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## EFFECTIVE TEACHING STRATEGIES FOR IMPROVING READING COMPREHENSION IN K-3 STUDENTS

The goal of *Open Court Reading* is to set young students on the path to becoming lifelong readers—readers who approach reading with enthusiasm and who view it as a pleasure as well as a powerful tool for learning and for taking charge of their lives. In brief, *Open Court Reading* wants to ensure that young students become solid readers who can read and want to read. Good readers read with fluency. They move smoothly through text, effortlessly and accurately translating sound/spellings to words and linking words with their meanings. But good readers do more than read words. They understand that the words they read work together to create meaning—that is, good readers read with comprehension. Good readers are strategic readers who think about what they read, develop specific reading strategies and skills, and learn to apply these strategies and skills as a way to get meaning from a variety of text types. From kindergarten on, instruction in *Open Court Reading* progresses systematically toward independent reading, providing students with the strategies and skills they must have to read with comprehension. This guide is about comprehension. Drawing from time-honored and classroom-proven research, it focuses on what is known about the makeup of skillful comprehension and about effective comprehension instruction.



**Being strategic is not a skill that can be taught by drill; it is a method of approaching reading and reading instruction.**

## Comprehension Instruction and the Common Core State Standards

The Common Core State Standards (CCSS) (2010) takes a broad-based approach to literacy, by which students must “learn to read, write, speak, listen and use language effectively in a variety of content areas.” (Page 3) More specifically, the CCSS are a set of standards for reading literature and informational text that students are expected to achieve by the end of a specific grade level. The standards DO NOT define the instruction necessary for students to achieve the end-of-grade standards. Nowhere in the CCSS are “strategies” mentioned. Nowhere in the standards are suggestions for how to teach comprehension. Thus, for many educators this is interpreted as there is no need to teach strategies.

### The standards do

- emphasize the importance of reading complex or challenging texts, texts that include demanding vocabulary and academic language.
- require students to organize ideas across text using a variety of forms, e.g., compare/contrast, and require background knowledge (Shanahan, Fisher and Frey, 2012).

### Teaching students how to be strategic readers

- allows the successful reading of increasingly complex text because students learn how to make sense of text.
- increases engagement with text.
- enables students to draw on evidence in the text.
- involves teaching students comprehension strategies that help unlock the meaning of text.
- supports the attainment of the end-of-grade Common Core Literacy Standards.

### What is Reading Comprehension?

In broad terms, comprehension is the ability of readers to get meaning from text. How does this happen? By asking adult good readers to think aloud as they read, researchers have determined that these readers actively coordinate a number of conscious processes before, during, and after reading (Pressley & Afflerbach, 1995). Good readers are aware of how their reading is going and why. They know, for example, when a text is difficult to read because it contains many new ideas and when it is difficult to read because it is poorly written. They are adept at using their prior knowledge as they read to make predictions about what might happen next and to understand ideas as they encounter them (Paris, Wasik, & Turner, 1991).

Reading is a highly strategic process during which readers are constantly constructing meaning using a variety of strategies, such as activating background knowledge, monitoring and clarifying, making predictions, drawing inferences, asking questions and summarizing. Strategies are used in combination to solve problems, to think about text and to check understanding. Consequently, teaching comprehension strategies should focus on thinking (Harvey & Goudvis, 2000), problem solving and monitoring understanding. “Being strategic is not a skill that can be taught by drill; it is a method of approaching reading and reading instruction. Much more is required than knowing a strategy; becoming strategic calls for coordinating individual strategies. This coordinating involves altering, adjusting, modifying, testing, and shifting tactics as is fitting, until a reading comprehension problem is solved.” (Trabasso and Bouchard, 2002, p. 186) Reading strategically is higher order thinking. It involves transforming information and ideas. For example, summarizing requires evaluating and synthesizing information; making predictions involves combining facts and ideas and making inferences to formulate a type of hypothesis; making connections necessitates making generalizing; and clarifying require identifying problems and developing solutions.



Good readers are often selective, focusing their attention on the parts of the text that are most appropriate to their goals. Effective readers go beyond the literal meaning of text, interpreting what they read by filtering ideas in the text through their prior knowledge. Such interpretations often include an evaluation of the quality of the ideas in the text. Often, such associations are carried out intentionally by thinking about how the ideas in the text seem vaguely familiar and then recalling where similar ideas were presented or encountered. Readers also make predictions and form hypotheses about what will happen next, or what ideas the text will advance. In addition, readers continuously evaluate these predictions and hypotheses and revise them as the reading warrants. As they read, good readers vary their reading speed, sometimes skimming and sometimes rereading a section of text that is especially relevant to the reading goals. As they encounter new ideas during reading, they update their prior knowledge. Good readers make conscious inferences, such as determining the author's intentions for writing the text, clarifying the meaning of unknown words, and filling in information if they perceive gaps in an argument. They create mental images. If, for example, they are reading fiction, they create mental pictures of settings and characters. Good readers are strategic!

### What are Strategies?

Comprehension strategies are conscious or intentional plans that people use in order to achieve a goal (Roit, 2005) and are used deliberately to make sense of text (Afflerbach et al. 2008). Readers use strategies consciously to make sense of the text, remember critical ideas and integrate new learning into existing schema or prior knowledge. Students need to learn how to use strategies independently, to recognize and solve problems, and to delve deeper into text to make connections and inferences.

Reading strategies are not the same as instructional strategies. The goal of instructional strategies is to teach students how to make sense of text. Instructional strategies are the plans used by the teacher to teach comprehension. They include but are not limited to explicit explanation, modeling, pre-teaching, organizing learning and scaffolding. Strategies laid out in this chapter emphasize teaching and student engagement. Obviously, there is an interaction between both reading and instructional strategies.

Often the terms comprehension strategies, skills, and activities are used interchangeably. Comprehension strategies are used consciously by the reader to monitor and check understanding, to clarify confusion, and to process text. Strategies are situational and are used intentionally by readers. (McEwan, 2004). In contrast, once skills are learned, they are used unconsciously, i.e. decoding words or breaking words into syllables. Skills are also the tools readers use to organize the structure of text, e.g., main idea and supporting details, compare and contrast, sequencing, etc. Activities such as charts like KWL (McEwan, 2004) or terms such as “click and clunk” and “get the gist” are not comprehension strategies themselves but instructional devices to encourage students to use comprehension strategies as they read. Props such as strategy character puppets may catch children's interest but they may also take students' attention away from the strategies themselves.

In contrast, skills are applied automatically rather than deliberately and yield a high level of performance with minimal effort (Afflerbach et. al, 2008; Dewitz et al. 2009). Learning skills requires practice in order to become automatic. Decoding is a skill that when it becomes automatic results in fluent reading. Readers read most words without ever thinking about the sounds and spellings. Similarly, fluency is a skill that develops over time, allowing readers to access text with automatically so they can focus their mental efforts on making sense of what is being read.

### The Interplay of Strategies and Skills

Simply put, comprehension strategies are the cognitive processes and procedures that readers bring to the content of reading; comprehension skills are the procedures they use to grasp the organizational structure of the text. Readers employ various comprehension strategies before, during, and after an initial reading of a text. Comprehension skills, however, are best employed as readers reread a text and do close reading. Why is it important to provide students with instruction in comprehension skills? The most persuasive answer is given by Pearson and Camperell (1985): When we identify a variable, including a text structure variable, that looks like it might make a difference in comprehension, we ought to adopt a frontal assault strategy when considering its instructional power—teach about it systematically and make



**The foundational skills of reading are necessary but not sufficient. Skills must work in partnership with strategies.**

certain students have a chance to practice it (p. 339). Research states that the ability to identify and use text structure can make a difference in students' text comprehension: Good readers are able to use structure, whereas poor readers are not (Meyer, Brandt, & Bluth, 1980). Therefore, teaching students the skills necessary to use text structure is another way to improve their reading comprehension.

A very practical way to understand both the distinction between strategies and skills and their interaction is to think about the sport of basketball. Players practice different types of shots - three-point plays, hook shots and dunks; they work on different types of dribbling from pull back to crossover to behind the back. All of these skills become automatic with practice, just as reading skills become automatic. . But skills are not sufficient to win the game. Players also learn to play strategically by looking at where players are positioned, where a shot can be made, and which shot makes the most sense. Reading the court and players is key to knowing which play to make. The same is true with reading. The foundational skills of reading are necessary but not sufficient. Skills must work in partnership with strategies. Skills are used automatically; strategies are used thoughtfully and intentionally. Like basketball shots, main idea, sequencing, compare and contrast, and other reading skills need to be learned and practiced. They are foundational skills that enable the reader to use comprehension strategies effectively. For example, understanding the concept of main idea underlies summarizing.

### **Making Inferences: The “Hallmark” of Good Readers**

Authors do not always provide complete and explicit descriptions of or information about a topic, a character, a thing, or an event. They do, however, provide clues or suggestions that readers can use to “read between the lines,” thus allowing the reader to make inferences based on the information in the text and/or on the reader's own background knowledge.

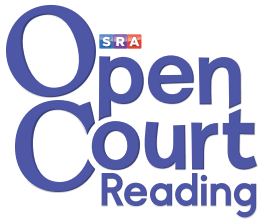
The ability to make inferences from given information in a text and from background information has been described as the heart of the reading process (Anderson & Pearson, 1984). In fact, it has been shown that students significantly improve their ability to get meaning from reading when they are taught directly how to draw conclusions and make inferences (Hansen & Pearson, 1983; Raphael & Wonnacott, 1985). Indeed, research strongly supports the value of providing even young students with such instruction (Pearson, Roehler, Dole, & Duffy, 1990).

Making inferences is sometimes referred to as a strategy and sometimes as a skill. The National Reading (2000) panel did not find research sufficient to consider it as a strategy. A more recent literature review by Kispal (2008) also supports making inferences as a critical comprehension skill, one that is done automatically while reading. Regardless of whether inferencing is called a strategy or a skill, making inferences plays a key role in comprehension (McNamara and Kendeou, 2011). Making inferences involves creating a meaning that is not explicitly stated by the author. Readers use clues in the text plus their own personal insights and experiences to make meaning of the text.

“Making inferences” impacts multiple strategies: activating prior knowledge, making predictions, summarizing, visualizing, clarifying, and asking questions.

Making inferences forces the reader to engage in building meaning. When readers infer, they are interacting personally with the text. Skilled readers make inferences almost subconsciously by filling in the blanks with logical assumptions based on text clues and prior knowledge. This allows for some creativity and leads to a wider variety of interpretations of most fictional genres. When it comes to non-fiction, where texts deal with facts, interpretations are more limited. Regardless of whether readers are making inferences with fiction or nonfiction, they must be able to defend their inferences by explaining what prior knowledge and text information they are using. (Keene & Zimmerman, 1997).

Making inferences may occur at the word level (inferring the meaning of a word), at the text level (making inferences about characters' motives or causal relationships) and at a global level (inferring the theme or figuring out the relationship between characters across texts).



## Research Evidence for Strategy Instruction

Reading comprehension involves the reader interacting with the text to construct meaning (Snow, 2002). Proficient readers use a variety of strategies resulting in active, intentional and self-regulated reading (Trabasso and Bouchard, 2002) as they prepare to read, as they read and after they read. Research has identified a common set of strategies that support successful reading: activating background knowledge, summarizing, predicting and checking predictions, clarifying, asking questions and finding answers, visualizing or imaging, and making connections. (Rosenshine et al. 1996); Gambrell and Koskinen, 2002; National Reading Panel, 2000; Gambrell and Bales, 1986; Hansen & Pearson, 1983).

In addition to these strategies, researchers also have found that proficient readers are characterized as having metacognitive awareness (Campione, Brown, & Connell, 1988). Metacognitive awareness allows readers to monitor their understanding while reading, recognizing when their comprehension breaks down and knowing what to do about it. For example, if a paragraph does not make sense, a skilled reader might reread the paragraph more slowly or dissect it into manageable units.

Pressley (2000) notes that it is beneficial to begin instruction by teaching individual comprehension strategies. He emphasizes that it takes time for students to develop strategic knowledge and proficiency. When students are taught comprehension strategies systematically throughout the grades, they gradually become more adept, flexible and independent in their use of strategies. Once individual strategies are acquired, students should learn to employ multiple strategies flexibly and in combination, as necessary to make sense of what is being read (National Reading Panel, 2000). Students, even high-achieving students, benefit from explicit instruction and modeling of how to use strategies (Duffy, 2002). The instructional goal is for students to understand, internalize and use strategies independently. They need to learn what strategies are, why they are important, and how, when and where to apply them.

## Comprehension Strategies

Effective readers are constantly monitoring their understanding, assessing their understanding, and identifying when comprehension breaks down. They are metacognitively aware or in control of their own thinking throughout their reading. Luke (2006) compares this metacognitive or self-regulatory behavior to a foreman who oversees – monitors – all the parts of a project. When the project is moving along smoothly, there is no need for intervention. Depending upon the problem, the foreman may need to stop the project to take some action. And this is exactly what proficient readers do. When reading comprehension is moving along smoothly, skilled readers do not need to stop. However, when reading challenging or complex text, these same readers recognize when comprehension is interrupted, identify the cause or problem like unfamiliar words or confusing referents or inconsistent ideas, and use strategies to clarify and resolve the problems. They also use strategies such as predicting and making connections to increase engagement and promote deeper meaning.

Novice and struggling readers seem to lack awareness of thinking about what is and is not making sense as they read. They are often unaware of when they do not understand what they are reading. This is painfully evident when a struggling reader turns two pages instead of one and continues on the wrong page even though it does not make sense. They often are focused so much on reading the words that they cannot think about how the words connect to create meaning. Good readers, on the other hand, are aware of when their comprehension breaks down or if they are confused by the text and have “fix up” strategies to resolve their problems. They also know that it is OK to ask for help from others.

Activating Prior Knowledge Background or prior knowledge comes from life experiences, either real or vicarious (Knuth and James, 1991). Often people presume that background knowledge comes just from actual experiences, but it is often acquired through reading, movies, discussion, or any number of other indirect means, all of which can increase background knowledge. In fact, reading is one of the most important ways that people build prior knowledge (Marzano, 2004). Prior knowledge is the sum of all the knowledge that readers have acquired, experienced, and stored in memory or schema. Schema theory (Anderson and Pearson, 1984) proposes that knowledge is organized in a network of structures called schemata. Readers not only have schemata for ideas and experiences but for text structures such as fiction and nonfiction. When readers activate their schema (their prior knowledge) they link to this



**Prior knowledge enhances comprehension by enabling readers to comprehend text better, to make connections, to predict and to develop inferences as they are reading.**

network of information. As readers interact with a text, they continually relate what they are reading to their prior life and reading experiences. Readers' interest in what they are reading influences the links they continue to build in their schema which is one reason why motivation increases comprehension.

The relationship between prior knowledge and reading is obviously reciprocal. Prior knowledge enhances comprehension by enabling readers to comprehend text better, to make connections, to predict, and to develop inferences as they are reading. As readers learn more from reading, they are also expanding their knowledge, which is then stored in memory and connected to schemata, which are activated at a later time as background or prior knowledge.

Activating background for proficient readers happens quite naturally as they preview a text before reading, browsing through the text, reflecting on the author, and noting information in the book jacket or other visuals. What do I already know about this topic or type of text? What have I experienced or read about this topic?

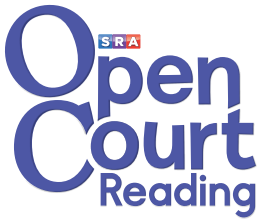
Making conscious what is already known helps the reader link new information with what is already known – make connections, increase the ability to make inferences, improve recall of content, view and reconcile conflicting information, interpret text and absorb new information (Kujawa and Huske, 1995; Pressley, 2000). For students with limited background knowledge, it may be necessary to help them build background prior to reading (Stevens, 1982; Hayes and Tierney, 1982).

When reading fiction, readers may activate prior knowledge by browsing the text to use one or more of the following browsing activities to activate background knowledge.

- Think about what you know about the author.
- Identify the type of selection, e.g., fiction vs non-fiction.
- Identify the genre, e.g., fantasy vs. realistic fiction.
- Notice interesting words, text, or illustrations.
- Obtain a general idea of what a selection is about.
- Get a general idea of setting and characters in a fictional story.

When reading informational text, readers may move beyond browse to skimming the text for specific information and organization. Skimming is defined as “the rapid reading of text to get a sense of text structure, organization and gist” (Spafford and Grosser, 2005, page 143) focusing on chapter previews, headings, bolded type, titles, and marginal glosses.

- Notice anything interesting including text features.
- Identify the structure of the text.
- Set a general idea of what a selection is about.
- Notice problem words, text or confusing illustrations or particularly surprising information.
- Decide what one expects or wants to learn from the text.
- Obtain a general idea of what an expository selection is about by reading title, headings, subheadings, and first sentences of paragraphs.
- Raise wonderings and questions.



Browsing and skimming should be turned into questions to help students take ownership of the strategy. For example, students might ask: How does this connect to what I already know? How is this going to help me learn more about the topic? Why am I reading this? How is this relevant to what I am studying or researching? While activating prior knowledge is clearly a pre-reading strategy, readers should revisit after reading what they identified during browsing or skimming. This involves combining new information with prior knowledge to update one's schema and, if necessary, reconciling information in the text with what one already knows and revising prior knowledge based on the new information.

While background knowledge is usually activated prior to reading a selection, background knowledge should be used throughout the reading process to deepen understanding, organize information, and facilitate recall.

**Making Connections** Directly connected to activating prior knowledge is making connections. Results of analyses by the National Reading Panel (2000) suggest that comprehension is enhanced when readers actively connect ideas in print to their own knowledge and experiences. Making connections helps deepen understanding and the retention of content and helps students appreciate the “power of thinking about their own schema or background” (Harvey and Goudvis, 2000). Readers connect ideas within the text, connect ideas to what has been read in the past, and connect ideas to personal experiences. These have been framed as text-to-self, text-to-text, and text-to-world connections (Keene and Zimmerman, 1997; Harvey and Goudvis, 2000). Making connections to self, text, and world allows readers to think about how the information in the text fits in with and expands foundational knowledge or existing schema.

Making connections is one of the most accessible strategies to help students understand what they read. Keene and Zimmerman (1997) suggest that students be taught three basic types of connections (Keene & Zimmerman, 1997, Miller, 2002).

1. Text-to-Self connections that the reader makes between what is in the text and the reader's own personal experiences.
2. Text-to-World connections that the reader makes to what they know about the world.
3. Text-to-Text connections that the reader makes to other things they have read

All too often students make connections that are fairly simplistic, for example, I can connect with this character because he lives in a city, just like I do. While this is a legitimate text-to-self connection, students need to be encouraged to think deeper, beyond literal and superficial connections. They need to add details and make inferences when they make connections. For example, if this character lives in the city, then maybe he lives in the same type of apartment that I do. If he does, then maybe he has to share a room with his brother because city apartments can be small.

Young children's connections during shared reading, for example, can be superficial and tend to move conversation away from the text as they begin to “relate their own narrative.” With effective teacher modeling and feedback, students begin to be more precise in their connections to the text.

Making connections while reading informational text requires readers to identify new content and to connect it to what they already know and may involve one or more of the following activities:

- Identifying new information and connecting it with one's background knowledge
- Explaining similarities between new information in the text and what one already knows
- Reconciling information in the text that contradicts what one already knows
- Forming questions about what one still does not know and rechecking the text for the information
- Using additional sources to add to or to check or confirm information
- Combining sources to organize new information



**Predictions are not wild guesses. They involve making inferences, using information in the text and prior knowledge to anticipate what will happen next.**

Predicting, confirming predictions and making predictions motivates and engages readers, provides direction for reading and leads to deeper thinking about text (Harvey and Goudvis 2000). Predictions are not wild guesses. They involve making inferences, using information in the text and prior knowledge to anticipate what will happen next. For example, while reading Maurice Sendak's *Where the Wild Things Are*, "That night Max wore his wolf suit and made mischief of one kind and another..." the teacher prompts the students to make a prediction... Max is in a monster suit and he's chasing after his dog with a fork in his hand. This might be a good place for us to stop and make a prediction. What can we predict that might happen next with Max? (Students) He is chasing the dog with a fork so he might hurt the dog. We get in trouble at home when we run around like that. I bet Max's mom is going to be mad at him.

As readers continue through the selection, predictions can be confirmed or verified, updated or revised based on new information or not confirmed or not verified. Notice the use of the terms "confirmed" or "verified" and "not confirmed" or not "verified" rather than "right" or "wrong". The reality is that predictions are similar to conjectures and when not born out should result in new learning. Therefore, even after reading, students should reflect on their predictions.

To continue the example, (teacher) **Now, can we confirm the prediction that Max was going to maybe hurt the dog and get into trouble?** (students) He didn't do anything to the dog but he did get in trouble. It's kind of a time out but I don't think his mom was that mad since she brought him some dinner to his room. (teacher) **That was a good confirmation. Max did get in trouble but you could tell his mom was not very mad because she brought him dinner.** (student) But he didn't hurt the dog. (teacher) **That's right, we can't confirm that part of our prediction but we learned that sometimes the illustrations don't always give us the best clues for our predictions.**

Students need to learn to do the following to make thoughtful predictions:

- Identify clues in the text and one's background knowledge to support a prediction
- Decide when to make a prediction based on a turning point or other point in a story
- Confirm or verify predictions during and after reading
- Make and evaluate alternative predictions
- Review predictions and thinking about why they were or were not confirmed or verified

When the process of predicting and confirming predictions is first being introduced and practiced by students, it is helpful to record predictions to be sure they are revisited. For example,

As we make predictions today, I am going to write them down so we can revisit them to see which predictions were confirmed and which were not confirmed in the story. Older students can take responsibility for writing down their own predictions on sticky notes as they read and post them on the appropriate page. This provides an opportunity for students to self-regulate strategy use and when shared with other students, provide a model for others. Confirming also requires students to reread and to check author clues which supports close reading.

Questions should focus on the characters and their motivation, reactions, and relationship to other characters; questions related to the setting and its impact on the characters and situation; and questions related to important events and their outcome. Questions may also focus on clarification within the text while others might explore the deeper meaning of the story. Modeling different types of questions helps students build understanding of why to ask questions, when to ask questions, and what types of questions to ask. For example:

- Asking questions about characters and events that can be answered by finding explicit information in the text, questions that begin with who, where or what.
- Asking questions about important points in the story that go beyond merely facts with questions that begin with how or why. For example: Why did the prince decide to ignore the witch's threat?





- Asking questions that can only be answered by making inferences from the text. For example: I wonder how her brother felt after she said that.
- Asking questions about genre, style, and author's purpose.
- Asking open-ended questions that lead to discussion and clarification of ideas. For example: What do you think the character meant when she said . . . ?
- Asking questions that go beyond the text and lead to more reading or research. For example: I still wonder what could be done to make seeds grow faster.
- Asking questions that monitor and check understanding. For example: What isn't making sense here? What is causing my confusion? How do these ideas fit together?
- Returning to questions during and after reading to discuss possible answers and revisiting the text to check for clues.
- Readers may raise questions about the author's technique, its theme, and its relationship to other books by the same or other authors, such as: How is this book like other books by this author? Or: Why did the author start telling the story in the third person and then switch to the first person?

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**Asking Questions and Finding Answers** Harvey and Goudvis (2007) explain that "Questions open the doors to understanding." (p. 18). Generating questions about the text propels the reader forward (Harvey and Goudvis, 2000). Asking questions gives students reasons for reading and engages them with the text, two essential behaviors of skilled readers. Generating questions and determining answers give readers a means of checking their understanding of the information stated in or implied by the author and are also a vehicle for finding evidence in the text to support answers, a key behavior in the Common Core State Standards. They help readers clarify confusion, spur them on to investigate further and are proof that they are thinking about what they are reading as they interact with the text (Harvey & Goudvis, 1997, Miller, 2002). In addition, unanswered questions encourage students to read beyond the text and motivate them to do research in search of answers.

When reading fiction, sometimes there really is no answer to a question or the question itself is unimportant for understanding the story. For example, while reading a story about a dog, (which was pictured with floppy ears and long hair that covered his eyes), a student asked, I want to know what kind of dog it is. After reading, the teacher asked if there were any questions that were not answered by the author. The student who asked the question raised his hand and told the class, The author didn't answer my question but it really doesn't matter anymore because the important part of the story is about how the boy and the dog became best friends. The teacher explained that not all questions are answered in the text. While some unanswered question can be answered by sources other than the book, sometimes there may not be an answer to a question, such as what happened after the story ended. Those questions remain in the reader's mind unless answered by the reader's imagination.

It is important to distinguish analysis questions from those that occur in response to the literature. In responding to literature, readers' questions emerge from their engagement with the narrative. They might wonder what happens to the characters during and after the narrative. Reader response questions are products of their "living through" experience. They often precede a prediction about what the characters may do or how the plot will take a turn. Teachers need to model and prompt students to ask questions that focus on the aesthetic experience, especially with the first reading. A revisit to the text



to look at the writer's craft or author's purpose is appropriate, but it changes the reader's stance to one of analysis. The strategy of question-asking from an aesthetic stance should reflect the natural musings of a reader immersed in the world co-created by reader and author.

One way to encourage students to do this when reading fiction is to frame questions as wondering. Wondering is a natural response to reading and helps the reader to enjoy and understand the text better or prepare them for what will happen next in a narrative. Often the wondering leads the reader to make inferences. For example, returning to *Where the Wild Things Are*, the teacher might model with a think-aloud: I wonder what made Max act so wild. Maybe he was tired of being inside the house or maybe he was just bored and wanted to use his imagination and pretend he was a real monster.

Informational text demands close attention by the reader. Students who have poor comprehension of informational text often are unable to recall information or to answer questions about the text (Raphael, 1986) and need support to develop good questioning skills. According to Chen et al, (2010) students should learn to use the basic five W questions (who, what where, when and why) and the one H question (how). Early in the process, students often focus on asking factual questions that usually can be answered in the text: Who invented the automobile? What is the largest planet? Where do armadillos live? When was Lincoln born? Ultimately, students should be generating questions that focus on problems (How can cars run on electricity?), causal (Why are African elephants in danger of becoming extinct?), conditional (If, we don't drive as many cars, then will smog disappear)? and temporal (How long can people live on the space station without adverse effects?).

Breaking the strategy down in to manageable pieces can help students build understanding of why to ask questions, when to ask questions, and what to ask. While readers generate questions about the characters, setting, plot, and other elements of story grammar, they should also be asking questions

- that can be answered by finding explicit information in the text, questions that begin with what, where, or who
- about important points in the text that go beyond merely facts with questions that begin with how or why,
- about something one wants to know and it with the teacher's support,
- that can only be answered by making inferences from the text,
- about genre, style, and author's purpose,
- that are open-ended and lead to discussion and clarification of ideas, such as what did the author,
- that go beyond the text and lead to more reading and research
- that monitor and check understandin. For example: What isn't making sense here? What is causing my confusion?

Visualizing creates mental images or visualizing personalizes reading and engages the reader directly with the text (Harvey and Goudvis, 2000). Visualization is not just a retelling of the specific words in the text. When students read Arnold Lobel's words, "toad sits by his garden and waits" and are asked to visualize, they close their eyes and typically create a "literal picture": I see the toad sitting in his garden. Teachers should help students to use visualization to interpret and make inferences while they are reading. The images of a characters, situations, or settings may change over time as the author adds new information. In addition, readers use their senses to create these visualizations how the character might feel or look like or how the setting conjures up certain smells, feelings, and sounds. Keeping this in mind, an effective think aloud might be: I can just see Toad sitting there. He's getting impatient because his seeds aren't growing like Frog said they would. He probably isn't very happy since nothing is happening. When I visualize Toad, I can tell how he feels.



Students may start with literal pictures but should be encouraged to move beyond that by interpreting feelings and sensory elements and visualizing

- A “literal picture” of the character, setting or situation
- With the senses (smell, hear, touch in addition to what the reader sees) to expand the mental image and to infer beyond the text
- Using background knowledge to infer beyond the text

Although visualization is more often thought of when reading narrative texts, visualization or constructing mental images is an effective strategy for students to use for comprehending complex informational text. Visualizing passages can help students organize and remember information (Trabasso and Bouchard, 2002) as well as to recognize when information is incomplete or inconsistent (Irwin, 1991). For example, in a process-explanation structure, which explains how something works or is built, a student can visualize the process, which helps with information retention as well as the identification of confusing or inadequate information in the text. Visualization also involves both making connections and inferring (Harvey and Goudvis, 2000). In another situation, a group of students were reading about different sources of energy, wind being one of the sources. The text referred to “wind farms.” At first the thought of a wind farm, it made no sense when they visualized a traditional farm with crops growing in rows. When one student suggested that they think about the turbines as crops, they were able to visualize long rows of wind turbines, neatly laid out like crops on a farm. The students then inferred that a “wind farm was an enormous area of land with wind turbines planted or erected in long straight rows.”

Unlike fiction, there is less room for interpretation when visualizing nonfiction. It may be helpful to:

- Visualize a segment of text using author
- Create a time line
- Visualize beyond the words in the text
- Make diagram of a complex process.
- Illustrate a concept or draw a map.
- Aggregate information and chart it
- Visualize the main idea of the text details

Summarizing The National Reading Panel (2000) analyses found that summarizing increases engagement by focusing on the main ideas rather than the details. Summarizing requires students to process the text by omitting irrelevant information and generalizing ideas various several examples. In order to summarize, students must pay more attention to the text while they read or reread it. This also results in increased engagement. Summarizing helps students understand the structure of the text. Summarizing narrative text involves focusing on the story elements. Effective readers do not wait until the end of a text to summarize but rather create a series of summary statements as they are reading to check understanding and build meaning. Students need to learn what these logical points are, for example, the end of an episode. Summarizing informational text, like fiction, involves identifying the gist, the main thesis, the key idea(s) or main point(s) of what was read. Creating a summary for informational text is often very challenging for students, since there is a tendency to include details, not just the main ideas.

For younger students, summarizing begins by talking about or retelling what they remember about the story. Sequence cards, story maps, and other graphic organizers offer the scaffolding needed for students to summarize text. For example, in kindergarten, students might use sequence cards to retell the events in terms of what happened first, next and last. By first grade they identify and use basic story elements to retell the story. Second graders can learn to summarize the plot in chronological order by using a graphic organizer.



The literature on teaching summarizing contains a range of activities, many of which do not result in the development of good summaries. For example, having students continuously add to a summary that one student started, only teaches students that “more is better” when conciseness should be the focus. The goal of instruction should be moving students toward identifying the central idea as stated in the text or in their own words. The following is a continuum of skills leading to summarizing. Summarizing is a complex skill and takes years to develop. Young children have difficulty with the skills necessary to for summarizing. They delete information but don’t combine or condense details. Learning to paraphrase precedes their ability to begin combining and condensing. This continuum can be helpful for the scaffolding students need to become more proficient in summarizing.

- Retelling anything remembered.
- Retelling (paraphrasing) in one’s own words.
- Retelling ideas in sequence.
- Summarizing the main idea and details.
- Recognizing convenient or necessary spots for summing up, not just at the end of every paragraph but at the end of chapters and key story events.
- Summing up the most important information concisely by creating a gist statement.
- Using inferences to summarize (Gear, 2006).

All these strategies should be employed throughout the reading process. As students become proficient using strategies and engage with each other to discuss problems, they need to appreciate that what is a problem for one student may not be a problem for another. An unknown word for one student may be a familiar one to another. Students may come up with different visualizations or connections based on their own personal experiences. Strategy instruction helps students understand that interpretations of text can and should vary across readers. While there may not be one “right” answer to a question or different strategies might be used to solve a problem, students should always be encouraged to discuss the problems, share solutions and respect different interpretations of stories.

### Teaching Comprehension Strategies

Strategy instruction is most effective when strategies are explicitly taught (National Reading Panel, 2000; Duffy, (2002) in the context of actual reading. This involves the instructional strategies of explanation plus modeling or demonstrating the strategy as to how and when to use it (Dewitz et al. 2009). In addition, instructional strategies should include scaffolding by teachers and opportunities for students to practice and apply strategies (Palinscar and Brown, 1984; Rosenshine et al., 1996). While the teacher serves as the instructional leader initially, students are actively engaged in the process and should be gradually given the opportunity to take over responsibility for recognizing when and how to use strategies. Direct or explicit instruction involves the following process:

Strategy Explanation involves describing the strategy and explaining why it is important to use. Explanations contribute to the ability of students to become independent in strategy use and should be clear and succinct. Once the students are sufficiently exposed to the strategy, teachers should ask them to explain the strategy and how it benefits them as readers. Explanation helps students to think about when they have used the strategy previously and motivates them to try the strategy on their own or when prompted. This explanation stage takes very little time but should not be omitted. For example: Today, we are going to focus on the strategy of predicting. Making predictions helps us to think about what will happen as we read. Some people call it making a guess about what is going to happen. But we don’t just make a guess without thinking. When we make a prediction, we think about clues the author gives us in the story and we also think about what we have learned from our own experience or other stories.



Modeling Thinking aloud is a common and effective form of modeling and helps students focus on building meaning (Bauman, Seifert-Kessel and Jones, 1992) and understanding how successful readers construct meaning while reading. Thinking aloud is based on the work of Bereiter and Bird (1985) and is a critical component of strategy instruction. Think-alouds go beyond direct explanation by opening a window into the minds of proficient readers. They incorporate the how, why, and when of specific strategy use through the actual verbalization of the thinking while reading.

For example: While reading Arnold Lobel’s “The Garden”, in *Frog and Toad Together*, the teacher uses a think aloud to model predicting, I think that this is a good place to stop and make a prediction. Frog has just told Toad that the seeds will grow very soon after he plants them. But I know that when we planted seeds in our school garden, it took quite a bit of time for them to sprout. I predict that Toad is going to have to wait awhile to see his garden grow. Let’s read on and see what happens.

The intent behind using think-alouds is to help students develop their own ability to think about text, monitor their comprehension, engage with the text, and to solve problems while reading. Think-alouds focus on ideas and problems as they are encountered while reading. Initially the teacher does the modeling and thinking aloud to make thinking “visible” – to let students in on how, when, and why proficient readers use strategies. As students begin to take over responsibility for strategy use, they should be encouraged to think-aloud themselves.

Scaffolding Shifting responsibility to students requires scaffolding. Teachers can scaffold learning to enable students to use comprehension strategies independently by prompting students at appropriate points during the reading of the text. Scaffolding support includes additional explanation or modeling as well as feedback. It is helpful for the teacher to communicate what students are doing well, what can be improved and a model of how to do so. Although teaching comprehension strategies requires time and effort, scaffolding is a support that should be gradually released.

For example: Toad has tried a lot of things to make his seeds grow. Can we retell what Toad did to make his seeds grow? Let’s look back at what he did by reading closely and pointing to the text evidence.

- Teacher: The first thing Toad did was to ....
- Students: He yelled at the seeds...
- Teacher: And then Toad...
- Students: Toad read to the seeds.
- Teacher: And then...
- Students: Toad sang song and played music.
- Teacher: And the seeds still didn’t....
- Students: They didn’t grow.
- Teacher: That was a good retelling. He tried all of those things but Toad’s seeds just didn’t grow.

Note that scaffolding of strategies involves a dialogue between the teacher and students. In the example above, the teacher and students create the retell, so that the students can be a part of providing the think-aloud model.

Practicing and applying strategies Students should be encouraged to stop and think aloud by sharing strategies they use. Reciprocal Teaching (Palinscar & Brown, 1984) and Transactional Strategies Use (Pressley et al., 1994) emphasize the importance of student interaction and teacher-student dialogue. Students can discuss and compare their strategy use with one another. Older students can use sticky notes to identify strategies they use while reading independently and then discuss and compare their strategy use with partners or in small groups. This shift of responsibility from the teacher to the students takes time and does not happen overnight.



Pressley & Woloshyn (1995) recommend teaching a few strategies at a time and modeling and explaining those strategies a lot. In fact, teachers need to be prepared to do a lot of re-explaining. Once students begin assuming responsibility for using strategies, they should be encouraged to apply this new knowledge when reading outside of the actual reading lesson. Teaching the strategies throughout the day increases the likelihood that students will apply to apply the strategies to other academic areas.

Student initiation and use of strategies increases leading to independence.

Teacher direct explanation and use of think-alouds followed by scaffolding and gradual release of control.

When modeling strategies, we assume that students understand what is involved with creating a summary, asking thoughtful questions, or predicting. We talk about monitoring understanding yet many students really have no idea what this means, what it looks like, or what to do. The first step in strategy instruction is to make no assumptions. In order to help students appreciate the versatility of strategies, each strategy below is segmented into components to make teaching more explicit and to scaffold to make strategies accessible to and usable by all students.

#### Teaching Skills to Access Complex Text

Organizational structures should be introduced systematically and judiciously and should be taught explicitly. Once taught, each structure should be reviewed cumulatively (California Department of Education, 1999). This is not to say, however, that skills instruction should occupy a great deal of class time. Instructional sessions should be concise and always should be conducted within the context of reading a text. In addition, skills instruction must alert students to the fact that a particular text type, such as an article in a magazine or a chapter in a novel, may use more than one type of organizational structure to arrange information. That is, it prepares them to be flexible in their use of comprehension skills to access complex text and to switch from one to another, as required, as they read a text. Which comprehension skills should be taught? Unfortunately, there is no single, agreed upon set of essential comprehension skills to be taught. Indeed, one source lists twenty-six “traditional comprehension skills” (Fry, Kress, and Fountoukidis, 1993). To further complicate matters, the same skill may be referenced under several different names (Pearson and Johnson, 1978).

Obviously, not enough time is available in a busy school day to teach the entire universe of comprehension skills. Nor would this approach be productive. It is far more practical and logical to select for instruction those skills that are most useful to readers—that is, skills that can be used with the greatest variety of texts and reading situations (Baumann, 1988; Twining, 1985). These skills can be used not only to access complex text but also to use as tools in students’ own writing. Among these are skills that students can use to:

- Identify and consider the author’s point of view.
- Identify and understand the author’s purpose for writing.
- Identify and understand cause-and effect relationships.
- Understand a sequence of events.
- Compare and contrast ideas, characters, and events.



- Classify and categorize information.
- Identify and distinguish main ideas and details.
- Draw conclusions and make inferences from what is read.
- Distinguish fact from opinion.
- Distinguish fantasy from reality.

Some of these skills—such as identifying cause-and-effect relationships, identifying main ideas, understanding a sequence, comparing and contrasting, and classifying and categorizing—help students organize text information. Others—such as understanding the author’s point of view and purpose and distinguishing fact from opinion—lead them to a deeper understanding of a text. Although most of the skills mentioned can be employed in analyzing narrative text and informational writing, it is especially helpful for students to have a repertoire of skills to use as they read expository texts. Expository text is the type of writing students most often encounter in their textbooks, as well as in newspapers, magazines, manuals, reference books, and guides. The following section takes a closer look at each of these skills and at how they work to help students better understand the texts they read.

**Identifying Cause and Effect Relationships** It has been argued that helping students identify and understand cause-and-effect relationships is one of the most important aspects of comprehension instruction (Pearson & Johnson, 1978). After all, seeking causes and analyzing effects are primary concerns of a wide spectrum of society; everybody seeks to identify and understand the why and the what of everyday life.

In reading expository text, knowing what causes events to happen, such as economic depressions or droughts, can help readers put together the logical explanations needed to understand their social studies and science textbooks. Understanding what caused a character in a novel to run away from home or steal a loaf of bread can contribute to students’ involvement in a story.

As part of instruction in cause-and-effect relationships, it is valuable for students to learn signal words, which are key words and phrases that alert students to this type of organizational structure. Called causal indicators, these signal words include the following: because, for, since, therefore, so, consequently, reason for, source of, led to, in order that, due to, and as a result.

**Understanding a Sequence** As they read, it is often difficult for intermediate-grade and younger students to understand the progression of developments in a plot, of steps in a scientific process, of the evolution of specific schools of art, or of events in a historical context because students do not have a firm grasp of time-and-order sequence. Young students, for example, seem to equate time sequence with the sequence of words they hear or read. That is, they interpret a sentence such as “Before Sam did his homework, he played computer games” as meaning that Sam did his homework first, and then he played computer games (Clark, 1971, cited in Pearson & Johnson, 1978). They seem to ignore or misunderstand time-and-order signal words such as before, after, first, and next. Young students also have difficulty placing events in time order and answering correctly questions about which event in a sequence came first, last, and so forth (Pearson, 1977, cited in Pearson & Johnson, 1978). Clearly, instruction about how to recognize and understand time-and order sequences of events can contribute greatly to students’ comprehension of a variety of texts. As part of this instruction, students need to become familiar with certain key words and phrases that signal sequential information. Among these signal words are the following: first, second, last, earlier, later, now, then, following, next, after, during, and finally.

**Comparing and Contrasting** Authors use comparing and contrasting to point out similarities and differences between two or more topics, including ideas, characters, settings, or events. The ability to recognize and understand compare-and-contrast text structures has been shown to improve comprehension for students at various grade levels (Meyer, 1984).

The compare-contrast text structure can be signaled by key words and phrases such as the following: like, as, still, although, yet, similarly, different from, opposite, same, too, in contrast, but, however, rather, and on the other hand.



Classifying and Categorizing Classifying and categorizing, which means putting like things or ideas together, is a natural human activity. When something new is encountered, an attempt to understand it is made by relating it to a class or category of similar things; for example, a kumquat is a citrus fruit, like an orange, a tangerine, or a lemon (Pearson & Johnson, 1978).

Because classifying and categorizing is such a common, natural activity, students benefit from knowing that authors often use this structure as a way of making new ideas and information easily accessible to their readers.

Identifying and Distinguishing Main Ideas and Details Authors of expository texts and narratives build arguments, develop ideas and plots, and generally write entire texts by stating directly or implying important, or main, ideas and then offering details to support those ideas. The ability of students to identify relevant information in a text, including main ideas and the relations among ideas, is crucial to full comprehension. It has been found, however, that students at all grade levels are not able to find and analyze the main ideas in textbooks, especially if the main ideas are implied rather than stated clearly (Seidenberg, 1989).

To be most effective, instruction in distinguishing main ideas should show students how to use their prior knowledge of the topic of a selection to help them determine what is more and less important. Helping them activate their knowledge of other text structures and of signal words—first, next, consequently, subsequently, therefore, and so on—aids them in organizing the text and subsequently figuring out what the important idea is in a paragraph, section, or chapter.

Distinguishing Fact from Opinion Biographies; accounts of historical events; reviews of books, plays, and cultural events; and other forms of expository text in which authors may take a particular perspective can pose special problems for students if they are unable to distinguish a statement of fact from a statement of the author's opinion. Often, students simply accept what is written as factual. Further, they often accept as factual something with which they agree strongly or that they see or hear repeated often (Heilman, Blair, & Rupley, 1998).

To evaluate the information in what they read, students need to know what makes a fact a fact and what makes an opinion an opinion. Typically, this means helping them understand that a fact can be verified or tested. It can be checked in a reference book or through reputable Internet sites; it is reported in the same way by any number of observers or writers. There is no disagreement among sources, for example, that American astronaut Neil Armstrong was the first human to set foot on the moon. That is a fact. An opinion, however, is not so easy to identify or characterize. Its validity cannot be demonstrated. Sources may disagree, for example, that Neil Armstrong was the greatest of all the American astronauts.

Instruction should include discussion of statements in a selection to help students identify factors such as dates and figures that can be used to determine whether or not the statements are verifiable. If discussion does not help students distinguish fact from opinion, lessons should be extended, perhaps to include trips to the library to find additional sources of information for cross-checking.

### Teaching Comprehension Skills to Understand Writer's Craft

Comprehension skills can also be used to understand why an author writes in a certain way or uses various literary elements to communicate. Recognizing these elements will not only enable students to comprehend a text better, but it also may help them use these same skills in their own writing.

Identifying and Considering the Author's Point of View In narrative writing, or fiction, point of view is the perspective from which an author presents the actions and events in the story. In general, an author uses either a first-person or third-person point of view. The characteristics of first-person point of view are as follows.

- The story is told by a character who is involved in the story and who describes the action and tells about the other characters.
- The person telling the story uses first person pronouns, such as I, me, we, our, and my.





- The story provides only the thoughts, feelings, and emotions of the character telling the story. The characteristics of third-person point of view are as follows.
- The story is told by someone outside the story who is not involved in the action.
- The person telling the story uses third person pronouns, such as he or she and him or her.
- The person telling the story is aware of all of the characters' thoughts, feelings, and actions.

Making students aware of an author's point of view can provide them with insights into the characters, events, and actions in a story. For example, in a story told from a first-person point of view, the narrator's opinions and biases might color his or her descriptions of other characters and of what is happening. Students who recognize this can look for other information in the text to help them form a full understanding of what they are reading. Understanding the author's point of view in an informational or persuasive text can help students grasp the perspective or position that the author takes on the subject matter. While the author's point of view usually mirrors the author's purpose, this may not always be the case.

**Identifying and Understanding the Author's Purpose** Every text is written for a purpose. Good readers use their knowledge of the author's purposes for writing to sort out what is important in a text from what is less important (Dole, Duffy, Roehler, & Pearson, 1991). Knowing why an author wrote a particular text gives readers an idea of what they can expect to find in the text. Authors write for a wide range of purposes: to entertain, to inform, to share personal experiences, and to persuade. If an author's purpose is to entertain, then readers can relax and enjoy what they read. If the author's purpose is to persuade, readers can get more from their reading if they keep in mind that the author is arranging, including, and excluding information in ways designed to convince them of the strengths of a particular perspective.

Other skills that may be used to understand and appreciate a writer's craft include:

- Identifying and understanding plot, setting, and character
- Distinguishing among various genres and learning the features of each
- Recognizing language use and literary elements, such as rhyme, alliteration, sensory details, and so on.
- Understanding text features

### Teaching Comprehension Skills

As with comprehension strategies instruction (Roehler & Duffy, 1984), instruction in comprehension skills progresses logically:

- Teachers introduce each skill through explanation and modeling. As part of rereading a text, teachers identify a skill that can be applied, explain how the skill can be used to read the text, and finally model how to employ the skill through thinking aloud.
- After introducing each skill, teachers remind students to use it on their own, providing prompts and hints about when its use is appropriate.
- Teachers gradually decrease their prompts and hints, allowing students to assume more and more responsibility for employing the skills on their own.
- Teachers limit the number of skills to one or two that can be identified clearly in the selection. Trying to have students concentrate on too many skills will confuse them and make it harder for them to use any of the skills successfully. If a selection has good examples of several different skills, teachers can return to the selection several times over a span of days.
- Teachers solidify the reading/writing connection by having students incorporate different text structures into their writing. As they use specific organizational structures in their writing, students develop a clearer understanding of how to identify them as they read.



- Teachers remind students often that the purpose of any skill exercise is to give them tools to use as they read and write.

### Conclusion

Students today are faced with ever increasing demands to read and read well. McNamara and Kendeou (2011) stress the importance of teaching reading as a process and that strategy instruction has been found to impact students' appreciation of reading as a process, the goal of which is to understand what is being read. But the ultimate objective of comprehension instruction should be student ownership of the strategies and skills, knowing when comprehension breaks down and how to address the problem and repair the breakdown. Teaching students to use a repertoire of comprehension strategies and skills can set them securely on the path to becoming lifelong readers. Many opportunities to read independently allow students to begin to coordinate the strategies they have learned; to adjust, modify, or change strategies and skills until they are able to make sense of text. The higher order thinking of strategic readers also enhances their reading experience and responses to literature and informational text. And once students take ownership of the process, they take it one step further—they take what they know, apply it to the unknown, and become creative thinkers who are able to assess problems from the comfortable position of knowing they have the skills and can acquire the knowledge they need to solve any problem with which they are faced.

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