesis is absolutely basic - in the air and water category - if we are talking about essentials for learning: literacy learning, life learning" (p. 183).

#### Solving Word and Comprehension Problems

Metacognition, thinking about one's own thinking so that one is aware when comprehending is taking place and when it isn't, is an important part of any strategy study. Another part of metacognition is knowing what is needed to be known while reading and how to solve problems when the meaning breaks down. Keene and Zimmermann (1997) explain that, "readers have a well developed arsenal of tools they use flexibly, adaptively, and independently to solve comprehension and word identification problems when they arise" (p. 195).

Some of the tools that proficient readers use for word identification could be listed by asking them, "What do you do when you come to a word you don't know?" Weaver's list (1994) includes:

- Thinking about what makes sense.

- Trying to sound the word out.
- Looking for meaningful word parts.
- Continuing to read, then going back and trying again.
- Deciding if the word is important for meaning.
- Asking someone for help.
- Looking the word up in the dictionary.

Another strategy Weaver discusses that is particularly helpful to intermediate grades and beyond is breaking words into pronounceable syllables, in order to identify written words that already exist in their listening vocabulary.

When proficient readers come to words they don't know, they typically decode them by analogy with known words and word parts. This is an automatic process for them and they do it almost unconsciously. Struggling readers would benefit from teacher demonstration and discussion of word charts, prefixes, suffixes, and roots. When more difficult words are encountered, a mini-lesson may be needed.

According to Kucer (1992), as with any and all strategies, they are best learned when discussed and practiced in the context of authentic reading (as cited in Weaver, 1994).

Keene and Zimmermann (1997) believe that proficient readers are flexible, adaptive, and independent in the use of fix-up strategies to solve word and comprehension challenges. They contend there are six cueing systems that readers rely on depending upon their purpose for reading.

Cueing systems are sources through which the human mind receives information during reading. Keene and Zimmermann's six cueing systems include:

- Grapho-Phonic System: Information and features of letters and the sounds they make.
- Lexical or Orthographic System: Information about words, and their immediate recognition, without meaning.
- Syntactic System: Information about form and structure of language; correct pronunciation of text.
- Semantic System: Information about word and text meaning.
- Schematic: Information from a reader's prior knowledge of the structure of text.
- Pragmatic System: Information about what the reader considers important and what the reader needs to understand.

A simplified version of these six cueing systems used by many classroom teachers today as a part of their reading instruction is:

- Semantic: Does this make sense?
- Syntactic: Does this sound right?
- Graphophonic: Does this look right?

Those three questions may be asked by teachers or students when they come to a word they don't know. At first, teachers model their own thinking as they use a cueing system to solve a word or comprehension problem.

Then as students practice using these systems, the transfer of responsibility from teacher to student occurs and the strategies become internalized.

Struggling readers don't automatically appropriate strategies when they read, whether they are comprehending strategies or fix-up strategies. In the course of strategy study, teachers could assist students in listing possible reading problems and possible solutions. Then during the course of any reading activity, when a reading problem arises, possible solutions could be discussed and listed. One very important way of reinforcing fix-up strategies is to catch students in the act of using them. A discussion could then follow about what strategies were used and why they were used. In the context of discussing all strategies that help readers with words and comprehension problems, it is important to include all the tools that students use. Keene and Zimmermann (1997) state the strategies of "questioning, inferring, synthesizing, determining importance, and activating background knowledge could be pressed into service for solving problems that had to do with meaning of words, passages, and whole text. [Also tools like] decoding, word analysis, and using clues from the context can be used to help when the problem relates to recognition, pronunciation, and word definition" (p. 200).

Fix-up strategies are in essence any strategy used by a reader to solve a reading problem. Struggling readers need many opportunities to hear the modeling of these strategies and lots of time to practice them. They can be taught explicitly as part of a strategy study and/or reinforced as teachers observe readers using them. The most important aspect of strategies is the power they give students to be successful readers as they work at making meaning from text. Successful readers are motivated readers who choose to become lifelong readers.

#### Motivation and Student Choice - Introduction

In the last section of this literature review, the following questions will be discussed: Why is motivation such an essential part of student learning? What are the most effective ways to motivate students according to current research?

In the previous sections of the literature review, seven comprehending strategy studies were listed and discussed at length. These studies provide students with an arsenal of strategies that can be used to aid in comprehending oral and written information of different genres, both in the areas of fiction and non-fiction text. However, one essential piece of the mosaic of learning is missing: how do teachers motivate the struggling readers to

want to try again after they have had numerous failures and lack of success in reading?

The answer to that question lies first with the ability of teachers to accurately assess students not only according to their weaknesses in word identification and comprehension, but also to their likes, dislikes, special interests, and challenges. That is, teachers can make better instructional decisions if they consider each student's unique learning style. When students are given invitations to learn and teachers allow students to guide the direction of their own learning, they will be motivated to invest in themselves, which creates a natural formula for success.

#### Motivation and Student Choice

Frank Smith (1981) comments on how people learn, "Learning is not an occasional event, to be stimulated, provoked, or reinforced. Learning is what the brain does naturally, continually" (p. 108). Learning is a natural process for everyone in varying degrees depending upon ability, experience, and opportunity.

Short and Burke (1991) believe that a learner's world is intact, and that a learner naturally uses curiosity, sociability, and intentionality. These elements work together in a powerful way to bring about motivation. This natural process can, however, be temporarily halted when

outside forces act to constrain or circumvent the natural experience. Those outside forces may include family situations, school and curriculum challenges, or criticism and insensitivity from numerous sources which can destroy motivation. Students give up on themselves and their own learning.

Vogt (1999) lists several facts about readers today.

- 97% of 8th graders don't read for pleasure (Mr. Whirter, 1990).
- Nearly 60% of all adult Americans have never read a single book, and most of the rest read only one book a year (Worwocle, 1992).
- Only about 20% of adults who are able to read do so voluntarily with any degree of regularity (Cramer & Castle, 1994).
- Ten percent of the population accounts for 80% of the books read in the United States (Spiegel, 1981, p. 37).

These statistics indicate that readers today lack the motivation to read. Short and Burke (1991) describe motivation as "a force internal to the natural learning process being functionally intact rather than an external force applied to the learner by someone else" (p. 16). The question remains, when motivation is temporarily halted, what can be done to rejuvenate that internal force?

Goncalo (1999) discusses ways of getting middle school readers to become self-motivated, self-selectors of books. The first tactic was to design response questions for journals directed to each individual student with their knowledge, interests, personality, and spirit in mind. The second tactic was to invite the students to read a wide variety of young adult literature by offering books of particular interest to each individual. The invitations to read came casually and informally from teachers and sometimes from other students. Invitations came in the school hallways, outside the classrooms, and during lunch. Some invitations came from teachers who knew their students well. These types of invitations produced students who motivated themselves to read books of their choosing, meaningfully.

Reading for meaning is the essence of reading. Without meaning, reading is an exercise in saying words without purpose. Purpose is an essential motivater in reading. When the reason for reading is clear and personally meaningful to students, they will naturally be engaged in the process.

Irene Gaskins (1999) describes a study conducted with 25 classes of first grade students. The study resulted in a compilation of the strategies used by several first grade teachers. The goal was to meet the needs of struggling

readers. What the teachers came to realize was that the strategies they discovered could be adapted to all grade levels. The teachers discovered the following;

- Purpose: Students will want to spend time actively engaged in meaningful literary activities.
- Guidance: Students are guided through a developmental progression of reading and writing at their own pace.
- Appropriateness: Students' needs guide instructional decisions, with pedagogical understanding being constantly updated and expanded.
- Success: Students' successes are not dependent upon a set of materials, or a single method, but a deep understanding of the many approaches used to teach students to read. These approaches are then diagnostically applied in order to find out what works for each student. Gaskins closes with a pointed statement, "materials don't teach, teachers do" (p. 164).

Teachers that are "tuned in" to students' needs and are willing to step out of the curriculum box and try a variety of approaches to reading will see students reap rewards for their efforts.

Janet Towell (2000) discusses how music can motivate elementary students to read. When the teachers in her study started playing classical pieces during daily DEAR time (Drop Everything And Read), they noticed that their

students' attitudes toward reading improved. Wigfield (1997) found "when students experience emotional responses while reading that are triggered by music they become engaged with text" (as cited in Towell, 2000. p. 284). Engagement produces motivated readers, and enhances the possibility of a lifelong reading habit.

Other activities mentioned by Towell (2000) to motivate students to read or to concentrate on their work are the following:

- "Choral reading of poetry
- Using rhythm instruments with raps
- Reading books written by well-known musicians
- Playing music to create certain moods
- Singing along with picture books made from songs" (p. 287).

Towell (2000) found that music and rhyme were great motivators for struggling readers and hard to reach children who have difficulty learning through traditional methods. Plato stated,

"Music is a more potent instrument than any other for education and children should be taught music before anything else" (as cited in Towell, 2000, p. 284).

Herbert (1999) describes other potent instruments and motivational techniques, that are essential when working

with struggling readers. Herbert states that proper pace, voice, eye contact, body language, and book choices can make the difference between motivation and boredom. The pace of a lesson helps students pay attention. "A teacher's voice and eye contact can command high expectations for students or invite a 'mental time out'" (p. 18). Body language can reinforce student independence and signal a time for support, while the absence of body language can send a "do nothing" signal to students and encourage them to fool around. Proper book choices both in reading levels and interests of students are essential in building self-esteem and confidence. When students are given book choices at their interest and readability levels, they will experience success and will want to read on their own.

Hunt (1997) found a direct correlation between students interest, motivation, and self-direction in reading to their assessed reading levels; independent, instructional, and frustrational. The reading levels refer to the number of miscues, mistakes, made on a selected text. When 95% of the words are read correctly, reading is at the independent level; 90%-94% accurate reading is the instructional level and below 90% correct reading is the frustrational level.

Hunt (1997) believes that although the reading levels concept has greatly increased the efforts of teachers to teach readers at their instructional levels, too much

emphasis has been concentrated on looking at the errors in reading. Focusing on errors is inherently negative, producing greater student frustration, decreased motivation, and a lowering of reading levels. Teachers can sometimes be preoccupied with the task of keeping track of different types of reading errors while missing the opportunities to support and reinforce meaningful reading. Meaning based reading with a high interest component produces motivated readers.

One interesting phenomenon that contradicts the validity of the reading levels theory, reported by Hunt, can be observed in most classrooms sometime during the school year. Students can be observed choosing books much too difficult according to their diagnosed reading levels, but of great interest to them. The highly motivated readers are engrossed in their books, working at getting meaning. Their interest and involvement are high so they persist in the pursuit of ideas and meaning. Their motivation transcends the frustrational level of the text.

A key question for teachers to consider then is how to encourage motivation that transcends the frustration of many struggling readers? Several strategies and techniques have already been addressed in light of current research. To conclude this section, the following list describes some additional ways to develop motivation through reading.

Although these strategies include some of those previously mentioned, this list is all inclusive of the many ways to encourage struggling readers to keep on reading (Vogt, 1999).

- Autonomy: Self-determination, the ability to handle freedom and opportunity.
- Choice: Choice of texts, topics, ways of responding.
- Modeling: Sell kids on reading, advertise.
- Immersion: Have books and magazines everywhere in the classroom, include variety of interests.
- Engagement: Sustained time on task.
- Collaboration and Interaction: Many opportunities to work with others.
- Intrinsic Rewards: Emotional involvement with books, showing laughter and tears, sharing the pure joy of reading.
- Extrinsic Rewards: A place to begin with some readers, use sparingly.
- Challenging Tasks: "Just because they can't read doesn't mean they can't think!" (Vogt, 1999, p. 38).
- High Expectations: Remind all students often that they are capable readers.
- Responsibility and Accountability: "Assess motivation: Employ accountability measures for all students (e.g. Reading Contracts, Self-Efficacy Assessments, Reading Logs and 'thermometers' of minutes read)" (p. 38).

Motivating students to engage in a sustained cognitive activity such as reading is a continuing challenge for teachers. When teachers believe in their students and foster the students' sense that they can read, the students will try harder. By building on the students' own interests and curiosity and giving numerous invitations to read in a variety of formats, students will respond positively. When teachers employ a variety of strategies to encourage student motivation, they give all students, including those struggling readers opportunities to succeed and to feel successful.

### Conclusion

The teaching of reading is a multifaceted challenge for teachers. The acquisition of reading can be a complex process for struggling readers. Reading is about making meaning from what is read and discussed, comprehending what is read. It is the goal of teachers to utilize the best methods in teaching comprehension to readers especially those who are struggling.

"For decades, many educators believed that teaching reading meant dealing with the visible or audible, rather than cognitive manifestations of reading" (Keene & Zimmermann, 1997, p. 16). This approach has not and is not working for struggling readers. Struggling readers can be taught to comprehend what they read while they are reading.

This is accomplished through metacognition, thinking about one's own thinking.

Comprehending can be taught through explicit instruction using seven strategy studies. Each strategy is introduced by teachers modeling their own thinking, think-alouds, as they work at using the strategy with text. The think-alouds serve as a model of the thinking process of a proficient reader. Daily repetition of the think-alouds in the course of strategy instruction with a variety of texts provides the model needed by struggling readers. The goal is for struggling readers to practice the same thinking and strategies that proficient readers use.

Along with teaching metacognitive thinking and the seven strategy studies, a key question for teachers is how to encourage and motivate struggling readers to want to try again after they have had numerous failures and lack of success. The answer lies in building on the students' own interests and curiosity as well as giving them choice of texts, topics, and ways of responding.

For students like my son Derek, who have often complained, "Mom, I just don't get it. I've read all these pages and I have no idea what is going on. Can you read it to me?", there are solutions to their comprehending struggles, there is hope for struggling readers.

APPENDIX A  
COMPREHENDING THROUGH METACOGNITION  
A TEACHER RESOURCE BOOK  
FOR GRADES FOUR THROUGH HIGH SCHOOL

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## HOW TO USE THIS BOOK

This Resource Book is designed for teachers who are looking for an exciting, successful way to learn and to teach comprehension. This book contains easy to follow lesson plans to assist you as you work with students who struggle with reading for meaning. Reading for meaning of expository and non-fiction text is a difficult transition for students in upper elementary grades through high school. These struggling readers are in need of strategy studies that teach the very art of how and what to think about while reading, as well as how to demonstrate comprehension of the material through activities.

Chapter one of this book provides lesson plans to accompany each comprehending strategy study. The lesson plans include an explanation of the strategy as well as a step by step process of how to teach the strategy, the projected time it takes, and extended activities and student charts. These lesson plans work best when used in conjunction with the text, Mosaic of Thought, by Keene & Zimmermann. This text contains all the strategy studies described in the Research section and the Resource Book of this Project. This text is an easy to read guide as Keene & Zimmermann search their own metacognition of reading. They take you on a journey of the mind as they work with the hardest to teach students and discover the strategies that

really work. This book has literally transformed my thinking about comprehension and has made me a much more effective teacher of children and adults.

The second chapter of this Resource Book contains lesson plans designed to show the product of comprehension. These plans work well when used after the strategy studies are completed and your students have practiced the metacognitive thinking processes. However, you may choose to use these activities in conjunction with the strategy studies to cover the comprehending process and the comprehension product at the same time. These activities in this second chapter are adapted from the text, Creating Classrooms for Authors and Inquirers, by Short, Harste, & Burke. These activities are referred to as curricular engagements. They are exciting and fun to teach and are authentic methods of measuring comprehension.

It is my desire that this Resource Book will be a guide, a help, a tool, a plan, and a challenge. A challenge to keep looking for the best ways to teach students who struggle. As teachers and learners, we are always searching for new ideas and strategies. It is my hope that this Resource Book not only provides you with answers to comprehension problems, but also challenges you to keep searching for answers.

## CHAPTER ONE: INTRODUCTION

The following activities are designed for teachers to use in conjunction with the teaching of the eight strategy studies described in the body of research. For ease of teaching, each activity is divided into the following sections:

- A brief description
- Grade levels
- Projected time
- Suggested students
- Materials
- Preteaching (if needed)
- Procedures
- Extended activities
- Projected results
- Conclusion

The metacognition activity is placed at the beginning of this section to allow your students the opportunity to practice the think-alouds before beginning the strategy studies. The teaching of these eight strategy studies will require an investment of your time as you deal with an already crowded schedule, but will reap great rewards for your students, especially those having difficulty with comprehension.

**Activity:** Metacognition

**What is it?** The act of thinking about what is being read while reading and simultaneously using comprehending strategies that enables the reader to actively engage with the text. This metacognitive engagement is directly linked to reading for meaning.

**Projected Time:** A 1-2 week study of 2-3 minutes at a time of thinking modeled out loud by teachers throughout the school day across many different subject areas. Initial teacher modeling of about one week slowly giving more responsibility to students to model throughout the second week.

**Grade Levels:** Appropriate for any grade level, most essential for upper elementary through high school.

**Suggested Students:** Students who have difficulty discussing and retelling information contained in a text.

**Materials:** For initial modeling, the text should be one that lends itself easily to discussion and provides the teachers with ample opportunities to model their own thinking out loud.

**Procedures:**

1. Begin by explaining what metacognition is. Then give a brief example of your own thinking with a challenging text you enjoy reading.
2. Next select a story your students particularly enjoy, possibly a chapter book that you may already be reading daily.
3. Create an atmosphere for reading enjoyment with a comfortable setting that might include a rocking chair or director's chair, pillows, or easy chairs.
4. Read a short passage, stop and model out loud what you think about as you read and that helps you achieve a deep meaning of the text. Do this over a 20-30 minute period or as long as you can keep your students interested.
5. Repeat step four for 2-3 days slowly giving students opportunities to model their own thinking. Remind students

that their thinking may be different than your thinking or different than what another student may think. Depending upon background knowledge and connections made to the text, students may differ in their individual think-alouds. The idea is to get students in the habit of thinking while they are reading.

6. Next have your students select a couple of books from among those you have chosen that fall within the readability levels of most of your students, if possible.

- a. Begin by reading a short passage and modeling your own thinking.
- b. Select 2-3 students to read a passage out loud (pairing readers not able to read the book with proficient readers) and model their own thinking out loud.
- c. Pair students with a student selected text at their independent reading level (95% of the words read correctly). Have students take turns reading out loud and modeling their own thinking. Be sure to walk around the room listening to paired groups to get an understanding of their competency.
- d. Next have students practice independently in quiet voices, listening to selected students. Step 6 may take between 3-5 days.

7. For the next couple of days, you should model your own thinking as you read throughout the day in a variety of genres encouraging students to do the same. At this point, the thinking becomes automatic and internalized for most students.

8. The think-alouds need to be modeled often throughout the year, and are a vital part of the study of comprehending. You are now ready to begin the strategy studies.

**Activity:** Activating Prior Knowledge

**What is it?** A comprehending strategy that encourages students to make personal connections to a text, to think about what they already know about the text, and to activate their own schema as they relate to a text.

**Projected Time:** 4-8 weeks of 15-30 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty making connections from what they read to their own personal experiences.

**Materials:** Chart paper and markers. Several read aloud books, stories that contain rich language. Stories with which students can activate their own schema for text content, author, and text format. Stories that consider the interests and needs of students. Stories that include identifiable concepts and themes and that lend themselves to modeling think-alouds.

**Preteaching:** 1-2 weeks of time to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining the strategy study, what it means to activate prior knowledge and why it is important. Give examples of how practicing and learning this strategy will help your students in school and in real life situations.
2. You choose a book on your own and identify concepts and themes. Decide how your own experiences relate to this text and where you might pause to think aloud about the connections.
3. You read, pause, and share your thoughts about what you read activating your own schema.
  - a. For short selections, teachers may read the entire text before stopping.
  - b. Then reread a short passage, stop, and think aloud about what experiences you have in common with the passage read.

4. During the think-alouds, you explain through examples in the text what kind of connection can be made.

a. Text-to-self connections are made when the text reminds readers of something they already know about, something in their own life.

b. Text-to-text connections are made when the text reminds readers of other books they have read.

c. Text-to-world connections are made when readers' world knowledge contributes to the understanding of the text.

d. Each connection is modeled individually using think alouds. Several books are read over several days stressing only one connection at a time.

e. A chart can be made with each connection written in a column form at the top. As connections are made in each category, the names of the books are written under each column heading.

Example:

Making Schema Connections		
Text-to-Self	Text-to-Text	Text-to-World
_____	_____	_____
_____	_____	_____
_____	_____	_____

f. Gradually, the shift is made from teachers modeling their own connections in the three different categories to students assuming responsibility for practicing the strategies themselves.

### **Activating Prior Knowledge Extended Activities**

1. Using think-alouds, teachers can show how developing schema for an author, their own knowledge about the author enhances a reader's understanding of other books by that same author.

2. Predictions or expectations about the book are then made based on the students' schema for the author.

3. Those predictions are listed under a new column heading, Schema for Authors.

4. Using the information known about the author, students predict what the book is likely to be about. The information is listed under the author's name.

5. Teachers can then confirm the predictions based upon examples from the author's book.

6. Students then discuss different authors' styles and list those authors' names and predictions under the column heading "Schema for Authors."

7. Additional columns can then be added to further extend students schematic connections. Those columns are text format and creating new schema.

a. Text format or structure refers to how traditional text are laid out and how some texts are laid out differently creating possible challenges with comprehending those texts.

b. Teachers can model their thinking process as they look at books with a variety of different formats. Those formats may include the difference between fiction and nonfiction structure, bold print, drawings, dialogue, and headings.

c. Creating new schema refers to building a bridge of knowledge students lack to make connection to a given text.

d. Teachers build this knowledge by activating any schema the students have around the key concepts of the book.

e. Teachers read and reread parts of the book thinking aloud about each of the key concepts and how to connect their existing schema to the new schema of the book.

8. A gradual shift is then made from teacher modeling of their own schematic connections in the three different category, to students practicing the strategies themselves.

**Projected Results:** The goal is for students to integrate all the components of the strategy when reading independently. After a few demonstrations of the study, students are invited to share their experiences and knowledge as they stop to think aloud while reading. The components of the study include using prior knowledge to make text-to-self, text-to-text, and text-to-world connections. The extended activities include making schematic connections to the author, to the format or structure of the text, and building schema in order to make connections to the schema of the book.

The following are components that can be used in a chart form for the strategy study, Activating Prior Knowledge:

- Text-to-Self
- Text-to-Text
- Text-to-World
- Authors
- Format

Note: Book titles are listed under each column representing the connection made in that particular category. Student or adult names or initials can be written next to the book title indicating who described the schema connection.

**Conclusion:** Activating prior knowledge is a powerful strategy that can be used by students and adults of all ages. It is a first step toward deepening students comprehension of a text through activating their prior knowledge. Students will be actively engaged with a text as they make connections from what they know to the oral or written information.

**Activity:** Attending To What Is Important

**What is it?** A comprehending strategy that helps students decide what is important and what to pay attention to in a text. This strategy helps students focus on certain parts of the text that are most important to understanding the whole piece.

**Projected Time:** 4-8 weeks of 15-30 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty deciding what to pay attention to as they read. Students that cannot decide what information is most important.

**Materials:** Chart paper and markers. Several books, fiction or non-fiction that are predictable and reader friendly. Fiction texts are often a more appropriate choice to begin the strategy study because of the rise and fall of action and the predictable resolution.

**Preteaching:** 1-2 weeks of time to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining the strategy study of attending to what is important, what it means and why it is important. Give examples of how practicing and learning the strategy will help your students in school and in real life situations.
2. Select a story that you enjoy and start by reading a short selection. Model out loud what you think is important and why. Allow for student discussion. Repeat exercise for 2-3 days of 15-20 minute sessions.
3. Explain what really great readers do when they read.
  - a. They listen to that mental voice that tells them what is important about the word, sentence, and paragraph levels and what ideas are most important.
4. Divide students into small groups of about 5-6 students per group. This strategy study may be used as a center so

that students can rotate through for a mini-session study with you as the facilitator.

5. Each group should choose one book for the study. Explain to students by thinking aloud what information is important to you at the word and sentence level.

6. Then progress to identifying what is important in longer passages and ultimately what concepts are important in chapters and whole text.

7. As students go through each level of attending to what is important; word, sentence, paragraph, whole text and concepts, you need to begin to ask your students how and why they arrived at these conclusions. If your students are having difficulty, model the think-aloud process explaining the how and why of your own thinking. Encourage your students to always think about their answers and be ready to explain how and why they think something is important at the word, sentence, passage, or whole text level. Numbers 5-7 will take about 3-4 weeks.

8. One activity that can be accomplished at the mini group session is to have all students read their selected text. Assign a number of pages per day. After each reading, each student decides what they think is important and writes the choice on a file card. On the back of the card, each student states how they made the selection and why. They then must state their reasons to the other members of the group. This activity is intended to get your students thinking, not to give them right and wrong answers. This strategy may take 1-2 weeks.

9. Revisit the strategy study throughout the year as needed, always modeling your thinking as your students work at deciding what information is important as they read.

**Activity:** Delving Deeper With Questions

**What is it?** A comprehending strategy that assists students as they construct meaning for themselves by interacting with the text through questions that help them clarify meaning.

**Projected Time:** 4-8 weeks of 15-30 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who tend not to ask questions at any time while reading, either before, during, or after. Students who passively read words with no hint of connection with a text.

**Materials:** Chart paper and markers. Several picture books, simple poems, and short pieces of work chosen by your students.

**Preteaching:** 1-2 weeks of time to practice the think-aloud, metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining the questioning strategy, what it means, and why it is important. Give examples of how practicing and learning this strategy will help your students in school and most importantly in real life situations.
2. Choose a book of interest to you and your students, one that you both enjoy reading. Start by reading the entire selection without interruption. Your students may have questions, but resist the temptation to answer them now.
3. On a large chart paper, begin writing your own questions about the selection. These questions should be real questions coming from your own experience and curiosity.
4. Reread passages you are uncertain about and ask questions about information or ideas you may wonder about. At this time, you are thinking out loud and providing a model of your personal thought process. You can chart some or all of your questions.
5. By this time, if your students don't have hands raised, you can invite them to volunteer their questions.

6. Each question from the students should be recorded exactly as stated. Some students may answer a question stated by another student. That is what you are looking for, engagement with the story through questioning.

7. You may want to have a whole group discussion at this point that may lead to answers to the listed questions. You could also leave the chart on the wall and invite students to reread the story and record their answers below any of the questions.

8. Numbers 2-7 can be repeated with other stories until you feel your students are comfortable with asking questions.

9. Next discuss with your students the kinds of questions asked and when they are asked. The following prompts will be helpful:

- a. What questions do you have before you read the story?
- b. What questions do you think about while you are reading?
- c. What questions do you have when the story is complete?

10. When you feel your students are ready to choose their own book and begin reading, you may want to discuss the following questions. These are questions that could be asked before reading, during reading, and after reading any text. Question that:

- have answers in the text.
- have answers found by thinking about the book and my own experience.
- have no certain answers.
- clarify meaning.
- that ask what's coming next in the book.
- about the author's intent.
- about the author's format.

These questions can be made into a chart format and used to record student responses. This chart and the

information listed were taken from Mosaic of Thought, by Ellen Oliver Keene and Susan Zimmermann.

11. Each student can record the questions they had before, during, and after reading in each category.

12. A most helpful strategy for students is to listen to continued modeling of questions in a variety of text over a long period of time.

13. As the students become more proficient at asking themselves questions, they can use small self-adhesive notes, write a question mark on them, and place them in books wherever words or an illustration caused them to ask a mental question.

**Activity:** Creating Mental Images

**What is it?** A comprehending strategy that encourages the reader to create vivid images or pictures in their mind while reading or listening to text.

**Projected Time:** 4-8 weeks of 15-20 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty creating images of what they read and deciding which images are most important to the overall meaning of the text.

**Materials:** Chart paper and markers. Several read aloud books and stories that contain rich language. Choose topics of interest to your students, where they have prior knowledge. Books at their readability level.

**Preteaching:** 1-2 weeks of time to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining the strategy of creating mental images while reading. Explain by example why this strategy is important for comprehension and how practicing this strategy can benefit them in school and in real life situations.
2. Select a book that lends itself through it's rich language to this activity.
3. Read the entire book without interruption. Then reread a few pages before looking up and beginning to think out loud about the images the words create in your mind. Be as detached as possible in your think-aloud and try and include sensory images from the hearing, tasting, and touching realms as well as the visual.
4. Next, invite your students to describe the images that came to their minds. Reread some passages and challenge your students to hear, touch, taste, and smell, and to pay attention to the emotional content of the images.
  - a. Your students should be aware of their own images, be able to elaborate upon them, and develop a

sense that reflecting on these images enhances comprehension.

5. Repeat #2-4 over several days as needed.
6. Students can now practice in small groups with their book of choice, preferably non-fiction.
7. As they read, encourage students to mark the text with self-adhesive notes when they become aware of an image, and marking again when that image changes as they read further.
8. End the strategy study with a large group sharing time. Discuss how being aware of images deepens comprehension and engagement with the text.

**Activity:** Creating Personal Meaning

**What is it?** A comprehending strategy that invites students to create personal meaning through making inferences. This meaning is not always explicitly stated in the text, but is a combining of prior knowledge and the readers unique interpretation of the text.

**Projected Time:** 4-8 weeks of 15-30 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty looking beyond the literal meaning of the text. They do not use the inferring strategy and often miss out on experiencing and participating in reading discussions.

**Materials:** A book you are currently reading for your enjoyment, several fiction selections of interest to your students, multiple copies of student selected books for mini-sessions.

**Preteaching:** 1-2 weeks of time to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining what it means to create personal meaning, what an inference is, and how participating in this strategy will benefit your students in school and in real life situations.
2. On your own, choose a book you enjoy and read. Stop when you are aware you are inferring and analyze the process. Consider the different types of inferences you are making. Read several other selections until you are comfortable with your own mental processing as you make inferences. Be sure and remind yourself of the effect inferences have on your ability to recall content.
3. Select a small group of 5-6 students to begin the strategy study. All students will have the same text at their independent reading level (95% and above on a running record). Read and model your own thinking with think-alouds and discuss how you made the inference.

4. The goal for this study is to create an atmosphere in your classroom that encourages students to discuss, ponder, argue, restate, reflect, persuade, relate, write about, or interact with the information that leads to deep comprehension.

5. Repeat numbers 3-4 with each group until you are comfortable with your students' competency. Not all students may be ready to understand the concept, use your judgment when to begin.

6. Inferring will allow your students to remember and reapply what they have read, create new background knowledge for themselves, and discriminate and critically analyze text and authors.

**Activity:** Cognitively Synthesizing Information

**What is it?** A comprehending strategy where students actively use their prior knowledge and decide what to pay attention to as they read. Students create, ask questions, create visual images, draw conclusions, and make judgments. In a way, synthesizing is an amalgam of all comprehension strategies used by proficient readers.

**Projected Time:** 4-8 weeks of 15-20 minute sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty attending to the evolving meaning as they read. Students that cannot create new ways to think about and share the information with others.

**Materials:** Chart paper and markers. A variety of read to fiction books of interest to you and your students.

**Preteaching:** 1-2 weeks of time to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Begin by explaining briefly what synthesizing is and why it is essential to comprehension. Don't spend too much time explaining this concept, the ideas are better understood in the context of the study.
2. Select a book of interest to you and the class and read it aloud several times over several days.
3. After finishing the book each time, synthesize what you believe to be the key themes in the book. Show how your synthesis is slightly different after each reading.
4. After each rereading, invite your students to share their information. Make sure and carefully relate what they share (if you can) to the story you just read.
5. As this study progresses, model your thinking everyday, increasing the sophistication of your synthesis in a wide variety of text. Some suggested materials are newspaper articles and non-fiction articles from magazines and picture books.

6. You may choose to chart student responses after you discuss with your class what to include and what to leave out.

- a. Remember; the central elements found in fiction are character, setting, conflict, sequence of events, and resolution. These elements are usually included in a fiction synthesis.

7. Teaching synthesis may require more think-aloud modeling on your part. It is a challenging strategy that needs to be revisited often throughout the year.

8. A good way to handle the challenge is to hold individual student conferences focusing on helping your students think aloud. As your students pay attention to the evolving meaning as they read, they create new ways to think about and share the information later. This will significantly improve your students ability to remember books and to transfer the information they've synthesized to new learning situations.

Note: The process of synthesis occurs after reading. Proficient readers can:

- a. Express through a variety means a synthesis of what they have read.
- b. Use synthesis to share, recommend, and critically review books they have read.
- c. Purposefully use synthesis to better understand what they have read and to monitor overall meaning.

**Activity:** Solving Word and Comprehension Problems

**What is it?** A comprehending strategy that teaches students to be aware of the arsenal of tools they can use to solve word identification and comprehension problems.

**Projected Time:** 4-8 weeks of 15-30 minutes sessions.

**Grade Levels:** Fourth grade through high school.

**Suggested Students:** Students who have difficulty appropriating strategies when they read, whether they are comprehending strategies or fix-up strategies for decoding text.

**Materials:** Chart paper and markers. A collection of books, fiction, non-fiction, expository in a variety of genre. Some of the books or stories need to be at the instructional level of students (between 90-94% of words read correctly on a running record) for the mini-sessions.

**Preteaching:** 1-2 weeks to practice the think-aloud metacognitive thinking strategy.

**Procedures:**

1. Explain the strategy in general, and tell your students a more thorough definition will be given later in the study.
2. First talk about what you do when you get stuck on something you don't know or don't understand. Read a challenging manual or text and model as many of the strategies as you can.
3. Repeat over several days with several books. Be sure to include at least one example each time from each of the following strategies:
  - a. Think about what makes sense.
  - b. Try to sound out the word.
  - c. Look for meaningful word parts.
  - d. Continue to read, then go back and read again.
  - e. Ask someone for help.
  - f. Look the word up in the dictionary.

4. You may want to ask yourself and your students the following three questions from the three main cueing systems:

- a. Semantic: Does this make sense?
- b. Syntactic: Does this sound right?
- c. Graphophonic: Does this look right?

5. You should be modeling your own problem solving strategies on an ongoing basis. As your students practice using these cueing systems, gradually transfer the responsibility of thinking aloud to them. You want them to be able to identify what problem needs fixing up and how to fix it. The more the fix-up strategy is identified and used, the greater chance that strategy use will be an automatic process.

6. One exercise to reinforce the use of strategies is to list possible reading problems and possible solutions. Then during the course of any reading activity, when a reading challenge arises, possible solutions could be discussed and listed.

7. Another way of reinforcing fix-up strategies is to catch students in the act of using them. A discussion could then follow about what strategies were used and why they were used. In the context of discussing all strategies that help readers with words and comprehension problems, it is important to include all the tools that students use.

- a. Tools to solve problems that deal with meanings of words, passages, and whole text such as questioning, inferring, synthesizing, determining importance, and activating background knowledge.
- b. Tools to solve recognition, pronunciation, and word definition problems such as decoding, word analysis, and using from the context.

Note: By listening carefully to students as they describe their reading challenges, teachers could respond by modeling a variety of techniques to address these problems.

## CHAPTER TWO: INTRODUCTION

The following activities are designed for you to use with your students in response to literature and as a reflection of comprehension. To prepare, you will need to be familiar with the concept of each activity. The following activities are taken from Creating Classrooms for Authors and Inquirers, by K. Short, J. Harste, and C. Burke. This is an excellent resource and will provide you with a basic foundation of several comprehension activities. Also, it would be beneficial if students had some familiarity and practice time with the metacognitive thinking process. This can be accomplished through strategy study activities. Allowing students to practice their own thinking out loud in think alouds is a valuable experience and one that will assist them in connecting to the text.

For ease of teaching, each activity is divided into the following sections:

- A brief description
- Projected time
- Suggested students
- Materials
- Procedures
- Projected results
- Extended activities

Teachers can adapt and extend the activities for a small group or whole class. These interactive activities will enhance motivation and create a climate of positive learning as students are given invitations to succeed.

**Activity:** Anomalies

**What is it?** A comprehension strategy that promotes openness to each student's life experiences while connecting to their own past events, prior knowledge, and feeling.

**Projected Time:** 3-4 days of 45-50 minute sessions.

**Grade Levels:** Third grade and up.

**Suggested Students:** Students who resist sharing and who have difficulty relating to text.

**Materials:** Multiple copies of text, 4 3x5 index cards or slips of paper, pencils, and construction paper.

**Procedures:**

1. Each student reads text individually.
2. Students in groups of 4 or 5 read the same selection. They write one quotation per card either during or after reading. Students are to focus on contradiction, what is new or exciting, catches their attention, or caused problems. They can also be things that made them reread or rethink.
3. After writing their quotations on the four cards, they rank them from most anomalous to least anomalous.
4. When the group comes back together, each student reads their ranked anomalies and shares why that quotation was surprising to him/her. All sharings are respected.
5. Each group then works cooperatively to choose the four most anomalous quotations. One student is chosen from the group to share them with the class, mounting the ranked cards on construction paper.

**Projected Results:** To teach students to explore "what's on their minds", to honor and learn from others' sharings, to generate an excitement for learning and to value their own opinions.

**Activity:** Graffiti Boards

**What is it?** A comprehension strategy that elicits a graphic response to a shared reading experience.

**Projected Time:** 3-5 days of 45-50 minute sessions.

**Grade Levels:** Kindergarten and up.

**Suggested Students:** Students who can express themselves using artistic connections.

**Materials:** Large sheet of brainstorming chart paper, markers, or pencils, multiple copies of a text that generates high student interest.

**Procedures:**

1. Students engage in some type of shared reading experience.
2. During the shared experience, students sit in small groups with a large piece of brainstorming paper in the middle of the table. When the reading stops, students, working alone, are invited to sketch, write images, words, and phrases that have come to mind.
3. Students then share their graffiti entries and use them to generate a dialogue, leading to the creation of webs, charts, or diagrams.

**Projected Results:** To teach students to listen, identify, and express their interpretation of the text with images, which can then be extended into activities using graphic organizers.

**Activity:** Webbing and Graphic Organizers

**What is it?** Graffiti Boards Extended Activities

**Projected Time:** Three days

**Materials:** Graphic Organizer (1 for each student), 1 large poster board per group, pencils, rulers, and markers.

**Procedures:**

1. Each group creates a web of major points taken from graffiti board.
2. Each student chooses 4 major points to be illustrated in the four corners of his/her graphic organizer. These 4 points can be expressed as doodles, pictures, or a few words.
3. On the same graphic organizer, each student writes about what each illustration is in the area provided in the center of the page. This description can also be the major points of a book or just a description of the 4 points.
4. Students share their completed graphic organizer with the class.

**Activity:** Literature Circles

**What is it?** A group of readers who have chosen the same book to read and study. Literature Circles support readers in thinking critically about books. The readers actively construct meaning from text by bringing meaning to, as well as taking meaning from a text.

**Projected Time:** Two to four weeks of 60 minute sessions.

**Grade Levels:** Kindergarten through adults.

**Suggested Students:** Students who have difficulty understanding literature and how it relates to their life.

**Materials:** Multiple copies of a piece of literature, literature logs, chart paper, and other materials for responding to literature.

**Procedures:**

1. Teacher selects quality literature: shared book sets based on classroom themes, high interest books for middle grades, predictable books for younger readers. Literature can include picture books, novels, short stories, poetry, informational texts, and student authored books.
2. Introduce books to the class through a short book talk\*. Allow students to browse through the books for a day or two. The teacher may need to read each choice aloud to younger children.
3. Students decide which Literature Circle they want to join. This can be done by having the students sign up on a "first come, first served" basis, or by secret ballot where students mark their first or second choices. Note: The teacher may want to direct struggling readers to less challenging leveled books and/or make sure each group includes students of different reading proficiencies.
4. Reading the text: There are various ways to read the literature. The teacher can select which is best, depending on the student's reading proficiencies and the length and difficulty of the book.

a. For longer chapter books, students meet to determine how many pages they need to read in a day in order to finish the book by the designated time.

b. As students read, they are encouraged to write or sketch their connections, question, and responses so they will be ready to share with their group members. These responses can be in a Literature Log, Sketch Journal, or on Post-it notes placed in the book. Possible journal prompts can include the following:

What did you think about as you read the story?

Do you think this story could really happen?

Why do you think a character did.....?

What would you have done?

c. The students then share their initial responses discussing their favorite parts, sections that confused them or retelling parts they enjoyed. The sharing can last 15 minutes or longer.

d. Students meet on a daily basis for discussions. They then discuss ways to share the book with the class. The presentation can be informal or formal and should answer the following question: "What do you want others to understand about your book?" Presentations might include the following: murals, dioramas, mobiles, Reader's Theater, dramatizations, puppet shows, newspaper based on time and events in book, or creating a new ending, etc.

**Projected Results:** Literature Circles support readers by:

1. Promoting a love for literature and positive attitudes toward reading.
2. Upholding diverse responses to text.
3. Fostering interaction and collaboration.
4. Providing choice and encouraging responsibility.
5. Exposing students to literature from multiple perspectives.

6. Nurturing reflection and self-evaluation.

\*Book Talk: An interactive book introduction that helps students connect to what will be read:

1. Discuss author/illustrator.
2. Predict from illustrations.
3. Elicit prior knowledge responses from illustrations.
4. Discuss unfamiliar words.
5. Discuss/review punctuation.

**Activity:** Reader's Theatre

**What is it?** A shared reading experience by two or more readers of a poem, story, lyrics, or favorite song. The focus is on meaning and interpretation.

**Projected Time:** Two to seven days of 45 minute sessions.

**Suggested Students:** Readers at all ability levels.

**Materials:** Student written scripts, adapted literary selections, prepared scripts, staging aids.

**Procedures:**

1. Select literature containing interesting characters, a large amount of dialogue, rich and rhythmic language and a storyline with conflict or suspense and humor. Or choose to write a script using themes, holidays, or events for ideas.
2. Adapt the literature selection by omitting extraneous parts, shortening long speeches or descriptive sections. Select characters and a narrator to make connections between scenes.
3. Begin writing a script by brainstorming or webbing a list of everything about the topic. Then categorize the ideas into major groups and divide into parts for readers and narrator.
4. Draft and revise the script, give a copy to each reader highlighting his/her part.
5. Consider aids (costumes, music, lighting, props) that could improve the script.
6. Think about staging possibilities, how to stand or sit in relation to one another. PRACTICE, PRACTICE, PRACTICE.
7. Present the Reader's Theatre, either formally or informally. A class discussion can then be held about the success of the program. The readers can decide how they made interpretations and staging decisions. The audience can respond to what was and was not effective, and a revised performance can then be held.

**Projected Results:** Reader's Theatre teaches students to enjoy, express, and interpret what they read through vocal and physical performance. Reader's Theater requires the interaction and cooperation of students necessary to bring a story to life, resulting in active, not passive learning.

**Activity:** Reciprocal Teaching

**What is it?** Reading and comprehension strategies designed to actively bring meaning to the written word and provide opportunities for students to monitor their own learning.

**Projected Time:** Between 20-30 days of 20-45 minute sessions, depending on grade level and attention span of students.

**Grade Levels:** First grade and up. A very effective strategy for middle school and high school with content curriculum.

**Suggested Students:** Students who need to practice strategies for oral and written comprehension. Modifications can be made for students who lack decoding skills, second language learners, or non-readers. Students with poor decoding skills can use this tool as a read-along activity, while second language learners may use it to practice developing skills. Reciprocal Teaching can challenge non-readers to improve their listening comprehension skills.

**Materials:** Multiple copies of appropriate, high interest text at instructional level. Highlighters, Post-Its, Journals, Strategy Cards, Strategy Poster.

**Procedures:**

1. Students are divided into heterogeneous groups of four to six. The first five days are devoted to introducing Reciprocal Teaching, discussing and modeling reading and comprehension strategies. Begin by explaining the reasons for using Reciprocal Teaching. Practice a routine of turn-taking with input from every member of the group. Discuss strategies that can be used to help students read (or listen) and understand, whether or not there is a teacher nearby to help them.
2. During strategy instruction days, encourage student responses and discussions. When posing a question, ask each group member to respond. If students have questions for each other, remind them to direct their questions to the appropriate student, rather than the teacher. This turn-taking will allow the teacher to eventually back out of

the groups as the students become more comfortable with the process.

3. On the remaining strategy instruction days, strategies should be introduced one at a time, while continuously reviewing strategies that have come before. A list of strategies should be posted for reference. Practice with only one or two paragraphs at first so students can become familiar with what is meant to happen during Reciprocal Teaching dialogues.

4. During the first few days of instruction, each of the four strategies should be reviewed along with the reason for using them and Reciprocal Teaching procedures. In the beginning, the teacher can take on the role of the discussion leader in order to model desired behavior. The teacher might use the "think aloud" strategy\* to help students see and hear the way skillful readers think while reading.

\* See Modeling Guide Example

5. Over time, the teacher decreases her role as the expert and encourages students to remind each other to implement strategies and to ask for full participation from every group member.

6. In the beginning stages of Reciprocal Teaching, use all four strategies for each section of text. As the students become comfortable with the process, let student's needs be the ultimate guide in choosing the order of strategies used.

7. Begin by focusing on one paragraph at a time. This will ensure that each group member will have a turn as a discussion leader. Longer passages can be used as students become more proficient.

### Sample Reciprocal Teaching Lesson

**Predicting:**

Begin new passage by making predictions based on title and pictures. Students think about what they might learn from text. Select a discussion leader and read selected paragraph. Teacher or willing students may read aloud, or silent reading may be used.

**Clarifying:** The discussion leader then asks group for words or phrases that need to be clarified.

**Questioning:** Discussion leader asks group members what is the most important information read, calls on members in group to answer question, and to suggest additional questions for group to answer. If group is having trouble formulating question, let them summarize the passage read before forming question. Clarifying may also be needed here again.

**Summarizing:** Discussion leader summarizes text in his or her own words, asking for suggestions about how summary might be improved. Clarifying may also be needed here again.

These strategies can be interchanged according to ability level and experience of group. Use all four strategies when introducing Reciprocal Teaching, but Questioning and Summarizing should always be used.

### "Think Aloud" Modeling Guide

- \* "I think an interesting question about this part of the passage is....." Elicit responses to this question from the students. Allow students to refer to the text to find the answer. Invite the students to add their questions.
- \* "By thinking about the topic and what the author has told me about this topic, my summary of the most important information in this paragraph is.....". Invite the students to add on to your summary.
- \* "Based on the title of the story and what we have read so far, I would predict that the author will discuss....."
- \* "When I read this part, I got confused. I think the following ideas (or words) need to be clarified....." Ask the students if they have suggestions on how you might clarify the ideas or words. The describe the kinds of fix-up strategies you used to make sense of the portion of the text if, in fact, you were able to clarify (e.g., I reread, I figured out that "it" must refer to \_\_\_\_\_.). If you were unable to make sense out of the text, explain to the student how you intend to make sense of it (e.g., I may figure out the meaning when I read ahead, I may need to look up the word in a dictionary, or maybe the author made a mistake).

\* Taken from Using Reciprocal Teaching in the Classroom: A Guide for Teachers by Annemarie Palinscar, Yvonne David, and Ann Brown, 1989.

**Activity:** Save the Last Word for Me

**What is it?** A comprehension strategy that engages a group of students to interact with each other and respond to text in oral and written form.

**Projected Time:** Two to three days of 45-50 minute sessions.

**Grade Levels:** Third Grade and up.

**Suggested Students:** Students who have difficulty making connections and reacting to text.

**Materials:** 3x5 cards or a folded sheet of paper; markers, pencils.

**Procedures:**

1. Each student individually reads the text.
2. As the students read, they write on the first side of the card or paper any part of the text, phrase, or sentence that caught their attention. These items can be what they find interesting and what they want to discuss later. They can also be things they agree or disagree with. Students should record the page number.
3. On the other side of the card or paper, students write out what they want to say about each part they have selected. These can include questions and points of agreement or disagreement.
4. After students complete reading and writing the cards, they gather in small groups to share their cards.
5. Before group discussion, students go through their cards and put them in order from most important to least important.
6. One student reads their part and the other members of the group react to what was read. That student then has the last word about why he chose that part, using his remarks from the back of the card and from the group members' reactions.

Projected Results: To teach students to identify, think about, interpret, react, and rephrase significant parts of text.

**Activity:** Say Something

**What is it?** A reading and comprehension strategy that highlights the social nature of language and demonstrates that understanding develops and evolves from interaction with others.

**Projected Time:** Three to eight days of 45-50 minute sessions.

**Grade Levels:** First grade and up.

**Suggested Students:** Students who need to develop a more functional view of reading and who need to be aware of and use alternate reading strategies.

**Materials:** Multiple copies of reading selection.

**Procedures:**

1. Students choose a partner, each is given their own copy of reading selection. Each pair decides if they will read the section aloud or silently. If reading orally, one student reads, the other listens. When reader is done, listener will "say something". Then reader will "say something". If reading silently, both read same section, stop at same place, taking turns to "say something".
2. Student comments can include: predictions, general comments and connections, related experiences connected to what was read, or they may ask questions concerning text.
3. Continue with this format for the remainder of the text.
4. At the end of the first "Say Something" strategy lesson, the teacher can engage in a group discussion aimed at helping the students become aware of how they can use this strategy, "Say Something", in future reading lessons.

This lesson works better when used first with a big book, response starters listed on chart paper and teacher reads 2 or 3 pages at a time, then asking for charted responses. Projected Results: "Say Something" involves students in interactive communication, responding to how the selection relates to their own experience, bringing the text to life in a shared environment.

**Extended Activities:** Say Something - Reading in-the-Round

**Materials:** 1 sheet of writing paper, pencils, 1 copy of selected text for each student.

**Procedures:**

1. As students are seated around a table, each takes a turn responding to the reading selection on the writing paper.
2. Comments can be reactions to what they have read or they may comment on another student's written response.
3. Students are instructed not to be concerned with spelling, not to make negative remarks or criticisms of others' comments, and they must put their name by their comment. Everyone's views are to be respected.

**Activity:** Song Maps

**What is it?** An artistic and mathematical representation that uses lines and patterns to show the deep structure or musical meaning of a song.

**Projected Time:** One 20-30 minute lesson.

**Grade Levels:** Third grade and up.

**Suggested Students:** Students who are reluctant to take risks or who have flawed ideas of language.

**Materials:** Several pieces of classical music, such as Beethoven's Fifth Symphony and a Bach Concerto. Overhead transparencies.

**Procedures:**

1. Play a piece of music inviting students to listen for recurring patterns in the music.
2. Share a song map for the piece of music. A song map is a visual interpretation of the music written with lines or drawings.
3. Invite the students to follow along on the song map as they relisten to the musical selection. Discuss the difference between capturing the surface structure of the musical notes and the deep structure of "musical waves" in the song.
4. Play and replay another musical selection asking students to create song maps for that selection. They can work alone or in groups.
5. Students can share their song maps on poster board or on an overhead while relistening to the music.

**Projected Results:** To allow students to experience language in musical expression, creating newly generated knowledge of their world. It also encourages students to think creatively, beyond their current understanding of an experience.

**Extended Activities:** Allows students to share feelings generated by creation of Song Map.

**Materials:**

Charted response starters:

1. How did you feel after making your Song Map? (happy, sad, lazy, etc.)
2. What did it make you think about?
3. Who or what did it remind you of?
4. What did it make you want to do? (run, jump, sleep, shout, sing, etc.)

**Procedures:** Students list responses in complete sentences, either under Song Map or on a separate piece of paper. This could also be enhanced by an illustration.

APPENDIX B

PROJECT EVALUATION FORM

**Project Evaluation Form**

Teacher's name: (optional) \_\_\_\_\_

School: \_\_\_\_\_

Grade Level: \_\_\_\_\_

Years teaching: \_\_\_\_\_

**After reading the project, please comment on the following areas:**

1. Simplicity of the project: \_\_\_\_\_

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2. Usefulness of the project in your Reading program:

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3. Has this project changed the methods you use to address comprehension problems with struggling readers?

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4. Do you have any questions concerning the concept and implementation of comprehending and comprehension strategies?

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5. Do you see yourself including the strategy studies as a part of your reading curriculum?

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6. Has this project challenged you to think about any of the issues discussed in the research section of this project?

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7. Do you have any suggestions or comments for improving the project?

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### A Final Word

I want to end this project with an insightful quote from Keene and Zimmermann (1997). The ideas expressed in their book, Mosaic of Thought, have sent me on a journey of my own. I realized a path that lead me to the discovery of innumerable treasures of knowledge. I am richer for having taken the journey.

If reading is about mind journeys, teaching reading is about outfitting the travelers, modeling how to use the map, demonstrating the key and the legend, supporting the travelers as they lose their way and take circuitous routes, until, ultimately, it's the child and the map together and they are off on their own.

(p. 28)

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