

What every teacher needs to know about comprehension

Once teachers understand what is involved in comprehending and how the factors of reader, text, and context interact to create meaning, they can more easily teach their students to be effective comprehenders.

Comprehension is a complex process that has been understood and explained in a number of ways. The RAND Reading Study Group (2002) stated that comprehension is "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (p. 11). Duke (2003) added "navigation" and "critique" to her definition because she believed that readers actually move through the text, finding their way, evaluating the accuracy of the text to see if it fits their personal agenda, and finally arriving at a self-selected location. A common definition for teachers might be that comprehension is a process in which readers construct meaning by interacting with text through the combination of prior knowledge and previous experience, information in the text, and the stance the reader takes in relationship to the text. As these different definitions demonstrate, there are many interpretations of what it means to comprehend text. This article synthesizes the research on comprehension and makes connections to classroom practice. I begin by introducing a visual model of comprehension.

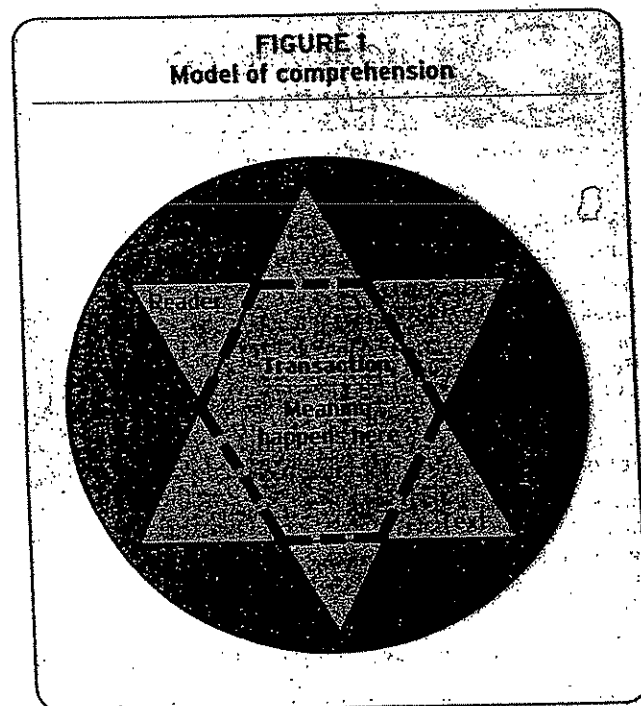
How comprehension works

Comprehension occurs in the transaction between the reader and the text (Kucer, 2001; Rosenblatt, 1978). The reader brings many things

to the literacy event, the text has certain features, and yet meaning emerges only from the engagement of that reader with that text at that particular moment in time. Figure 1 below presents a visual model of this process. Each of the elements in the model (reader, text, context, and transaction) is described in more detail later in this article, along with specific suggestions for how teachers can interact with the model to help children become strong comprehenders, beginning in kindergarten.

The reader

Any literacy event is made up of a reader engaging with some form of text. Each reader is unique in that he or she possesses certain traits or



Some research indicates that reading aloud to students is the single most effective way to increase comprehension (see Morrow & Gambrell, 2000, for a review of this literature).

Build and activate prior knowledge. Background knowledge is an important factor for creating meaning, and teachers should help students activate prior knowledge before reading so that information connected with concepts or topics in the text is more easily accessible during reading (Keene & Zimmermann, 1997; Miller, 2002). If students do not have adequate background knowledge, teachers can help students build the appropriate knowledge. Duke (2003) suggested that one way to add to world knowledge is to use informational books with all students, particularly very young students. By using information books, students build world knowledge so that they will have the appropriate information to activate at a later time. Teachers also support students' acquisition of world knowledge by establishing and maintaining a rich, literate environment, full of texts that provide students with numerous opportunities to learn content in a wide variety of topics.

Another way teachers help students build background knowledge is to create visual or graphic organizers that help students to see not only new concepts but also how previously known concepts are related and connected to the new ones (Keene & Zimmermann, 1997; Miller, 2002). Teachers teach students how to make text-to-text, text-to-self, and text-to-world connections so that readers can more easily comprehend the texts they read.

Reading aloud and teacher modeling show students how to activate schema and make connections. For example, a first-grade teacher read aloud from *Ira Says Goodbye* (Waber, 1991). She began the lesson by thinking aloud about the title and cover of the book. "Oh I see that the author is Bernard Waber and the title is *Ira Says Goodbye*. I think this book is about the same Ira as in *Ira Sleeps Over* (Waber, 1973). I can activate my schema from that book. I am making a text-to-text connection. I remember that..." She continued modeling for her students how to activate schema and make connections that helped her make meaning from this text. As she read the book to her students, she stopped occasionally to model and think aloud how she activated her own schema to make connections.

Teach vocabulary words. If there are too many words that a reader does not know, he or she will have to spend too much mental energy figuring out the unknown word(s) and will not be able to understand the passage as a whole. Teachers help students learn important vocabulary words prior to reading difficult or unfamiliar texts. When teaching vocabulary words, teachers make sure that the selected words are necessary for making meaning with the text students will be reading and that they help students connect the new words to something they already know. Simply using the word lists supplied in textbooks does not necessarily accomplish this task (Blachowicz & Fisher, 2000). Many teachers consider the backgrounds and knowledge levels of their students and the text the students will be engaging in and then select a small number of words or ideas that are important for understanding the text. Once teachers have decided on the appropriate vocabulary words to use, students must actively engage with the words—use them in written and spoken language—in order for the words to become a part of the students' reading and writing vocabularies. For example, asking students to create graphic organizers that show relationships among new words and common and known words helps them assimilate new vocabulary. Asking students to look up long lists of unrelated, unknown words is unlikely to help students access the text more appropriately or to increase personal vocabularies.

Motivate students. Many individual reader factors (e.g., cognitive development, culture) are not within a teacher's control. However, teachers can motivate students by providing them with interesting texts, allowing them choices in reading and writing, and helping students set authentic purposes for reading (e.g., generating reports, writing letters, demonstrating some new ability or skill; Pressley & Hilden, 2002). Many teachers actively seek out students' interests so that they can select texts, topics, themes, and units that will more likely engage students. Teachers also provide and promote authentic purposes for engaging in reading and writing. Authentic literacy events are those that replicate or reflect reading and writing purposes and texts that occur in the world outside of schools. Some teachers do this by providing pen pals, using students' authentic questions for in-depth study,

adhere strictly to one structure, but might be a combination of several structures. Many textbooks have a varied and mixed set of structures, and teachers can address specific features and demands of informational text so that students are more likely to engage in informational text with a repertoire of strategies and schema to help them construct meaning (Duke, 2003).

Model appropriate text selection. Teachers teach students how to select appropriate texts by showing them what features to consider. Some teachers use the Goldilocks approach (Tompkins, 2003), while others suggest that teachers level books and tell students which level books they may select (Fountas & Pinnell, 1996). In the Goldilocks approach, readers look for books that are not too hard or too easy, but just right. Just-right books are those that look interesting, have mostly decodable words, have been read aloud previously, are written by a familiar author, or will be read with a support person nearby (Tompkins, 2003). Teachers have a wide variety of genres and levels of books available for students to select for independent reading, and they support students throughout the year with appropriate book selection.

Provide regular independent reading time. Teachers can make sure they provide students with time to read independently every day. Reading becomes better with practice, and comprehending becomes better with more reading practice (Pressley, 2003). Many teachers use programs such as DEAR (Drop Everything And Read) or SSR (Sustained Silent Reading) to ensure that students read independently every day.

Teachers create and support a sociocultural context

Reading takes place somewhere between a specific reader and a specific text. A sociocultural influence likely permeates any reading activity (Kucer, 2001; Schallert & Martin, 2003). Depending on the place, the situation, and the purpose for reading, the reader and the text interact in ways that are unique for that specific context. The same reading at another time or in a different place might result in a different meaning. The context

also involves the activity that occurs around the transaction. If a teacher assigns his or her students to read a certain text for a specific reason, the transaction that occurs will be based on this context. If students are asked to discuss a text, generate questions from it, or come up with a big idea, these kinds of activities form a context within which the reader and text interact for a specific reason, one that is unlikely to occur in exactly the same manner ever again. Teachers create contexts and learning opportunities that will support the construction of meaning. Environments that value reading and writing, that contain a wide variety of texts, that allow students to take risks, and that find time for reading aloud and reading independently are contexts that effectively promote the construction of meaning (Keene & Zimmermann, 1997; Miller, 2002; Pardo, 2002).

The transaction

As we consider the reader's individual and unique differences, the characteristics of the context, and the features of the text, we are left to wonder exactly what happens when these three come together. At the most basic level microstructures (words, propositions) are being decoded and represented by mental images (Butcher & Kintsch, 2003). This is most likely happening quickly, automatically, and in short-term memory. These mental images are calling forth ideas and information stored in long-term memory to assist the reader in building a series of connections between representations (van den Broek, 1994). These connections occur between the reader and the text and between different parts of the text. This representation is fine-tuned by the reader as more information is encountered in the text and more connections are made. Readers exit the transaction maintaining a mental representation or gist of the text.

How do these connections lead to mental representations? One way is through making inferences. A reader is quite intentional as he or she engages with the text, asking, "What is it I'm looking at here?" Readers are searching for coherence and for a chain of related events that can lead them to infer or make meaning. As readers continue moving through the text, they continue to build inferences, drawing from long-term memory specific

There is very strong empirical, scientific evidence that the instruction of more than one strategy in a natural context leads to the acquisition and use of reading comprehension strategies and transfer to standardized comprehension tests. Multiple strategy instruction facilitates comprehension as evidenced by performance on tasks that involve memory, summarizing, and identification of main ideas. (Trabasso & Bouchard, 2002, p. 184)

Perhaps the most frequently used multiple strategies approach is transactional strategy instruction (TSI), created and studied by Pressley and colleagues (Brown, Pressley, Van Meter, & Schuder, 1996; Gaskins, Anderson, Pressley, Cunicelli, & Satlow, 1993). TSI teachers encourage readers to make sense of text by using strategies that allow them to make connections between text content and prior knowledge. Teachers and students work in small reading groups to collaboratively make meaning using several teacher-identified strategies. Teachers model and explain the strategies, coach students in their use, and help students use them flexibly. Throughout the instruction, students are taught to think about the usefulness of each strategy and to become metacognitive about their own reading processes.

Scaffold support. When teaching strategies to elementary-age students, teachers gradually release responsibility for comprehending to students. An effective model that has been used by some teachers is the Gradual Release of Responsibility model (Pearson & Gallagher, 1983). In this model, teachers take all the responsibility for applying a newly introduced strategy by modeling, thinking aloud, demonstrating, and creating meaning. As time passes and students have more exposure to and practice with using the strategy, teachers scaffold students by creating activities within students' Zone of Proximal Development (Vygotsky, 1978) and slowly withdrawing more and more responsibility. Teachers work collaboratively with the students and the strategy, giving and taking as much as necessary to create meaning. Eventually, students take on more and more responsibility as they become more confident, knowledgeable, and capable. Finally, students are able to work independently. Teachers and students do not always progress in a linear way, but often slip back and forth between more and less responsibility depending on the task,

the text, and the strategy. While adaptations may be made with students of different ages, teachers use this model with students in all elementary grades.

Make reading/writing connections visible. Teachers help students see that reading and writing are parallel processes and that becoming good writers can help them become good readers (Kucer, 2001). Composing a text can be thought of as writing something that people will understand. Writing can bring understanding about a certain topic to the writer, who will have to be clear about the topic he or she is writing about. Meaning matters in comprehending, and becoming a clear writer is all about how the reader will make meaning of the text that is being created. Recalling the earlier discussion of authentic purposes is important here as well; students will likely become engaged with the task of writing if asked to write for authentic and important purposes.

Closing comments

Comprehending is a complicated process, as we have discovered and explored in this article. Yet it is one of the most important skills for students to develop if they are to become successful and productive adults. Comprehension instruction in schools, beginning in kindergarten, is therefore crucial. Teachers use their knowledge and understandings of how one learns to comprehend to inform classroom practices so they can most effectively help readers develop the abilities to comprehend text. It is hoped that the discussion in this article can open a dialogue with teachers and teacher educators toward this end.

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