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Grouping Strategies for English Learners

Proficiency Level	Suggested Grouping	When most appropriate
Beginning	Mixed with fluent English speakers	For hands-on, concrete activities that are not conceptually demanding
Early Intermediate	With one or more students from the same native language background (e.g., pairing two Vietnamese students together)	For conceptually demanding or abstract content, when students' English is not suficiently developed
	Preview-review: 1. <u>Preview:</u> Bilingual teacher, instructional assistant or peer tutor previews essential questions, concepts and vocabulary in native language with small group of students. 2. Lesson is conducted in English for the entire class, using SDAIE strategies. 3. <u>Review</u>: Bilingual teacher, instructional assistant or peer tutor reviews and checks for understanding in native language.	Preview-review helps English Learners access the core curriculum because it uses their own language to focus students on key points (preview) and check for understanding (review).
Intermediate	Mixed with native speakers	For hands-on, concrete activities
	With one or more students of the same native language background	For highly conceptually demanding or abstract material
Early Advanced **Advanced**	Mixed with native-English-speakers	For all activities (although native language materials, instructional assistants, or tutors can be used for reinforcement)

Appendix

The following instructional strategies are reprinted with permission from *Strategic Teaching and Learning: Standards-Based Instruction to Promote Content Literacy*, CDE, 2000. Each strategy is printed in it's original form in the Appendices and is utilized and referenced within the context of a grade level Strategic Science Teaching lesson.

Graphic Outlining

Guided Reading

KWL Plus

Learning Log

Question-Answer Relationships

Questioning The Author

Reciprocal Teaching

The Research Process

Analogy Graphic Organizer

Concept Wheel/Circle

LINK

Contextual Redefinition

Think Aloud

Graphic Outlining

Graphic outlining is a method of representing information from a text so that the organizational pattern of the text is highlighted. It helps students understand what they read by leading them to predict and organize information they encounter.

Goals

1. Guide the student's comprehension process by creating graphic representations of the text (e.g., clusters or concept maps, such as a flow chart).

2. Help students recognize and use the organizational patterns inherent in informational texts (e.g., description, sequence, comparison, cause and effect, problem-solution).

Teacher Preparation

1. Introduce to the students the five organizational patterns of informational text.

2. Identify a section of text that clearly follows one of the five organizational patterns.

Instructional Procedures

1. Have students survey the text passage by examining the title and headings, looking for clues to the organizational pattern used by the author.

2. Ask questions that focus on the differences between the different patterns. For instance, does the author describe a cause-and-effect relationship? Are two or more concepts being compared?

3. Guide students to make predictions about the text's basic structure. When they think they have begun to develop a relatively clear sense of the pattern being used, ask them to make a graphic representation of the pattern.

4. Direct students to check their graphic outline as they continue reading to see whether it picks up the important ideas in the text selection and shows the relationship among those ideas. Students should also be looking for ideas that are not yet represented in their outline. Add subtopics to the outline as needed.

5. Model the process for completing the graphic outlines, and provide students with samples of the various patterns.

6. Guide students through the process of using their outlines to write a summary of the selection.

Variations

Bubble map. The map may be useful for stimulating students' ideas about a given topic. When asked to describe a topic or idea studied, students jot down associated words and draw a bubble around words, clustering them in some kind of order. Students may use the map for a prewrite, generate ideas before writing in journals, or review for a test.

Double bubble map. The map may be used for drawing comparisons. Students note the qualities that are unique in the outer parts of two overlapping circles. Attributes common to both things are listed in the middle. This technique helps students to distinguish common qualities from unique qualities before writing about or discussing a topic.

Flow chart. The chart is useful for helping students organize a series of items or thoughts in a logical order. Students write major stages of the sequence in large rectangles and substages in smaller rectangles under the larger rectangles.

Cause-and-effect chart. The chart is an aid for students to learn cause-effect reasoning. In the center of a sheet of paper, write the topic (the focus of the lesson). On the left-hand side, write the apparent causes of the topic. On the right-hand side, write the apparent effects of the topic.

Supporting idea chart. The chart helps students become aware of the relationship between a whole thing (structure) and its parts. Write the idea on a single line to the left. On the next set of lines to the right, write the major parts of the idea. Finally, fill in the subparts on lines that branch off the major parts of the idea.

Relevant English–Language Arts Content Standards

Grade Four: Reading Comprehension

2.1   [Students] identify structural patterns found in informational text (e.g., compare and contrast, cause and effect, sequential or chronological order, proposition and support) to strengthen comprehension.

Grades Five Through Eight: Reading Comprehension

2.0   Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of text by using their knowledge of text structure, organization, and purpose.

Grade Six: Reading Comprehension

2.4   [Students] clarify an understanding of texts by creating outlines, logical notes, summaries, or reports.

Further Resources

Cook, Doris. *Strategic Learning in the Content Areas.* Madison: Wisconsin Department of Public Instruction, 1989.

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Reading Comprehension

Guided Reading

Guided reading is a technique to guide students to deeper levels of thought by considering aspects of the author's craft, the relevance of the information, or the meaning of the text. It is a flexible approach that needs to be carefully adjusted to the reading competencies of students. It should be used intuitively and spontaneously to help students read beyond the superficial level and to assume control for considering, evaluating, and assimilating what they read.

Goals

1. Help students know how to apply the cognitive strategies of predicting, sampling, and confirming text and to regain control when meaning is lost.

2. Make students aware of how they can use the strategies noted above to cope with more complex challenges in the content and structure of the text.

3. Stimulate readers to ask more questions of themselves or of the text.

Teacher Preparation

1. Identify texts that will yield complex challenges, such as math, science, social studies texts, and many of the books students choose to read for their own pleasure and study. Guided reading works best, however, when students are asked to read materials at their instructional reading level (see step 10 on page 49 for definitions of reading levels).

2. Think of key questions to ask before, during, and after guided reading that show students how to go beyond the superficial and how to assume control for considering, evaluating, and assimilating what they read.

Instructional Procedures

1. When introducing a reading, ask questions that require students to consider aspects of the author's craft, the relevance of the information or its meaning, such as the following:

   a. How do you think the author will treat this topic (or theme)?

   b. Think about what you already know about the topic. What extra information are you seeking?

   c. What other books have you read by the same author? What comments do you have about the author's writing style or choice of topic? Do you expect this book to follow the author's usual style?

   d. What other books have you read about a similar topic? How does this one differ? Does the blurb or cover give any clues about how this book treats the topic? What about the table of contents or chapter headings? Did you get any clues from your first skimming of the text?

   e. What genre is this? What do you know about works of this kind?

   f. What kind of a book do you expect from looking at the cover?

   g. The title (or subtitle or blurb) indicates that this work is *(writing form)* text. Think about the way you expect the ideas or information to be presented. What are some of the conventions you expect to find?

2. While the reading is in progress, pose questions to help students clarify, amend, and confirm their purpose for the reading and their expectations of the text. The questions may engender some discussion about different understandings or viewpoints, but this should not cause students to lose sight of the meaning or diminish their interest in the text. Have the students do the following:

   a. Read until a change occurs in the plot.

   b. Read to the end of the episode. How did the ending add to your understanding?

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Discussion about texts		
Collaborative learning		
Writing emphasis		
Graphic representation		
Student control of reading process		
Student ownership of strategy		

c. Read until _____. Is this how you expected the story line to unfold (or the information to be presented)?

d. How did the text confirm, add to, or change what you already know about _____?

3. After this first reading, encourage students with further questions or prompts to reread the text and show them how to read with a more specific or different purpose in mind. For example, prompt students as follows:

a. Read as though you were planning notes for an illustrator.

b. Which character do you think you know the best? Why? Read the text again to see what else you can find out about that character.

c. As you reread, consider which incident had the most impact on the story line.

d. As you reread, think about the techniques the author uses to create a mood or tension; portray characters; and set the scene and the pace without long explanations.

e. What do you think was the significance of _____?

f. Reread the introduction and survey the glossary. Consider how much information you were given before you began reading. How did this influence your purpose for reading or the way you read?

4. After the reading, offer additional questions to encourage deeper levels of thought. Some questions should encourage further discussion about different perspectives or views; others should provoke further thought or reflection.

5. During a guided reading lesson, your role is to act as a group member by taking the following actions:

a. Listen to the students' discussion to gain insight into how they perceive their world and themselves as both readers and users of language.

b. Judge the most appropriate moments to intervene.

c. Observe each student's contribution to the reading and to the discussion.

d. Provide students an opportunity to assist and guide each other so that you can gain more insight into each student's competencies as a reader and as a group member.

e. Involve students in responding to the contributions of their peers by highlighting either complementary or divergent points of view.

6. The focus should be on guiding students toward making informed decisions about the most appropriate paths to take through and beyond the text. When students seem unable to draw upon the appropriate resources within themselves or within the text, try to hint at some of the options and favor only one option above others when danger zones (being unable to maintain or regain meaning) are imminent.

Relevant English–Language Arts Content Standards

Grades One Through Twelve: Reading Comprehension

2.0   Students read and understand grade-level-appropriate material.

Grades One Through Four: Reading Comprehension

2.0   [Students] draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making predictions, comparing information from several sources).

Grade Six: Literary Response and Analysis

3.1   [Students] identify the forms of fiction and describe the major characteristics of each form.

Grade Seven: Reading Comprehension

2.1 [Students] understand and analyze the differences in structure and purpose between various categories of informational materials (e.g., textbooks, newspapers, instructional manuals, signs).

Further Resources

Mooney, Margaret. "Guided Reading Beyond the Primary Grades," *Teaching K–8* (September 1995), 75–77.

KWL Plus

KWL Plus is based on three principal components of KWL, a reading-thinking strategy that activates and builds on the student's prior knowledge and natural curiosity to learn more. KWL requires a reader to identify what is *known* about a particular subject *(K),* what the reader *wants* to know *(W),* and what is *learned* as a result of reading the text *(L).* KWL Plus adds mapping (see page 54) and summarization to the original KWL strategy; these two tasks incorporate the powerful tools of restructuring of text and rewriting to help students process information. After learning KWL Plus under teacher direction, students implement it on their own while receiving corrective feedback until they can complete the task independently.

Goals

1. Engage students in an active reading process that demonstrates that reading means asking questions and thinking about ideas while reading.
2. Enhance students' proficiency in setting purposes for reading, gleaning information from texts, organizing that information into graphic outlines, and writing summaries based on those graphic outlines.

Teacher Preparation

1. Select an informational passage or article appropriate to the grade level and reading ability of your students. Note manageable segments within the text.
2. Prepare copies of the KWL work sheet for the class, and write the KWL grid on an overhead transparency or chalkboard.

Instructional Procedures

1. After listing the main topic of the selection at the top of the KWL grid, activate background knowledge through brainstorming what students know about the topic. Students note on their KWL work sheets what they think they know about the topic under *K* (what is known). They create a column titled "Categories of Information We Expect to Use."
2. Guide students in categorizing the information they have generated and anticipate categories of information they may find in the article. By awaking students' expectation at the outset, KWL enhances awareness of content and how it may be structured. Model the categorization process by thinking aloud while identifying categories and combining and classifying information.
3. Guide students in generating questions they want answered as they read. These questions become the basis for *W* (what students want to learn). Questions may be developed from information gleaned in the preceding discussion and from thinking of the major categories of anticipated information. This process helps students to define independently their purpose(s) for reading.
4. After a manageable segment (one or two paragraphs for struggling readers), have students interrupt their reading and pause to monitor their comprehension by checking for answers to questions listed in column *W.* This should help students become aware of what they have learned and what they have not comprehended. As students read and encounter new information, additional questions can be added to the *W* column.
5. As they read, students should note new information in the *L* portion of the work sheet. This helps them select important information from each paragraph, and it provides a basis for future reference and review.
6. After reading, students discuss what they learned from the passage. Questions developed before and

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Writing emphasis
Graphic representation
Student control of reading process
Student ownership of strategy

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during the reading should be reviewed to determine how they were resolved. If some questions have not been answered, students can be guided to seek further information in appropriate materials.

7. To produce a map or graphic outline of the text, students categorize the information listed under *L*. To do so, students ask themselves what each statement describes. Through listing and categorizing, the students accomplish the most difficult tasks of constructing a map: selecting and relating important information from the text. (See page 54, "Example of a Concept Map.")

Students use the article title or topic as the center of their map. The categories on the KWL work sheet become the map's major concepts; explanatory details are supplied underneath. Lines show the relationship of the main topic to the categories.

8. Guide students in writing a summary of the material. The most difficult part of summarizing—selecting information and organizing it—has already been completed. Instruct students to use the map as an outline for their summary. Because the map depicts the organization of the information, a summary is comparatively easy to construct. The map's center will probably be the title of the summary. Then students should number the categories on the map as they see fit. Each category becomes the topic for a new paragraph. Finally, supporting details in each category are used to expand the paragraph or explain the main idea.

Relevant English–Language Arts Content Standards

Grade Six: Reading Comprehension

2.4 [Students] clarify an understanding of texts by creating outlines, logical notes, summaries, or reports.

Grades Five Through Eight: Writing Strategies

1.0 Students write clear, coherent, and focused essays.

Further Resources

Bryan, Jan. "K-W-W-L: Questioning the Known," *The Reading Teacher,* Vol. 7 (April 1998), 618–20.

Carr, E., and D. Ogle. "K-W-L Plus: A Strategy for Comprehension and Summarization," *Journal of Reading* (April 1987), 626–31.

Hanf, Marilyn B. "Mapping: A Technique in Translating Reading into Thinking," *Journal of Reading,* Vol. 14 (January 1971), 225–30, 270.

Ogle, Donna. "K-W-L: A Teaching Model That Develops Active Reading of Expository Text," *The Reading Teacher,* Vol. 39 (February 1986), 564–70.

Winograd, P. "Strategic Difficulties in Summarizing Texts," *Reading Research Quarterly,* Vol. 19 (Summer 1984), 404–25.

52 *Part II—*
Instructional Strategies

Learning Log

A learning log is a written record of students' perceptions of how and what they are learning as well as a record of student growth and learning over time.

Goals

1. Increase students' awareness of their own learning process and progress.
2. Identify gaps in student learning.
3. Help students explore relationships between what they are learning and their past experiences.
4. Promote fluency and flexibility in student writing that can be transferred to other written assignments.
5. Provide a vehicle for student reflection and metacognition (learning about one's own learning).

Teacher Preparation

1. Decide whether it is necessary to provide specific prompts to students. Often, teachers need to offer suggestions when learning logs are first assigned; for example, what did (or didn't) I understand about the work we did in class today? At what point did I get confused? What did I do about it? How does what we studied relate to experiences I have had in the past?
2. Use an alternative to specific prompts by having students focus on either "process" entries or "reaction" entries. The former records *how* they have been learning, and the latter records *what* they have been learning. Students will need to record both types of entries.

Instructional Procedures

1. Explain the rationale for keeping a learning log. This activity will be particularly important in classes in which writing, especially reflective writing, is not a regular part of the curriculum.
2. Allocate a specific amount of time for writing in the logs (suggestions range from five to 15 minutes per day) and, if possible, schedule it consistently. Many teachers find that the practice works best and comes most logically at the end of class. Others prefer to begin class with this activity when there is a quiet, reflective atmosphere.
3. Develop a system for responding to student entries. Quick, impressionistic responses are usually sufficient and need to be given regularly. Teachers should respond at least once a week.
4. Consider encouraging students to share their entries periodically in small groups. Such sharing may lead to discussions about the material and comparisons of different points of view.

Relevant English–Language Arts Content Standards

Grades Five Through Eight: Literary Response and Analysis

3.0 Students read and respond to historically or culturally significant works of literature that reflect and enhance their studies of history and social sciences. They clarify the ideas and connect them to other literary works. The selections in *Recommended Readings in Literature, Kindergarten Through Grade Eight* illustrate the quality and complexity of the materials to be read by students.

Grades One to Four: Writing Strategies

1.0 Students write clear and coherent sentences and paragraphs that develop a central idea.

Further Resources

Alvermann, Donna E., and Stephen F. Phelps. *Content Reading and Literacy: Succeeding in Today's Diverse Classrooms.* Needham Heights, Mass.: Allyn and Bacon, 1998.

Commander, Nannette E., and Brenda D. Smith. "Learning Logs: A Tool for Cognitive Monitoring," *Journal of Adolescent and Adult Literacy*, Vol. 39 (March 1996), 446–53.

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Student Audience
Beginning readers
Below grade level
At or above grade level

Text Type
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Informational

Special Features
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Sample Learning Log

What I Did	How I Worked and Learned	What I Learned
I watched and listened to the history of tessellations and looked at some of M. C. Escher's artwork.	I wanted to try and create some tessellating artwork.	I have to learn some geometric basics in order to make the artwork.
I went on a walk with the class around the campus to look for tessellations. We made patterns out of leaves we found.	It was interesting to see tessellations in ordinary things like leaves.	I learned that tessellations are all around me in places I never thought of before and that not all patterns are tessellations.
We took notes on the definition and properties of a polygon. We made tessellations with pattern blocks and then on dot paper.	I enjoyed making tessellations with the pattern blocks and then making a tessellation on dot paper.	I learned that the word *polygon* means "many angles." I also found out that the corners are vertices and that polygons are named according to the number of sides they have. I also learned the Greek prefixes for the names.
I measured the angles of several different triangles and different polygons using tangram pieces and then together we discovered the formula for the sum of angles.	At first I was confused because I didn't understand how to use the tangrams to measure angles, but once I understood how to do it, it was interesting.	I learned that to find the sum of angles means to add up all the angles of the polygon. The sum of a triangle always adds up to 180 degrees; for a quadrilateral, the sum adds up to 360 degrees. The formula for finding the sum of angles is (n - 2) 180. To find the sum of angles of a hexagon, take the number of sides (6) and subtract 2, then multiply it by 180, which equals 720.
Today, we ripped the corners off many different triangles and placed them around a point. We measured the degrees that they filled around the point. Then we all made our own triangles and tessellated them.	I really liked this activity because I was amazed that all the triangle tessellations really worked. I thought that some triangles would not tessellate.	After all the different triangle tessellations were displayed, I noticed they all tessellated. I think they tessellated because one triangle's sum is 180 degrees, which fills up halfway around the point. Two triangles completely fill the space around the point with no gaps or overlaps, which would be 360 degrees. If they could all meet evenly around a point, then all triangles would tessellate.

Question-Answer Relationships

The question-answer relationship (QAR) strategy is based on a four-part system for classifying questions: *right there, think and search, author and you,* and *on your own*. Students learn to classify questions and locate answers, recognizing in the process that reading is influenced by the characteristics of the reader, the text, and the context.

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Graphic representation
Student control of reading process
Student ownership of strategy

Goals

1. Develop students' ability to recognize the relationship between a question and the location or source of possible answer locations (i.e., readers' background knowledge as well as information presented in a text).
2. Enhance students' performance in answering questions about content area materials.

Teacher Preparation

1. Select or prepare three passages based on familiar topics. Keep in mind the grade level and reading ability of your students when selecting passages.
2. Prepare at least one question for each passage from each of the four QAR categories.

Instructional Procedures

1. Introduce the concept of QAR categories, in reference to the first passage, by discussing with the class the questions, answers, categories, and reasons why the categories are appropriate.

2. Provide the students with the second passage and set of questions. They answer the questions while working in small groups, indicate the QAR categories, and justify their selections. Provide each group with immediate feedback on the accuracy and completeness of its explanations.

3. Give students the third passage and have them work in groups to prepare questions representing each QAR category. Groups then exchange questions, answer them, and evaluate the appropriateness of the questions in relation to the QAR categories they are supposed to represent.

4. Allow students to practice the QAR approach on progressively longer passages while increasing the number of questions asked.

Relevant English–Language Arts Contents Standards

Grade Four: Reading Comprehension

2.2   Use appropriate strategies when reading for different purposes (e.g., full comprehension, locating information, and personal enjoyment).

2.4   Evaluate new information and hypotheses by testing them against known information.

Further Resources

McIntosh, Margaret E., and Roni Jo Draper. "Applying the Question-Answer Relationship Strategy in Mathematics," *Journal of Adolescent and Adult Literacy,* Vol. 39 (October 1995), 120–31.

Raphael, T. E., and C. Wonnacott. "Heightening Fourth-Grade Students' Comprehension: Sources of Information for Answering Comprehension Questions," *Reading Research Quarterly,* Vol. 20 (Spring 1985), 282–96.

Example of QAR in Action

Right There

The answer is explicitly stated in the text. The question asks for details that are *right there*.

Think and Search

The answer will require integrating information from different areas in the text. The question asks the reader to *think and search* for related information in more than one paragraph.

Author and You

The answer is a combination of information that the reader already knows and what the author states in the text. The question asks for information from the *author and you*.

On Your Own

The answer will come from the reader's own personal knowledge and experience. The question asks for an opinion or information from the reader.

Electricity

All matter is made up of atoms. Within each atom there is a nucleus, and this nucleus has tiny particles called electrons orbiting around it. Atoms with different atomic numbers have different numbers of electrons. When electrons break from their orbit and become free-flying, they form electricity. Rubbing objects against each other, also known as friction, is one way to free electrons.

The term *electricity* dates back to ancient Greece and the experiments of a man named Thales. Thales took an amber stone and rubbed it between his fingers. He noticed that the stone attracted threads from his clothes. In Greek the word *amber* is called *electron*.

1. Where are the charged particles called electrons found?

 Right There _____

 Think and Search _____

 Author and You _____

 On Your Own _____

2. What happened to the electrons in the amber stone that Thales used?

 Right There _____

 Think and Search _____

 Author and You _____

 On Your Own _____

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Example of QAR in Action *(Continued)*

3. Why does static electricity occur in newly carpeted rooms?

Right There _____

Think and Search _____

Author and You _____

On Your Own _____

4. Should Thales have taken more time and thought when he named this new energy source? Why?

Right There _____

Think and Search _____

Author and You _____

On Your Own _____

Questioning the Author

Questioning the author is an approach designed to engage students in the ideas of the text and build understanding.

Goals

1. Provide a concrete way for students to experience the key to successful comprehension: transforming an author's ideas into a reader's ideas.

2. Encourage students to judge the author's success in making ideas clear and admit to finding difficulties in the text without viewing themselves as failures.

3. Overcome students' tendency to resist grappling with text that does not come easily by stimulating young readers to become engaged with the text and consider ideas deeply.

Teacher Preparation

1. Identify a text to use for modeling the questioning-the-author strategy or prepare a copy of the sample text provided. The text should be representative of the content area textbooks students are expected to read and contain some vague or confusing language so that questioning the author can be modeled.

2. Prepare several passages from content area texts on a variety of topics to use for further applications of the questioning-the-author strategy.

Instructional Procedures

1. Remind students of the presence of an author of a textbook; tell them that textbooks are just someone's ideas written down. Explain that different people write things in different ways and that sometimes textbooks are not written as well or as clearly as they should be because what someone has in their mind to say does not always come through clearly in their writing. Because written text is the product of a fallible author, students may need to work to figure out what the ideas are behind an author's words.

2. Demonstrate an application of the questioning-the-author strategy to text. Ask your students to follow along as you read a brief text and model your interaction with it. An example follows:

A Russian Traveler

The day is Friday, October 4. The year is 1957. People in many parts of the earth turned on radios and heard strange news. "Russia has used rockets to put a new moon in the sky," said one station.

At this point in the text, express puzzlement over putting "a new moon in the sky." Read the next segment:

The tiny new moon is a metal ball. It has a radio in it. The radio goes "Beep! Beep! Beep!" as the moon travels along.

Express confusion over how a metal ball with a radio in it can be a moon. Continue reading:

The new moon is named Sputnik.

Explain that now you understand, because you remember that the first Russian satellite was named *Sputnik.* Mention that the author could have said that in a clearer way. Then read:

The ship is just big enough to carry a little dog. The ship sends out signals about the dog.

Say: "Oh! There is a dog on the spaceship! I thought they just meant that's what size it was—big enough for a dog!" Read on:

Everywhere people became interested in rockets and spaceships.

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Writing emphasis		
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Student control of reading process		
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Say: "That seems like a big jump from talking about the dog. I guess maybe the author is trying to connect the sentence with the beginning about people all over the world turning on their radios."

Culminate the discussion by making clear the analogy in a revised version of the text, as follows:

Russia has used rockets to put a satellite into space. The tiny satellite is shaped like a metal ball.

After introducing students to the strategy, proceed with several sessions presenting passages from content area texts on a variety of topics. The teacher's role is to guide the student through the text, making sense of the author's words by using prompts. A general procedure for continuing sessions follows in steps 3, 4, and 5.

3. Ask students to read the text and talk about the ideas the author is trying to get across and to judge whether the author has made those ideas clear. As students read, prompts are offered to keep the focus on seeking out and putting together the author's ideas:

    • What is the author trying to tell you?

    • Why is the author telling you that?

    • Is the message stated clearly?

    Examples of further queries developed to guide questioning-the-author discussions are provided on the following pages.

4. As students discover confusing problems in the text, prompt them to recast those ideas in clearer language:

    • How could the author have stated the ideas in a clearer way?

    • What would you want to say instead?

5. Keep the interaction going by reacting conversationally to the students, sometimes recapping what the students have said or reinforcing a student's point, saying, "You're right; that's not very clear, is it?" or "I think you've got something there." Foster interaction among students by asking a student to elaborate on another student's comment.

Relevant English–Language Arts Contents Standards

Grade Four: Reading Comprehension

2.4 Evaluate new information and hypotheses by testing them against known information and ideas.

Grade Five: Reading Comprehension

2.3 Discern main ideas and concepts presented in texts, identifying and assessing evidence that supports those ideas.

2.4 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge

The questioning-the-author approach, if skillfully extended, would also address the Literary Response and Analysis standards (grades four through twelve) and the standards under Expository Critique (grades five through twelve).

Further Resources

Beck, Isabel L., and others. "Questioning the Author: A Yearlong Classroom Implementation to Engage Students with Text," *The Elementary School Journal,* Vol. 96 (March 1996), 4.

Beck, Isabel L., and others. *Questioning the Author*. Newark, Del.: International Reading Association, 1997.

McKeown, Margaret G.; Isabel L. Beck; and M. Jo Worthy. "Grappling with Text Ideas: Questioning the Author," *The Reading Teacher,* Vol. 46 (April 1993), 7.

Sample 1
Questioning the Author

Focusing Queries Developed for Informational Text

Goal	Queries
Initiate discussion.	What is the author trying to say?
	What is the author's message?
	What is the author talking about?
Help students focus on the author's message.	That's what the author says, but what does it mean?
Help students link information.	How does that connect with what the author already told us?
	What information has the author added here that connects to or fits in with _____?
Identify difficulties with the way the author has presented information or ideas.	Does that make sense?
	Is that said in a clear way?
	Did the author explain that clearly? Why or why not? What's missing? What do we need to figure out or find out?
Encourage students to refer to the text either to show them they have misinterpreted a text statement or to help them recognize that they have made an inference.	Did the author tell us that?
	Did the author give us the answer to that?

Reading Comprehension **79**

Sample 2
Questioning the Author

Focusing Queries Developed for Narrative Text

Goal	Queries
Encourage students to recognize plot development.	What do you think the author is getting at here?
	What's going on? What's happening?
	What has the author told us now?
Motivate students to consider how problems are addressed or resolved.	How did the author settle that?
	How did the author work that out?
Help students recognize the author's technique.	How has the author let you know that something has changed in the story?
	How is the author painting a picture here?
	How did the author let you see, feel, or smell something?
	What is the author doing here? How did the author create humor, suspense, sadness, and so on? Why do you suppose the author used foreshadowing or flashback, and so on?
Prompt students to consider characters' thoughts or actions.	How do things look for (character's name) now?
	What is the author trying to tell us about (character's name)?
Prompt students to predict what a character might do.	Given what the author has already told us, how do you think (character's name) will handle this situation?

Reciprocal Teaching

Reciprocal teaching is an instructional approach characterized by an interactive dialogue between the teacher and students in response to segments of a reading selection. The dialogue is based on four processes: questioning, summarizing, clarifying, and predicting.

Goals

1. Help students develop the ability to construct meaning from text and monitor their reading comprehension to ensure that they are in fact understanding what they read.

2. Provide modeling, role-playing practice, and feedback of effective strategies that good readers use to facilitate their comprehension.

3. Help students become actively engaged in their reading as they gradually assume the role of discussion leader and develop the ability to conduct the dialogues with little or no assistance from the teacher.

Teacher Preparation

1. Select materials that are sufficiently challenging and representative of the types of materials that students read in class.

2. Review the first few paragraphs of the reading selection and plan how to model the flexible and independent use of all four processes.

Instructional Procedures

1. Introduce questioning, summarizing, clarifying, and predicting as helpful processes that good readers use.

2. Work with a small group of readers (four to six). Use the four processes to model leading a dialogue about a short segment (typically one to two paragraphs) of a textbook.

Question: After students read the selection, ask a student to answer an important question about the reading.

Summarize: Restate what you have read in your own words.

Clarify: Focus on what makes the reading difficult by discussing any confusing aspects of the selection.

Predict: Speculate about what is likely to occur next.

3. Be sure students are comfortable with the four processes, then repeat the procedure with the next segment of text and a student in the role of discussion leader.

4. Provide guidance and feedback on the use of the four processes while students take turns leading the group through the steps in the succeeding segments.

Variation

Reciprocal teaching may be taught and practiced with videos as a warm-up exercise before students use the technique on written texts.

1. Divide the class in pairs. One person is designated "A" and the other, "B."

2. Introduce the video to the class, telling students what they will be viewing and what to examine.

3. Start the video and stop it every ten minutes.

4. When the video is stopped the first time, partner A will lead a dialogue by asking partner B questions that involve summarizing, questioning, clarifying, and predicting based on the content in the video.

5. Restart the video after approximately three minutes.

6. Continue the procedure, alternating the leadership role in the dialogue between partners A and B.

7. Discuss the video with the entire class, calling on students randomly.

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Writing emphasis
Graphic representation
Student control of reading process
Student ownership of strategy

Relevant English–Language Arts Content Standards

Grade Two: Reading Comprehension

2.4 [Students] ask clarifying questions about essential textual elements of exposition (e.g., *why, what if, how).*

2.5 [Students] restate facts and details in the text to clarify and organize ideas.

Grades Five Through Eight: Reading Comprehension

2.0 They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose.

Grade Five: Reading Comprehension

2.3 [Students] discern main ideas and concepts presented in texts, identifying, and assessing evidence that supports those ideas.

2.4 [Students] draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.

Grade Six: Reading Comprehension

2.7 [Students] make reasonable assertions about text through accurate supportive citations.

Further Resources

Palinscar, A. M., and A. L. Brown. "Reciprocal Teaching of Comprehension-Fostering and Comprehension-Monitoring Activities," *Cognition and Instruction,* Vol. 1 (1984), 117–75.

Rosenshine, Barak, and Carla Meister. "Reciprocal Teaching: A Review of the Research," *Review of Educational Research,* Vol. 64 (Winter 1994), 479.

Example of Reciprocal Teaching Technique

Present students with a sample passage, such as the following:

A light bulb consists of several components: a filament, an inert gas, electrical contacts, and a glass container called a bulb. Light is produced when an electric current passes through the filament, a threadlike conductor. The electric current heats the filament to a temperature that is high enough to produce white light.

The student leader directs a dialogue about the passage as follows:

Question: What are the components of a light bulb? What has to occur for light to be produced?

Summarize: Retell in your own words the steps needed to produce light, or draw a diagram.

Clarify: What exactly is a filament and how does the current react to it?

Predict: What will the author explain next?

The Research Process

The research process is a library research inquiry process that begins when a student first identifies a need for information and continues to access, evaluate, and use the information. Information literacy is achieved when the student finally analyzes and evaluates the results of the process and internalizes it for future application. The collaborative expertise of a library-media teacher will be valuable in carrying out the research process.

Goals

1. Help students become creative and critical thinkers and effective users of ideas and information.
2. Help students develop the ability to access, evaluate, and use information from a variety of sources.

Teacher Preparation

1. Plan the scope of the assignment and the most essential skill-building activities.
2. Plan the resources to be made available to students, including the help of a library-media teacher, if possible.

Instructional Procedures

1. Explain to students a problem or an assignment, including how the research process and the results will be evaluated, allowing students to generate questions or find topics of personal interest.
2. Have students identify general types of questions or other information needs. Generate ideas by using individual and group brainstorming, discussions, and prompted writing. Use cluster and map techniques (see page 130) to organize brainstorming notes.
3. Explain that the first step of the quest involves formulating a preliminary central question or thesis statement.

4. Have students record prior knowledge relating to the central question through prompted writing, brainstorming, noting key words, and organizing important ideas into a graphic organizer or outline (see page 42). If their prior knowledge is limited, use general sources of information (e.g., a knowledgeable person, encyclopedia, video) to focus on key terms, and encourage students to restate information in their own words.
5. Identify potential resources, which may include personal interviews, firsthand observations, newspapers and magazines, maps, online searches, web sites, video and laserdisc programs, museums, and print or online subject-specific reference sources.
6. Help students determine the components of the central question of the search and phrase these as sub-questions, which will become a plan for the search. Encourage students to distinguish between more important and less important questions and to reanalyze search strategies as success or failure is experienced.
7. Support students as they locate and explore previously identified resources. This involves locating a citation or reference to a source, gaining access to the source itself, and using initial sources as a lead to other sources. Students revise or redefine the central question by narrowing or broadening it as necessary.
8. Encourage students to select the most useful resources by evaluating the strengths and weaknesses of the resources in light of the central research question.
9. Help students extract the relevant and useful information from the appropriate resources after skimming to locate relevant material. Teach students to interpret, paraphrase, and summarize

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as they take notes and to organize their paraphrased notes according to their search questions. In some cases drawing diagrams, making audio recordings, or collecting artifacts may serve the purpose instead of writing notes.

10. Have students evaluate their information for objectivity, consistency, and usefulness in addressing the central question; consider whether it is up-to-date; and decide whether the source is an authority on the subject. Remind students of the distinctions between fact, opinion, and propaganda throughout this process. Direct students to organize their notes and ideas by developing an outline or graphic organizer.

11. Direct students to integrate the fragments of information into a comprehensible whole in preparation for presentation. Students may present papers, dramatizations, panel discussions, multimedia presentations, models, demonstrations, or schoolwide projects.

12. Conclude by having students evaluate in writing both the project and the search process. The student evaluation should include (1) the steps in the search, resources used, problems encountered, and breakthroughs; (2) what was learned; (3) what it means to the student; and (4) how the student has grown as a researcher.

Relevant English–Language Arts Content Standards

Grade Five: Reading Comprehension

2.1   Understand how text features (e.g., format, graphics, sequence, diagrams, illustrations, charts, maps) make information accessible and usable.

Grades Five Through Eight: Writing Applications

2.3   Write research reports.

Grades Nine and Ten: Writing Applications

2.3   Write expository compositions, including analytical essays and research reports.

Grades Eleven and Twelve: Writing Applications

2.4   Write historical investigation reports.
2.6   Deliver multimedia presentations.

Grade Eight: Writing Strategies

1.4   Plan and conduct multiple-step information searches by using computer networks and modems.

Grade Four: Speaking Applications

2.2c Make informational presentations that incorporate more than one source of information (e.g., speakers, books, newspapers, television or radio reports).

Grade Seven: Speaking Applications

2.3c Deliver research presentations that include evidence generated through the formal research process (e.g., use of a card catalog, *Reader's Guide to Periodical Literature,* computer databases, magazines, newspapers, dictionaries).

Grades Eleven and Twelve: Speaking Applications

2.4a Deliver multimedia presentations that combine text, images, and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD-ROMS, online information, television, videos, and electronic media-generated images.

Further Resources

From Library Skills to Information Literacy. Prepared by the California School Library Association. San Jose, Calif.: Hi Willow Research and Publishing, 1997.

Analogy Graphic Organizer

The analogy graphic organizer provides a visual framework for students to analyze important relationships among concepts and to identify the similarities and differences between a new concept and something with which they are already familiar.

Goals

1. Expand student understanding of important concepts.

2. Help students understand how an analogy can be used to illustrate the similarities and differences between a new concept and something familiar to them.

Teacher Preparation

1. Try to determine what students already know about possible analogous relationships involving a concept you want to introduce.

2. Select one concept familiar to students that can be used to develop an analogous relationship to the new concept.

Instructional Procedures

1. Discuss with students what an analogy is and provide an example, such as the following: Gills are to fish as lungs are to people.

2. Elicit from students a list of specific characteristics that the two concepts you have chosen have in common.

3. Elicit a similar list of differences.

4. Discuss with students the categories that form the basis for the relationship between the concepts.

5. Encourage students to use the analogy graphic organizer to write a summary describing the similarities and differences between the two concepts.

6. Demonstrate how the analogies can be used as retrieval clues or mnemonic (i.e., memory assistance) devices to help students recall information.

Relevant English–Language Arts Content Standards

Grades Five Through Eight: Word Analysis, Fluency, and Systematic Vocabulary Development

1.0 Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Grade Eight: Word Analysis, Fluency, and Systematic Vocabulary Development

1.1 [Students] analyze idioms, analogies, metaphors, and similes to infer the literal and figurative meanings of phrases.

Further Resources

Buehl, Doug. *Classroom Strategies for Interactive Learning.* Schofield: Wisconsin State Reading Association, 1995.

Cook, Doris, *Strategic Learning in the Content Areas.* Madison: Wisconsin Department of Public Instruction, 1989.

Sample

Analogy Graphic Organizer

NEW CONCEPT   **FAMILIAR CONCEPT**

| Decimals | ⬌ | Fractions |

Similarities

Both express whole numbers and parts of a whole number.

The amounts they express may be the same.

Both may have a value less than one, equal to one, or more than one.

The four operations of adding, subtracting, multiplying, and dividing can be performed on both decimals and fractions.

Any fraction can be expressed as a decimal.

Differences

Fractions have a numerator and a denominator.

Decimals use a decimal point to separate the whole numbers from the parts.

Fractions are written as two numbers separated by a horizontal or diagonal line.

Operations on fractions require a set of algorithmic steps different from those for whole numbers and decimals.

Relationship Categories

Forms

Amounts expressed

Operations

Algorithms

Concept Wheel/Circle

The concept wheel/circle is an instructional technique that builds on students' background knowledge, encourages brainstorming and discussion, and visually displays the connection between previous conceptual knowledge and the new word.

Goals

1. Promote growth in vocabulary, conceptual understandings, and comprehension.
2. Activate and extend the background knowledge of students.

Teacher Preparation

1. Select an important concept to teach.
2. Have dictionaries available.

Instructional Procedures

1. Introduce the concept to students, writing the word on the chalkboard.
2. Ask students to generate a list of other words or phrases that come to mind when they think of the target word.
3. Lead a class discussion on students' responses.
4. Write a list of words from their responses that fit appropriately with the target word on the chalkboard.
5. Direct students to find a definition of the word in the textbook, glossary, or dictionary.

6. Read the definition of the target word and direct students to compare their generated list of words with the definition.
7. Direct students to look over the words on the board very carefully and with the definition in mind to decide on at least three words from the list that will help them remember the target word.
8. Tell students to write their selected words in the concept wheel to help them remember the concept (see example).

Relevant English-Language Arts Content Standards

Grade Seven: Vocabulary and Concept Development

1.3 Clarify word meanings through the use of definition, example, restatement, or contrast.

Grade Eight: Vocabulary and Concept Development

1.3 Use word meanings within the appropriate context and show ability to verify those meanings by definition, restatement, example, comparison, or contrast.

Further Resources

Rupley, William H.; John W. Logan; and William D. Nichols. "Vocabulary Instruction in a Balanced Reading Program," *The Reading Teacher*, Vol. 52 (December 1998/January 1999), 340.

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Graphic representation
Student control of reading process
Student ownership of strategy

Example of a Concept Wheel

Photosynthesis

light
combining
food making
chlorophyll
sun
green leaves
solar energy
oxygen
carbon dioxide

Photosynthesis	Light
Chlorophyll	Food making in plants
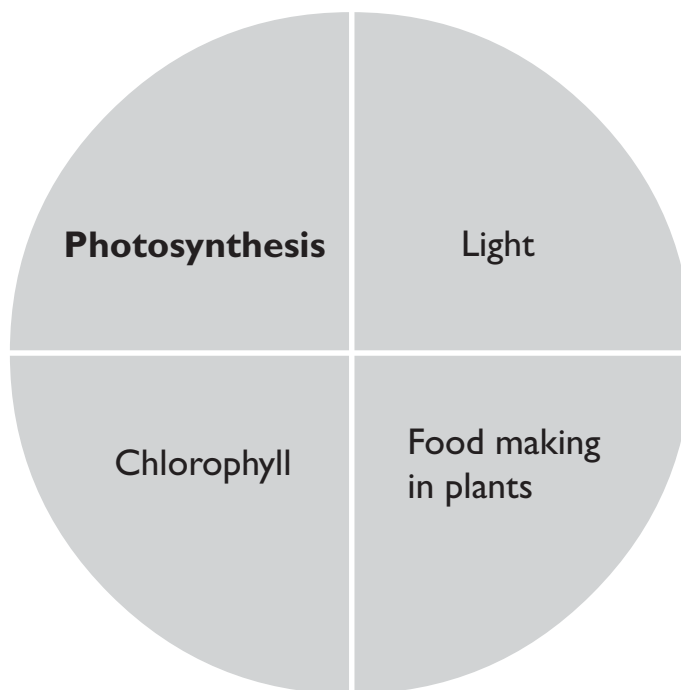
LINK

LINK is a preparation-for-learning strategy that prompts students to brainstorm what they will encounter in a reading selection and direct their own discussion of what they already know about a topic. The acronym stands for *List, Inquire, Note,* and *Know.*

Goals

1. Help students link their prior knowledge with the information they will be studying.
2. Prompt students to anticipate content and make associations, and motivate them to study new material carefully.

Teacher Preparation

Select an important concept or term in the material on which you intend to focus. Be sure it is a word that will trigger a response from the students.

Instructional Procedures

1. Display the term or concept on an overhead transparency or a chalkboard.

List

2. Ask the students to list on paper, within three minutes, words associated with the concept.
3. Display their responses on the overhead transparency or chalkboard. To ensure maximum participation, ask for one response from each student in the class. You may want to call on less active participants first to increase chances of their involvement. Allow students to offer a second idea after everyone has responded.

Inquire

4. Students ask other students about items on the list. The teacher's role at this stage is largely passive and neutral. The purpose of this activity is to allow students to share and elaborate on their understandings. Let *them* discover their errors and difficulties.

Note

5. Turn off the overhead projector or erase words on the chalkboard. Then instruct the students to turn over their papers and write down everything that comes to mind from prior experience and class discussion in response to the term or concept on the board. Limit the time for brainstorming to one minute. One variation is to have students write a definition of the concept.

Know

6. Students are now ready to read the passage. After reading, they may be asked to note what they now know after they have encountered new material.

Relevant English–Language Arts Content Standards

Grade Four: Reading Comprehension

2.3   [Students] make and confirm predictions about text by using prior knowledge and ideas presented in text itself.

Grades One Through Twelve: Reading Comprehension

2.0   Students read and understand grade-level-appropriate material.

Further Resources

Buehl, Doug. *Classroom Strategies for Interactive Learning*. Schofield: Wisconsin State Reading Association, 1995.

Cook, Doris. *Strategic Learning in the Content Areas.* Madison: Wisconsin Department of Public Instruction, 1989.

Vaughan, Joseph L., and Thomas H. Estes. *Reading and Reasoning Beyond the Primary Grades*. Boston: Allyn and Bacon, 1986.

Example of the LINK Technique

ABOLITIONISM

slavery	black people	Africans	North	South
antislavery	slave masters	cruelty	Civil War	conflict
"North Star"	Frederick Douglass	Canada	Lincoln	Harriet Tubman
overseers	John Brown	prejudice	lashing	*Uncle Tom's Cabin*
abolish	slave revolts	Quakers	protest	Underground Railroad

Student Brainstorm:

Abolitionism is the desire to abolish slavery. Before the Civil War many black people in the South were slaves. The Quakers (a religious group) in the North were against slavery and helped slaves escape to the North into Canada. Some abolitionists, like John Brown, led slave revolts; others, like Harriet Tubman, led slaves to freedom in the North. They were able to do this by using a system of signals, stops, and hiding places. This system was known as the Underground Railroad. A newspaper published and written by Frederick Douglass called the North Star often contained coded messages that helped people make their way to freedom.

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Contextual Redefinition

Contextual redefinition is a strategy for showing students the importance of context in ascertaining meaning. It is useful in those instances in which difficult terms can be defined by the context in which they occur.

Goals

1. Help students realize that context can provide additional clues to the meaning of words and engage students in using context to discover the meaning of unknown words.
2. Help faltering readers experience the thinking processes involved in deriving a definition from context as students model appropriate reading behavior for one another.

Teacher Preparation

1. Select a few words students will encounter in text that are essential for comprehending important concepts and yet may be difficult for students as they read.
2. Provide a context with clues of definition or description for each word. If such a context already exists in the text, use that context instead of creating one. If the text lacks a sentence or short paragraph containing clues for a given word, create one that will provide significant information about the meaning of the word.

Instructional Procedures

1. Present the words in isolation. Using an overhead transparency or chalkboard, ask students to provide a meaning for each word. Students then support their choices and, as a group, arrive at a consensus on what they believe is the best meaning. Examples are as follows:
   - vapid
   - lummox
   - piebald

2. Present the words in a sentence. Using the sentence or short paragraph previously developed, present the word in its appropriate context, as in these examples:
   - Even though she intended to discuss a lively issue, her conversation with me was *vapid*, lacking animation and force.
   - As a result of his ungainly, slovenly appearance, Bill was often unjustly labeled a *lummox*.
   - Though described as *piebald* because of its spotted black and white colors, the horse was still considered beautiful by many horse lovers.

3. Ask students to offer suggestions for the meaning of each word and defend their definitions. This process exposes less able readers to the thinking processes involved in deriving a definition from context as students model appropriate reading and thinking behavior for one another.

4. Have students or groups of students consult a dictionary to verify the choices offered by class members.

Relevant English–Language Arts Content Standards

Grade Three: Word Analysis, Fluency, and Systematic Vocabulary Development

1.6 Use sentence and word context to find the meaning of unknown words.

Grade Five: Word Analysis, Fluency, and Systematic Vocabulary Development

1.5 Understand and explain the figurative and metaphorical use of words in context.

Grade Six: Word Analysis, Fluency, and Systematic Vocabulary Development

1.4 Monitor expository text for unknown words or words with novel meanings by using word, sentence, and paragraph clues to determine meaning.

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Grades Nine and Ten: Word Analysis, Fluency, and Systematic Vocabulary Development

1.2   Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.

Further Resources

Cunningham, J. W.; P. M. Cunningham; and S. V. Arthur. *Middle and Secondary School Reading*. New York: Longman, 1981.

Moore, David W.; John E. Readence; and Robert J. Rickelman. *Prereading Activities for Content Area Reading & Learning.* Newark, Del.: International Reading Association, 1989.

Readence, J. E.; T. W. Bean; and R. S. Baldwin. *Content Area Reading: An Integrated Approach* (Second edition). Dubuque, Iowa: Kendall Hunt, 1985.

Phonological and riint Skills   **119**

Think Aloud

The think-aloud strategy is an approach in which teachers verbalize their own thought processes while reading orally to students. In this way teachers model for students the cognitive and meta-cognitive[1] processes that good readers use to construct meaning and monitor comprehension.

Goals

1. Give students the opportunity to see the kinds of strategies a skilled reader uses to construct meaning and cope with comprehension problems.
2. Develop students' ability to monitor their reading and take corrective action when needed.
3. Provide an opportunity for students to experience effective reading and problem solving and to transfer these strategies to their independent reading.

Teacher Preparation

1. Select a passage that contains points of difficulty, ambiguities, or unknown words in preparation for oral reading.
2. Preview the passage and imagine that you are reading it for the first time as one of your good readers would.
3. Use a copy of the passage to make note of the comments and questions to model for students.

Instructional Procedures

1. Read the passage aloud, telling students to follow along silently and listen to how you construct meaning and think through trouble spots. The following are examples of the thought processes you might model for your students:
   - Make predictions. (Show how to develop hypotheses.)
   - Describe any pictures forming in your head while you read. (Show how to develop images during reading.)
   - Share an analogy. (Show how to link prior knowledge with new information in the reading selection.)
   - Verbalize a confusing point. (Show how you monitor your ongoing comprehension and become aware of problems.)
   - Demonstrate fix-up strategies. (Show how you address comprehension problems by using fix-up strategies.)
2. Select a logical stopping point, and have students use some of those strategies during a silent reading of the passage.
3. Model several experiences, then have students work with partners to practice "think alouds" by taking turns in reading orally and sharing thoughts. For struggling readers, move from carefully developed materials with obvious problems to school materials of various types and lengths.

Relevant English–Language Arts Content Standards

Grades Two Through Four: Reading Comprehension

2.0 Students read and understand grade-level-appropriate material. They draw upon a variety of comprehension strategies as needed, including generating and responding to essential questions, making predictions, and comparing information from several sources.

Grade Four: Reading Comprehension

2.2 [Students] use appropriate strategies when reading for different purposes (e.g., full comprehension, locating information, personal enjoyment).

Further Resources

Davey, B. "Think Aloud—Modeling the Cognitive Process of Reading Comprehension," *Journal of Reading* (October 1983), 44–47.

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[1] Metacognition means awareness of one's own processing behaviors.

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Example of Think Aloud

The following material is an example of a passage and the thoughts that a teacher might express aloud during the oral reading:

Passage

Salaam frantically searched for the address listed on his clipboard; he had six more packages to deliver before his shift ended. The building he had entered had eight floors, and he hoped that number 456 Lakeside was an apartment on the fourth floor of this old, dilapidated building.

Teacher Thinking Aloud

I predict that Salaam, who is a delivery man for a shipping company, will not find the address because the author described the building as being run-down.

I see the building as being one of many apartment buildings on a busy street in a big city. I imagine that there could be paint peeling off the walls and bars on the windows.

I can compare this situation to the time I was in my hometown, and I had driven into an area that looked like what the author is describing. I was afraid and wanted to leave.

Passage Continued

Salaam climbed the stairs to the fourth floor. As he walked from door to door checking numbers, he felt the floor vibrate. He felt invisible hands push him from side to side. The whole building started to rumble. Hanging on to the package, Salaam reached for the bannister on the stairwell as it gave way.
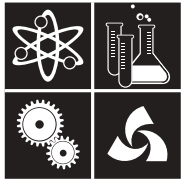
Teacher Thinking Aloud

I don't understand how invisible hands could be pushing him. I'm not sure what is happening to Salaam and where the story is going.

I'm going to keep reading and hope my level of understanding will increase. If it doesn't, then I will reread the passage or ask someone.

Strategic Science Teaching, Grades K-12:

A Sampler of Science Lessons Connecting Literature with the California Standards

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Physical Science

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