

CHAPTER 3

WHAT ARE THE STRATEGIES ASSOCIATED WITH THE READING PROCESS?

As we have pointed out, reading is a recursive process. Reading strategies are used many times rapidly, in unison with one another. Therefore, most reading strategies are evident *before, during, and after* reading, although not necessarily with the same emphasis.

The following descriptions of each strategy give some indication of when in the reading process they are generally employed. Different texts and different contexts require readers to use different reading strategies at different times. However, as you review each of these strategies it will become obvious to you when a reading strategy is emphasized the most. For example, “synthesizing” is used *during and after* reading while “scanning” is typically used *before* close reading. Here, then, for your review are the major reading strategies associated with the process of reading.

Predicting

Predicting helps readers to activate their prior knowledge about a topic, beginning the process of combining what they know with new material in the text. Predictions are not merely wild guesses, they are based on clues within the text such as pictures, illustrations, subtitles, and plot. Clues for

predictions will also come from readers' prior knowledge about the author, text form, or content. Students should support why they make their predictions.

Readers can be encouraged to make personal predictions *before* and *during* reading. *During* reading, effective readers adjust and refine their earlier predictions as new information is gathered and new connections are made. They tend to rehearse what they have learned and move on with some expectations of what comes next (Graves & Graves, 2003; Slater & Hortsman, 2002).

Predictions are usually related to events, actions, or outcomes and will be either confirmed or rejected once the text has been read. Students can also use predicting to identify unknown words. Students can predict unknown words *before* or *after* decoding. These types of predictions usually are based on surrounding context clues, and on what would make the best sense within the text being read.

Significant research indicates that poor readers do not use their prior knowledge as effectively as good readers, particularly when comprehending expository text and activities that make explicit the connection between prior knowledge and the content of a text (Trabasso & Bouchard, 2002).

Connecting

Efficient readers comprehend text through making strong connections between their prior knowledge and the new information presented in text. Activating students' prior knowledge *before* reading is important. However, students need to be able to continue to use this strategy *during* reading to make continual connections as they read.

Keene and Zimmerman (1997) categorize the type of connections made by efficient readers:

- **Text-to-Self Connections**

Involves readers thinking about their life and connecting their own personal experiences to the information in the text.

- **Text-to-Text Connections**

Involves readers thinking about other texts written by the same author or with common themes, style, organization, structure, characters or content.

- **Text-to-World Connections**

Involves readers thinking about what they know about the world outside their personal experience, their family, or their community.

Effective readers limit their connections to those that enhance understanding of the text. Some students may make connections that have little relevance to text comprehension. Their conversations about the connections they make can help them focus on how connections may have assisted understanding.

Research suggests that weak readers are generally passive and do not attempt to connect ideas in the text to what they already know (Pressley and Wharton-McDonald, 1997). Successful readers, however, actively draw on their prior knowledge to connect to and within the text (van den Broek & Kremer, 2000).

Inferring

Efficient readers take information from a text and add their own ideas to make inferences. During the process of inferring, readers make predictions, draw conclusions, and make judgments to create a unique interpretation of a text. Making inferences allows students to move beyond the literal text and to make assumptions about what is not precisely stated in the text. Inferences made by students may be unresolved by the end of text, neither confirmed nor rejected by the author.

Efficient readers also can infer the meaning of unknown words using context clues, pictures, or diagrams.

In their review of the research, Sinatra, Brown, and Reynolds (2002) found that students' ability to make causal inferences is important for building a coherent understanding of text.

Synthesizing

When comprehending text, efficient readers use synthesizing to bring together information within a text. Synthesizing involves readers piecing information together, like putting together a jigsaw. As students read and use synthesizing, they stop at selected places within a text and think about what

has been read. This activity encourages them to keep track of what is happening in the text.

Students who are consciously aware of using this strategy are able to monitor continually their understanding of text. During the process of synthesizing, students may be connecting, inferring, determining importance, posing questions, and creating images.

Brown and Day (1983) found that effective readers synthesize to enhance their comprehension of what they have read. Zwiars (2004) notes that learning how to synthesize benefits students because it leads them to new perspectives and insights.

Visualizing

Efficient readers use all five senses to create images continually as they read text. The created images are based on their prior knowledge. Sensory images created by readers help them to draw conclusions, make predictions, interpret information, remember details, and assist with overall comprehension. Images may be visual, auditory, olfactory, kinaesthetic, or emotional.

Students may need extra encouragement to create images with greater detail or to create those that go beyond the literal information from the text. Support also can be provided to help students revise their images when new information is gained.

It is important that students also are given the opportunity to share their images and to talk about how creating images helps them better understand text. Images can be shared orally, as drawings, as jottings, or through drama.

In their comprehensive summary of research on imagery, Gambrell and Koskinen (2002) concluded that the teaching of imagery has a positive effect on students' ability to comprehend and remember what they read. Nokes and Dole (2004) believe visual imagery is an important strategy to teach struggling adolescent readers.

Self-Questioning

Self-questioning is the strategy effective readers use to draw on existing knowledge, to investigate a text as it is read, to analyse the beliefs and motives behind the author's surface meaning, and to monitor comprehension. Whether posed in-head, sub-vocalised or noted in writing, self-questioning is critical to maintaining connections between existing and new knowledge. Self-formulated questions provide a framework for active reading by directing the reader's attention to key information.

Efficient readers continually form questions in their minds *before, during, and after* reading to assist in comprehending text. Often these questions are formed spontaneously and naturally, with one question leading to the next. Questions may relate to the content, style, structure, important messages, events, actions, inferences, predictions, author's purpose, or may be an attempt to clarify meaning. Self-formulated questions provide a framework for active reading, engaging students in the text as they go in search of answers. It is important for students to be aware that answers to all questions may not always be in the text.

Helping students to become aware of questions they naturally ask is an important goal for teaching this strategy. Encouraging students to understand how the generation of questions helps to develop a deeper understanding of the text is also important.

Rosenshine, Meister, and Chapman (1996) note that many instructional studies demonstrate that students increase their reading performance after they receive instruction in self-questioning, and Cote and Goldman (1999) show that self-questioning is a strategy used by effective readers, but not by less effective readers. The National Reading Panel (2002) views question generation as a strategy that may be best used as part of a multiple strategy instruction program.

Skimming

Skimming is glancing through material to gain a general impression or overview of the content. It involves passing over much of the detail to get the gist of a text. Skimming is the most common strategy used by a reader to assess quickly whether a text is going to meet his or her purpose. Effective skimming lets a reader know in general terms how difficult a text is, how long it is, how it is structured, and where the most useful information can be found.

Effective skimming strategies are critical for adolescents due to the volume of electronic text they read. Websites, CD ROMs, and multimedia texts are designed for, and subject to rapid reading practices where the reader gets the gist from sub-headings and key points, determines difficulty and usefulness, and assesses the content flow.

Skimming is often used before reading to

- assess quickly whether a text is going to meet a purpose;
- determine what is to be read;
- determine what's important and what may not be relevant;
- review text organization;
- activate prior knowledge.

Students can be helped to use skimming by being encouraged to check any graphics, to check underlined, italicised, or highlighted text, or to read any titles and subheadings.

Block, Gambrell, and Pressley (2002) stress the prereading nature of skimming by referring to it as "filling the text." They argue that students can be taught to "fill the text" in the same way farmers fill the earth before they plant. Research by Block (2001) indicates that students who are taught to skim increase their comprehension of a text significantly over those students who do not.

Scanning

Scanning involves glancing through material to locate specific details such as names, dates, places, or some particular content. For instance, readers might scan a contents page or index to find the page number of a specific topic. They may scan a dictionary or telephone book in search of a particular word or name, or they may scan as they re-read a text to substantiate particular responses.

Like skimming, scanning is particularly important for comprehending selected parts of websites, CD ROMs, and multimedia texts. Readers may also scan a text looking for picture clues that may help them to identify any unknown words.

Determining Importance

Efficient readers constantly ask themselves what is most important or what the main idea is of what they are reading. They benefit from understanding how to determine the important information, particularly in informational texts. Factors such as purpose for reading, knowledge of topic, prior experiences, beliefs, and understanding of text organization help readers to identify important information in a text.

Students can begin to identify important concepts or ideas from short pieces of texts. Key words, phrases, and sentences can then be identified. It is beneficial to begin with informational texts and to highlight organizational features that will help students to decipher important information from less important information. These features include: headings, subheadings, titles, illustrations, bolded text, icons, and font size. Students also need opportunities to determine important information in literary texts.

Widespread studies in the 1980s show that successful readers determine importance of ideas by excluding less important information (Baumann, 1986; Tierney and Cunningham, 1984; Winograd and Bridge, 1986). More recently, Brown (2002) notes that the considerable research on the positive effects of teaching students to summarize text shows how critical it is for students to determine importance.

Summarizing/Paraphrasing

Linked closely to the strategy of determining importance, summarizing/paraphrasing is the process of identifying, recording, and writing the most important information from a text into your own words.

The ability to reduce a larger piece of text to its most important messages is done through summarizing. The re-statement of the text is referred to as paraphrasing.

Summarizing/paraphrasing involves using key words and phrases to capture the general gist of a text.

Studies (Wittrock, 1990; King, 1992, O'Donnell and Dansereau, 1992) show that when students are taught to summarize, their comprehension improves and they are able to monitor their understanding. After reviewing 18 studies on summarizing, Trabasso and Bouchard (2002) conclude that "Readers improve the quality of their summaries ...by identifying the main ideas ... generalizing and by removing redundancy" (p.182).

Re-reading

Efficient readers understand the benefits of re-reading whole texts or parts of texts to clarify or enhance meaning. Reading or hearing a text more than once benefits all readers, allowing them to gain a deeper understanding of the text.

Re-reading can also be used as a word-identification strategy. Efficient readers sometimes re-read to work out the meaning of difficult words using context clues. The opportunity to re-read a text also helps to improve fluency.

The National Reading Panel (2000) reviewed the research literature relating to repeated reading and found that re-reading improves fluency, particularly for high school students experiencing reading difficulties.

Reading On

When students cannot decode an unfamiliar word within a text, they can make use of the "Reading On" strategy. Skipping the unfamiliar word and reading on to the end of the sentence or the next two or three sentences often provides the reader with sufficient context clues to help determine the unknown word. Once the unknown word has been determined it is important for students to re-read that section of text.

"Reading On" also refers to continuing to read in an attempt to clarify meaning that may have been lost.

The research (Trabasso and Bouchard, 2002) on comprehension monitoring, knowing what to do when text does not makes sense, supports the use of the "Reading On" strategy.

Adjusting Reading Rate

It is important that students give themselves permission to adjust their reading rate and to recognize when this may be necessary. The purpose for reading will often dictate the most appropriate rate. Readers may **slow down** to understand new information, to clarify meaning, to create sensory images, or to ask questions. Readers may also **speed up** when scanning for key words or skimming to get an overall impression of a text.

When readers lose meaning, they need to 'fix-up' their misunderstandings. One way they can do this is to adjust their reading rate, which usually means to slow down. Like the "Read On" strategy, adjusting reading rate is a strategy supported by comprehension monitoring research (Trabasso and Bouchard, 2002).

Sounding Out

When adolescents meet new and unfamiliar words, they will use their knowledge of letter/sound relationships to identify them.

Research has shown that an understanding of letter/sound relationships is positively related to reading ability (NRP, 2000), including students in the secondary school (Ryder and Graves, 1980).

Chunking

As readers encounter greater numbers of multi-syllabic words, it is important to encourage students to break words into units larger than individual phonemes or single sounds (/b/). Readers might chunk words by pronouncing word parts such as onset and rime (spr-ing), letter combinations (ough), syllables, or parts of the word known as morphemes which carry meaning (ed, ing).

There is evidence to suggest that when students use common letter patterns or parts of words to decode, their word recognition is more efficient (Ehri, 1991).

Using Analogy

When readers manipulate or think about words they know in order to identify unknown words, they are using analogy. They transfer what they know about

familiar words to help them identify unfamiliar words. When using analogy, students will transfer their knowledge of common letter sequences, onset and rimes, base words, word parts that carry meaning, or whole words.

Several studies have concluded that reading instruction should include reading by analogy (Leslie and Calhoun, 1995; Greaney, Tunmer and Chapman, 1997).

Consulting a Reference

The use of word-identification strategies such as “sounding out” or “chunking” may unlock both the pronunciation and meaning of words. However, if the word is not in a student’s meaning vocabulary, the reader may not be able to understand the meaning of the word. Consulting a reference is an additional strategy that supports students to unlock word meaning. Being taught how to use a dictionary, thesaurus, reference chart, or glossary will help students locate the meanings, pronunciations, or derivations of unfamiliar words.

The Strategies and Technology

As we discussed strategies in this chapter, our examples came exclusively from traditional textbooks that permeate secondary classrooms. However, schools are increasingly integrating technology with their textbooks, and adolescents spend many hours outside of school with technologies such as text-messaging, email, websites, and CD ROMs which are not as linear as traditional texts. For example, adolescents may have several text boxes open, comparing and relating information from each. They may be scrolling and scanning subheadings to find a particular detail. Or they may be retracing a line of thinking through hyperlinked sources or sites. These technological texts call for adolescents to call on reading strategies like skimming and scanning, predicting, determining importance, and re-reading. Adolescents, then, must apply strategies flexibly.

The explosion in information that accompanies these technologies casts the spotlight on adolescent readers’ ability to be aware of the context of a text, to be aware of the author’s purpose, who the author is, and how the text and the reader are being positioned. For example, an email purporting to be from a government body may be bogus, and a website supplying supposedly objective information may be maintained by a commercial entity with a hidden agenda. An adolescent’s capacity to self-question during reading is fundamental to the skill of reading critically. Middle and secondary school teachers can assist adolescent readers by making explicit the reading strategies that are being

What are the Strategies Associated with the Reading Process?

maximised when, for example, a reader follows a hyperlink to another website, or compares a range of print and non-print texts.

Now that you are familiar with the reading strategies associated with the reading process, let's look at some activities that you can use to integrate the teaching of these strategies with the teaching of your content.