Assessing Reading Comprehension

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Generally, experts agree on what good readers do to comprehend text—they connect new text with past experiences, interpret, evaluate, synthesize, and consider alternative interpretations. Yet, traditional measures of reading comprehension only provide a general indicator of how well a student understands text. They do not provide information about how the student uses cognitive and metacognitive processes or explain why a student may be struggling. This article discusses various traditional and innovative reading comprehension assessment measures, including standardized norm-referenced tests, informal reading inventories, interviews and questionnaires, anecdotal records and observations, oral retelling, freewriting, and think-aloud procedures. For each technique relative strengths and weaknesses are described.

Generally, experts agree on what good readers do to comprehend text—they connect new text with past experiences, interpret, evaluate, synthesize, and consider alternative interpretations (Pressley & Afflerbach, 1995). Further, researchers such as Rosenblatt (1983) have emphasized the personal nature of the reader's response to text.

Despite views of reading as an interactive, reflective process, reading comprehension measures still tend to focus on recall as the primary indicator of a student's understanding (Applegate, Quinn, & Applegate, 2002). Traditional measures of reading comprehension only provide a general indication of how well a student understands text, failing to provide information about how the student uses cognitive and metacognitive processes or sufficiently explain *why* a student may be struggling. Instead, comprehension is generally measured by a cloze task (students fill in blanks where words have been omitted), multiple-choice, or short-answer questions (Irwin, 1991). None of these are natural reading tasks and do not accurately reflect what we know about the reading process. Nor do they help us detect and diagnose specific comprehension problems. Innovative procedures that evaluate aspects of comprehension not assessed by standardized instruments are needed (Kamhi, 1997).

Metacognition, or the awareness and monitoring of one's comprehension processes, is a critically important aspect of skilled reading (Baker, 2002; Flavell, 1979; Mokhtari & Reichard, 2002; Pressley, 2000). Metacognition includes how the reader plans, monitors, evaluates, and uses all available information while attempting to make sense of text. Unskilled readers tend to be limited in their ability to apply metacognitive strategies (Paris & Winograd, 1990). One of the greatest challenges of reading comprehension assessment is to accurately determine students' metacognitive abilities because these processes cannot be measured through traditional means. Alternative procedures try to uncover this essential component of comprehension.

This article discusses various traditional and innovative reading comprehension assessment measures. Possible measures include standardized norm-referenced tests, informal reading inventories, interviews and questionnaires, anecdotal records and observations, oral retelling, freewriting, and think-aloud procedures. Each technique has its relative strengths and weaknesses.

Regardless of the method used, when

assessing comprehension it is important that the material students are asked to read is at their instructional level (rather than frustration level) and that they can read the passage with adequate fluency. If the student cannot read at least 95% of the words, comprehension will be hampered (Gunning, 2002). Similarly, if the student is a slow, laborious reader (though accurate), comprehension will suffer.

Norm-Referenced Tests

Traditional group-administered tests such as the Gates-MacGinitie Reading Comprehension Test, the California Achievement Test, the Metropolitan Achievement Test, the Iowa Test of Basic Skills, the GRADE, or the Stanford Achievement Test provide an overall measure of reading comprehension and an indicator of how a student compares with her age-level and grade-level peers. On these measures students read brief narrative and expository passages and then answer comprehension questions about each passage. Questions about narrative passages generally focus on the setting, characters, sequence, and plot of a story. Those about expository text typically ask about the main idea and supporting details. Questions are text-based, and although some require drawing inferences, many rely on straight recall. The extent to which readers can identify and recall this predetermined information determines the point at which they are placed on a continuum ranging from novice to expert reader (Bintz, 2000). Norm-referenced tests can be used with large groups and have the advantage of being relatively easy to administer and score.

These tests have been criticized for being unlike real-life reading tasks and too focused on lower-level comprehension processes. Guessing is also a factor because questions are typically presented in multiple-choice format. In recent years changes have been taking place in an effort to improve standardized tests. For example, the National Assessment of Education Progress (NAEP), the Stanford Achievement Tests (SAT-9), and numerous statewide assessments are gradually shifting from objective to more open-ended responses (Sarroub & Pearson, 1998) in an effort to better measure students' ability to *think* about a passage and to explain their thinking.

Despite progress, Bintz (2000) argues that these improvements do not go far enough. He notes that reading comprehension is still considered to be the reader's ability to "hear" an author's voice, or to understand and recall the author's intended meaning of text. These criteria, he contends, are constraining because they focus on what readers *should* be comprehending rather than what and how they *are* comprehending. We need to be able to hear readers' voices as well. It is how the reader interacts with the text that ultimately affects understanding, and traditional assessment methods stop short of assessing this. Reading comprehension *starts* (rather than ends) with an understanding of what the author intends to convey. To truly assess what a reader comprehends, we must be able to access the thinking processes that continue after this initial understanding takes place. These processes include establishing a voice, taking perspectives, extending, analyzing, questioning, taking a stance, shifting interpretive stances, rethinking about the self as a reader, reflecting, and thinking critically (e.g., about disconnects and anomalies). Bintz recommends using alternative procedures to get at these key processes.

Informal Reading Inventories

Informal reading inventories (IRIs) provide a framework for observing students' reading behaviors. These individually administered tests yield information about a student's reading level as well as word analysis skills, comprehension strategies, background knowledge, and interests. The test administrator

keeps a running record while the student reads different passages aloud and then asks comprehension questions. Although originally developed by teachers, many IRIs are now commercially produced. IRIs are time-consuming to administer, but potentially yield in-depth information about a student's literacy skills. As detailed below, Applegate et al. (2002) and Dewitz and Dewitz (2003) recently conducted relevant research studies about the potential of IRIs to measure students' comprehension processing.

Applegate and colleagues (2002) examined the types of open-ended questions and the levels of thinking required in commercial IRIs. More than 91% of all questions on the IRIs they analyzed required only pure recall or low-level inferences rather than higher-level thinking. Thus, nearly two-thirds of the items were considered to be purely literal. The authors concluded that IRIs are overwhelmingly text based, emphasizing the reader's ability to reproduce ideas rather than integrate and reconstruct them with his or her own knowledge, and may not be the best tools for assessing higher level thinking skills. They further noted that open-ended questions have the potential to provide much more information than multiple-choice questions about a student's comprehension processes, and the current emphasis on low-level questions is a "missed opportunity." In summing up Applegate et al. note comprehension measures need to do a better job distinguishing between readers "who can remember text and those who can think about it" (p. 178). As a result, they recommend choosing IRIs that include more items designed to assess higher-level thinking and encouraging publishers to develop IRIs that include more of these questions.

Dewitz and Dewitz (2003) described their administration of the Qualitative Reading Inventory 3 (QRI-3), an IRI, as a diagnostic tool for determining students' relative comprehension strengths and weaknesses. To do so, they deviated from the guidelines provided by the QRI-3. They categorized students' responses, trying to determine why students answered as they did, noting how students answered questions, what information they seemed to draw upon, and what types of inferences they could and could not make. Dewitz and Dewitz concluded that "we can improve our understanding of students' comprehension difficulties using available tools like the QRI-3 or other informal reading inventories" by delving "into the thinking, or lack thereof, underlying the difficulties that students have in reading comprehension" (p. 434). They recommended that teachers use IRIs in this way to gather information they can then use to tailor instruction to meet students' needs.

Interviews and Questionnaires

Interviews and questionnaires are designed to elicit students' views of the reading process and their knowledge of reading strategies (Garner, 1992). They can be useful assessment tools that promote learner awareness of the underlying processes involved in reading. Interviews are conducted individually or in small groups, whereas questionnaires can be group-administered. Unlike the prompted think-aloud procedure (described in a subsequent section), they generally are not linked with a specific reading passage.

Gunning (2002) provides a list of possible interview questions and follow-up probes. He suggests that not all of these questions be asked in one sitting, but that they be used flexibly, interspersed a few at a time in pre- and post-reading discussions.

— What do you do before you start reading?
- Do you read the title and headings?
- Do you look at the pictures?
- Do you predict what the passage might be about?
- Do you ask yourself what you already know about the topic?

— What do you do while you're reading?
- Do you think about what you're reading?

- Do you stop sometimes and ask yourself what you've read about so far?
- Do you picture in your mind the people, places, and events you're reading about?
- Do you imagine that you're talking with the author while you're reading?

— What do you do when you come to a word you don't understand?

- Do you look for clues and try to figure it out?
- Do you use a glossary or dictionary?

— When you come to a part of the text that is confusing, what do you do?

- Do you read it again?
- Do you just keep reading?
- Do you try to get help from pictures or drawings?

— After you finish reading, what do you do?

- Do you think about what you've read?
- Do you do something with the information you've learned?
- Do you compare what you've just read with what you already knew?

Questionnaires can also be useful for gathering information about students' strategic processing. Because they can be group-administered, they provide a time-efficient means of data collection. For example, Mokhtari and Reichard (2002) developed a self-report instrument, the Metacognitive Awareness of Reading Strategies Inventory (MARSI), to assess adolescent and adult readers' metacognitive awareness and perceived use of strategies while reading academic materials. The MARSI is a written questionnaire that can be administered individually as well as to groups of students. The average administration time is 10-12 minutes. It is not intended to be used as a comprehensive measure of students' comprehension monitoring abilities, but as one tool that supplements other measures. It provides teachers with a practical means for monitoring the type and number of reading strategies students use, and can help them assess the impact of reading comprehension strategy instruction. It helps students increase their awareness of their own reading strategies. The authors caution that because it is a self-report measure, one cannot know for certain if students actually engage in the strategies they report using.

Observations

Observations have an advantage over verbal reports in that they provide the observer with evidence of what children actually do rather than what they say they do (Baker, 2002). Students might be observed during independent reading time or while they are engaged in small-group, peer or cross-age tutoring, or cooperative learning activities. For example, listening to how a tutor describes strategy implementation to another student can provide useful information regarding what the student knows and can do (Klingner & Vaughn, 1996).

There are various ways to conduct and record observations. One way is to use an observation checklist, noting which reading behaviors are observed and which are not. Another way is to keep anecdotal records (Gunning, 2002). In addition to information about a student's reading comprehension, an anecdotal record includes information about the time, date, setting, and names of those involved. An anecdotal record can be quite brief. To use anecdotal records effectively, they should be reviewed periodically as a way to keep track of students' areas of need as well as improvements over time.

Irwin (1991) suggests using "ethnographic notetaking" when the goal is to focus on a specific student. This involves taking repeated and detailed notes for an extended period of time (Smith, 1988), or, as Irwin notes, writing "as much as possible as often as possible" (p. 196). Klingner, Sturges, and Harry (2003) provide a detailed explanation of how to use ethnographic techniques when conducting reading observations.

One limitation of observation methods is

that they can be time-consuming. Further, it can be difficult to determine what is causing a child to behave in a certain way. It is important to exercise caution when interpreting observation notes and to recognize that there can be many alternative explanations for a child's actions. For example, a child who is unable to answer comprehension questions in class and who seems to remember little might simply be shy or intimidated when speaking in front of others. A student who remembers only details may do so because she thought that was what was required of the task. Similarly, a child who has difficulty answering questions may have a limited vocabulary or be learning English as a second language, but not have a processing problem per se.

Retelling

One promising practice for monitoring reading comprehension is the use of oral retelling. Retelling provides an alternative to traditional questioning techniques for evaluating students' reading comprehension by involving the integration of many skills that are part of the comprehension process. Retelling a story requires a student to sequence and reconstruct events and major concepts presented in text (Hansen, 1978). Furthermore, retelling evaluates a student's ability to rely on memory for factual details and to relate them in some organized meaningful pattern. Additionally, students must be able to generate inferences to compensate for information they are unable to recall in order to reconstruct a passage meaningfully.

An advantage to retelling is that the teacher is able to learn a great deal about what the student understands. Such information can be used to ascertain additional comprehension skills that need to be taught. Other related variables such as the student's interest in the story are also determined. A disadvantage is that a retelling must be conducted individually and is time-consuming to administer and score. Another limitation is that students who have difficulties with expressive language may not be able to convey adequately what they understand.

Retelling procedures. To use retelling, the examiner first selects a passage that is at the student's instructional level. The passage can be fictitious (as in a narrative story) or informational. Next the examiner asks the student to read a passage. The passage can be read only silently (older students), silently followed by orally (students who are struggling readers), or only orally (younger students). After the student has finished reading, the examiner asks the student to retell the passage. The specific directions vary depending upon what type of passage has been read. A narrative retelling would most likely be structured according to the elements of a story: setting, characters, plot, goal, story problem, and theme. The examiner asks the student to "pretend I have never heard this story and tell me everything that happened" or to "start at the beginning and tell me the story" (Lipson, Mosenthal, & Mekkelsen, 1999). With an informational piece, the reader is asked to "tell me in your own words as much information as you can remember from the selection you just read," or more simply "tell me what you learned from the selection" (Gunning, 2002). If the student does not provide sufficient information, the examiner might probe by asking, "Can you tell me anything more?" During this process, the examiner notes the quality and organization of the retelling and whether critical features are present. For example, does the student restate the main idea of the passage or provide a summary? Are most or all of the major points included? Does the student seem to have an adequate understanding of the information? Does the student make connections between what was read and personal experiences or information previously learned?

During the retelling, the examiner should also observe the student's actions, first noting if he does anything with the text before reading (e.g., looks at the entire selection to get

an overview, seems to read the title, subheadings) or seems to dive right in. During reading, it is also valuable to note whether the student looks at a glossary or illustrations, or seems to reread portions of text.

Story retells can also be analyzed using a point system. Each story can be examined in terms of specified story features (e.g., characters, setting, plot) using a 4-point Likert-type scale for each story feature. One point is provided for accurate but incomplete information. For instance, in a story retell about a frog and a toad, students who merely mentioned that the story was about a frog or a toad would receive one point for the "characters" story feature. Two points would be given for more accurate and complete information, and three points would be awarded if at least one character was described (e.g., the frog in the story was very smart and clever). The full four points would be awarded if both characters were described with some detail.

As an alternative to oral retellings, students can be asked to write their retellings. While this is not a suitable option with young children or older children who lack sufficient writing skills, it can be a viable substitute with older, more proficient students. In this way many students can be asked to write their retellings at the same time.

Paris and Paris (2003) created a version of the retelling procedure for younger students. Students "read" and retell wordless picture books rather than printed text. This measure, called the Narrative Comprehension of Picture Books task, is appropriate for students from the ages of five to eight. It has the advantage of being useful with young students whether or not they can decode print. Another strength of the measure is its flexibility—it can be adapted to many narrative picture books. The authors found significant correlations between the retelling on their measure and the QRI-II retelling, providing support for the validity of eliciting retellings from picture narratives. They provide compelling evidence that children's understanding of narrative is an important foundation for learning to read.

Freewriting

Freewriting is similar to written retelling in that both involve written responses to text (Bintz, 2000). However, it is different in that freewriting is "automatic," unrestricted writing. The student writes quickly, without stopping or editing for quality or correctness, for a specified amount of time. This approach has typically been used to help students develop writing fluency, get past writer's block, or overcome the tendency to immediately edit mistakes. Bintz used the technique to assess reading comprehension among 22 graduate students, who were asked to freewrite after reading a chapter from a professional publication. After categorizing their responses, Bintz found evidence that participants were using sophisticated strategies to process the text and extend their understanding. He concluded that the freewriting procedure shows promise as a way to "hear readers' voices."

Think-Alouds

With the think-aloud procedure the students are asked to voice their thoughts periodically while reading. This process can provide useful insights into students' metacognitive and cognitive processing strategies (Irwin, 1991; Kucan & Beck, 1997; Laing & Kamhi, 1997; Ward & Traweek, 1993), students' word learning strategies (Harmon, 2000), and the text features they consider interesting and uninteresting (Wade, Buxton, & Kelly, 1999). These are all processes that have been difficult to assess with other tests or procedures. Ward and Traweek describe the think-aloud procedure as a useful tool for the dynamic assessment of reading problems by school psychologists that can also provide a basis for consultation with classroom teachers. By being involved in the think-aloud process, students become more aware of the mental processes they use while reading and

can improve their reading comprehension (Oster, 2001).

Think-aloud procedures. Think-alouds are conducted with students individually. As with other approaches to assessment, the examiner first selects a passage that is at a student's instructional level. The passage should be readable but not too easy for the student because some cognitive and metacognitive processes are only activated when a text includes challenging components. The examiner then asks the student questions before, during, and after reading, such as (Gunning, 2002):

- *Before reading* (the entire selection): What do you think this selection might be about? What makes you think so?
- *During reading* (after reading each marked-off segment): What was going on in your mind as you read this section? What were you thinking about? Were there any parts that were hard to understand? What did you do when you came to parts that were hard to understand? Were there any hard words? What did you do when you came across hard words?
- *After reading* (the entire selection): Tell me in your own words what this selection was about.

It is important to model this process first, as it is initially difficult for many students. As the student "thinks aloud," the examiner records his responses word for word. The examiner then analyzes the student's responses and notes his use of strategies and whether he does any of the following:

- Makes predictions prior to reading
- Revises predictions while reading based on new information
- Considers (thinks about) information read previously
- Makes inferences
- Draws conclusions
- Makes judgments
- Visualizes or creates mental images
- Paraphrases
- Summarizes
- Constructs questions
- Reasons about what was read
- Monitors understanding
- Uses context to figure out difficult words
- Rereads difficult sections
- Uses illustrations to help with comprehension

Finally, the examiner draws conclusions about the extent to which the student seemed to use the strategies effectively to monitor understanding and develops recommendations for future instruction.

The think-aloud procedure has proven useful for uncovering inefficient or ineffective processing. For example, Monti and Cicchetti (1996) found that struggling readers tended to (a) focus on decoding and pronunciation rather than comprehension, (b) rarely activate background knowledge, (c) not monitor their comprehension, and (d) rarely raise questions about meaning while reading. These are all areas that can be targeted for instruction and have been shown to improve when students are provided with strategy instruction (Palincsar & Brown, 1984; Klingner, Vaughn, Argüelles, Hughes, & Ahwee, in press). For example, Klingner et al. combined a prompted think-aloud procedure with follow-up interview questions and administered the measure to students with learning disabilities in an investigation of reading comprehension strategy instruction. The purpose of the measure was to capture whether and how students applied the comprehension strategies they had learned on a transfer task. Thus, questions and prompts were intentionally vague so as not to cue students to describe particular strategies. Results indicated that students had internalized some of the strategies they had been taught (see the Appendix of a version of this measure).

Despite its many advantages, there are several possible limitations to the think-aloud approach, including (Baker, 2002):

1. The think-aloud procedure may disrupt the process of reading itself.

2. The student may not be aware of the cognitive processes he is using.
3. The student may be unable to articulate the processes she is using.
4. Personal characteristics, such as age, motivation, anxiety, and verbal ability, can inhibit responses.
5. The instructions, questions, or probes asked can cue students to provide certain responses.
6. Students may only reveal the use of cognitive and metacognitive strategies when the text is sufficiently difficult.
7. Think-aloud protocols can be time-consuming and difficult to score.

To some extent, these limitations can be overcome, however. For instance, practice with thinking aloud can help students learn to become more aware of and able to voice the processes they are using.

Whitney and Budd (1996) argued that, despite its weaknesses, the think-aloud procedure is useful for tracking changes in students' processing abilities. Noting that working memory plays a central role in reading comprehension, they assert that the think-aloud procedure is well suited for revealing the contents of students' working memory during reading. However, new approaches to protocol analysis are needed to better uncover aspects of working memory. In addition, research is needed to establish the correlations between think-alouds and other comprehension measures. Whitney and Budd concluded that the think-aloud procedure is best used in combination with other approaches.

Conclusion

Comprehension should be assessed frequently, over time, as a way to track students' growth and provide useful information that can guide instructional decision-making. We have the means to improve our understanding of students' comprehension difficulties. Yet, no one test or procedure should be used alone. Clearly, the best way to assess reading comprehension is to use a combination of different measures. Standardized tests, informal reading inventories, interviews and questionnaires, observations, retelling, freewriting, and think-aloud procedures can each contribute a unique perspective on students' strengths and areas of need. Through a combination of approaches we can learn much more than just whether students can read a passage and answer comprehension questions correctly. We can explore students' underlying thinking processes, uncovering information about strategies that are overused, misused, or unused. We can determine how students approach a reading task, how they apply background knowledge, what information they draw upon to answer questions, what inferences they derive, how they try to figure out challenging words or concepts, and what they do to help themselves remember what they have learned.

It is important for those administering different comprehension measures to be aware of just what each test is assessing, what can and cannot be learned, and what the limitations as well as strengths are of each. When used effectively, the assessment tools described here can provide psychologists, diagnosticians, teachers, and reading specialists with a comprehensive understanding of students' comprehension skills. Yet, perhaps their greatest promise is that they can help the students themselves, and particularly struggling readers, become more aware of the comprehension processes they are using. It is hoped that through such increased awareness students will become more active, strategic, responsive, and thoughtful readers.

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Appendix

Prompted Think-Aloud (Klingner et al., in press)

Directions:

(Say:) I am going to ask you to read a page from a magazine. While you are reading I'm going to ask you to tell me what you are thinking. You can tell me what you're thinking in either Spanish or English. **(Do:) Ask the student to say what he or she is thinking whenever you come across an asterisk in the text below or whenever the student pauses for 2 seconds or more. You may help the student read words, but do not explain what they mean. Also, after each response, probe for more information by asking, "Anything else?"**

Note: The student reads from the actual text, while you use the following:

*** When I give you this to read, what is the first thing you do?**

*** Anything else?**

*** What are you thinking about that?** (Note: Here you probe for more information in response to the first question; e.g., if a student says, "I look at the picture," you say, "What are you thinking about when you look at the picture?")

***Anything else?**

THE PENAN

An Endangered People Living in a Dying Rain Forest

The sun rises, waking the people who live in one of the world's oldest rain forests. Then the people hear the first sounds of the morning. But they don't wake to chirping birds and other natural sounds. They wake to the roar of chainsaws and the thud of falling trees.

*** What are you thinking?**

***Anything else?**

The people are the Penan. They live in an ancient rainforest on Borneo, an island near Asia. They live by gathering fruits, nuts and roots and by hunting. The Penan way of life, along with the rainforest, is being destroyed. "I just want to cry when I hear the bulldozers and saws," says Juwin Lihan, a Penan leader.

*** What are you thinking?**

*** Anything else?**

A Green Gold Rush

About 25 years ago, logging companies began cutting rainforest trees on Borneo. The loggers call the trees "green gold" because the trees are worth so much money. They cut the trees to make paper, chopsticks, and other products.

*** What are you thinking?**

*** Anything else?**

As a result of the logging, the land and rivers have become *<u>polluted.</u>*

*** What are you thinking about that word?**

*** Anything else?**

"Clear rivers have turned into the color of tea with milk," says environment expert Mary Asunta.
Government officials, however, say that logging has been good for the area. They point to the more than 100,000 new jobs created in the area by logging companies. The companies have constructed new roads and buildings.

*** What are you thinking?**

***Anything else?**

Bring Back the Forest
Many of the Penan people don't want the jobs and roads. They want their forest back.
"Before the forest was destroyed, life was easy," says Liman Abon, a Penan leader.
"If we wanted food, there were wild animals. If we wanted money, we'd make baskets. If we were sick, we would pick medicinal plants." Now, he says, that's all gone.

*** What are you thinking?**

***Anything else?**

*** You may stop reading now. What do you do to help yourself remember what you have read?**

***Anything else?**

*** What do you do to make sure you understand everything you have read?**

***Anything else?**

*** What do you do when you do not understand a word or an idea the first time you read it?** (Note: You only need to ask this question if the student does not spontaneously talk about words in response to the previous question.)

***Anything else?**

<u>Scoring Procedures:</u>
The grading of the Prompted Think-Aloud relies on a rubric. Students can earn a total of 6 points on the pre-reading questions. The areas in which students can earn points include brainstorming what they already know and predicting what they think they will learn. The student also earns points if he/she mentions any strategy from the four following areas: looking at headings or

sub-headings; looking at words that are italicized, bolded, or underlined; looking at pictures, tables, or graphs; and describing a strategy but not employing it.

For the "during reading" questions, students can earn 2 points for a good 'gist' or main idea statement, or 1 point for a retelling. Responses to the question asking students to define a word are scored with the following points: Zero points if the student gives a tangential answer (i.e., answer had nothing to do with the story or the word); 1 point if the student defines the word without making reference to the story; 2 points if the student defines the word while making reference to the story; 1 point if the student's response is a reaction to the word without making reference to the story; and 2 points if the student's response is a reaction to the word while making reference to the story.

Post-reading responses are scored on a different scale. Students can earn a maximum of 2 points for each post-reading question. They receive 2 points if they mention any one of the following strategies: Testing; summarizing; questioning; understanding; or making an outline. They earn only 1 point for the following responses: Asking a parent; looking in a dictionary; asking a classmate; or reading it again. All points are added to obtain a single score for each student with the maximum being 26 points.