

On Target: Strategies to Help Readers Make Meaning through Inferences

Grades 4 - 12



ESA Regions 6 & 7

Dear Educator:

As proficient readers, it is sometimes easy to forget that the process of reading is an active one requiring us to make meaning as we go along. Most of us have been reading for so long—be it reading for pleasure or reading for learning—that we sometimes forget how far beyond the written page our reading goes. One of the most difficult skills young readers need to learn is the skill to read what doesn't appear in black and white on the written page. In other words, the skill to infer. In order to infer meaning, readers must combine the information that the author has written with their own experiences—both reading experiences and life experiences.

Not only is the process of making inferences difficult for a beginner, the process of teaching students to make inferences is not an easy one. And, like so many good reading habits, it doesn't come naturally for most of our students. The process has to be explicitly taught to students, modeled for students, practiced by students. Eventually, making inferences will become a habit of mind that students will participate in without hesitation.

On Target: Strategies to Help Readers Make Meaning through Inferences, focuses on strategies that teachers can use to help students hone their skills at making inferences. The strategies are ones that teachers say work well in their classrooms. They are strategies that are supported by research and best practice in classrooms.

This booklet is the fourth booklet in the *On Target* series compiled by South Dakota's Education Service Agencies 6 and 7 with support from the South Dakota Department of Education. The three previously published booklets are *On Target: Reading Strategies to Guide Learning, On Target: Strategies to Improve Student Test Scores,* and *On Target: Strategies to Help Struggling Readers.*

June Preszler, Education Specialist SD Education Service Agency, Black Hills Region 7

Table of Contents

Thinking about Inferences	
Traditional Cloze Technique	5
Picture Book Inferences	6
Picture Book Inferences Chart	7
30 Children's Books for Making Inferences	8
Inferring Feelings Game	9
Pairs Read: Read to Analyze	10
Asking Inferential Questions: Solving the Mystery	11
Five-Minute Skill Builders	12
Inferences That Skilled Readers Make	13
Show but Don't Tell	
Show but Don't Tell Template	15
Observe to Infer	16
Observe to Infer Template	17
Making Inferences with Figurative Language	18
Making Inferences with Figurative Language (cont.)	19
Inference Chart	20
Inference Chart Template	
It SaysI SayAnd So	22
It Says Template	23
Questioning the Author (QtA)	24
Questioning the Author Template	25
Inference through Advertising	26
Inference through Advertising Template	27
Connections to Previous On Target Books	28
Websites to Explore	29
Books for Further Reading	30
Books for Further Reading (cont.)	31

Editorial Credits

June Preszler, editor; Josephine Hartmann, contributing editor; Gloria Gunn, designer; Michelle Mehlberg, content consultant

The *On Target* strategy booklets are created by ESA 6 & 7 with support from the South Dakota Department of Education

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Thinking about Inferences

Inferential thinking is often called "reading between the lines." It's like mathematics in a way, because the answer is not given in an arithmetic problem. One has to figure out the correct answer from the information that **is** given. Inferring in reading – and in life itself – is figuring out answers from the facts to which we have access.

In discussing inferences, a friend noted that most of the misunderstandings in the history of the world could probably be attributed to faulty inferences. This underscored for me, at least, the fact that the background information and inferential skill that the reader brings to the page determine the meaning of any communication the author intended. Our lives certainly move with greater ease if we "read" our day-to-day existence as well as we read text. If my grandson's lips are quivering, it signals me to give him a big hug. If my boss looks grumpy, it may not be the best day to discuss a new project I have in mind.

When we approach inferential thinking with students, we might start from the point of "reading" people. I could pretend to look terrified and ask them what they think my facial expression and gestures mean. They would be inferring my emotions correctly if they conclude that I'm frightened or scared of something. Inferring from communication, whether digital, print, or spoken is about reading text, body language, verbal expression, faces, tone of voice. . .one could go on an on. The mind is capable of "filling in the gaps" which is what inferential thinking is all about.

Josephine Hartmann, Reading Specialist and Consultant, TIE

From Michelle Mehlberg South Dakota Reading First Director

"Every reader, if he has a strong mind, reads himself into the book, and amalgamates his thoughts with those of the author"

~Johann Wolfgang von Goethe~

Good readers interact with text without even realizing that they are doing it. Poor readers, on the other hand, often are unaware that this is what they are supposed to do. They read literally without bringing in prior knowledge. Reading comprehension can be affected by prior knowledge about the subject. Readers who possess rich prior knowledge about the topic of a reading often understand the reading better than classmates with low prior knowledge. It is critical that readers relate their world knowledge to the content of a text in order to make sense of what they are reading.

Students use prior knowledge to make inferences about the text that they are reading. Inferences are evidence-based guesses. They are the conclusions a reader draws about the unsaid in a passage based on what is actually said by the author. Inferences drawn while reading are much like inferences drawn in everyday life. Students make inferences throughout their school day based on their peers' physical appearance, actions, speech, or based on their teachers' facial expressions, and body language. Students need to be taught how to transfer these skills and strategies to their interactions with text.

Drawing inferences while reading requires willingness to look at the evidence and come to a conclusion that has not been expressed in words. Drawing inferences in everyday life requires the same skills. Only in reading, the evidence for inference consists solely on words rather than actual events, expressions, or gestures.

To infer as students read is to go beyond literal interpretation and to open up a world of meaning that is deeply connected to their lives. When children read and comprehend text, a whole world opens up for them. In opening up the world, students learn to read with joy and understanding, learn and grow through reading, and read critically and thoughtfully.

"It can be a conclusion drawn after considering what is read in relation to one's beliefs, knowledge, and experience. Inference can be a critical analysis of a text: a mental or expressed argument with an author, an active skepticism about what is stated in the text, or recognition of propaganda. Inference is, in some situations, synonymous with learning and remembering. . ."

Mosaic of Thought, Keene & Zimmerman, 153

Traditional Cloze Technique

B ased upon the psychological theory of *closure* (Taylor, W.L. 1953), the cloze procedure was subsequently developed as a tool for many aspects of reading. The cloze theory suggests that a person attempts to complete any pattern that is not complete. Cloze procedure makes use of semantic (word meaning) and syntactic (word order or grammatical) clues to help a person infer or make educated guesses about the meanings of unknown words. A cloze activity can be easily created for any instructional level.

Steps:

- 1. Select a passage of about 250 words at the appropriate reading level or from the content text being studied.
- 2. Include the first and second sentences in their entirety.
- 3. Every fifth word is then deleted from the remainder of the passage and replaced with a line of fifteen spaces length.
- 4. Proper nouns are not deleted if they are the fifth word; instead, the following (or sixth word) is deleted.
- 5. The cloze procedure may be used to provide practice for students in deducing unknown vocabulary words in their reading. It provides an excellent demonstration of inferring vocabulary meanings from unfamiliar words.

Adaptation:

Cloze exercises may also be used to determine if a specific passage is of an appropriate reading level for the students who will be using it. In that case, the number of deleted words (or blanks) is divided by the number of blanks completed with the exact deleted word. 60% match means independent reading level; 40% - 60% means instructional reading level; less than 40% match means frustration reading level.



Sources

- Taylor, W.L. "Cloze Procedure: A New Tool for Measuring Readability." *Journalism Quarterly* (1953): 415-433.
- Miller, Wilma H. Activities and Materials for Improving Content Reading Skills. San Francisco: Jossey and Bass, 1999, 93-100.

Picture Book Inferences

Teachers of younger children frequently use picture books to teach both reading and thinking. However, there are thousands of picture books appropriate for much older readers. These books are valuable in teaching inferential thinking.

As students complete the strategy, they rely on both pictures and texts to predict outcomes, infer ideas, and construct meaning for the story. The difference between prediction and inferring is that predictions are either confirmed or refuted by the end of the story. Inferences may remain unresolved by the ending.

Steps:

- 1. Select a book with illustrations that show moods as well as events. Covers and titles provide a good starting point.
- 2. Ask students to look at the book cover and the title and ask what they can infer from what they see.
- 3. Provide students with a Picture Book Inference Chart.
 - As students learn the strategy have them practice by working in groups.
 - Once most students are proficient at using the strategy, move them into pairs.
 - As the process becomes routine, students will be able to work independently.
- 4. Students use the chart as a framework for analyzing the text using the following column headings. (A sample template is provided on page 7.)
 - Quote, Photo, Illustration
 - Inference Drawn
 - +, **-**, **I**
- 5. When introducing the strategy, lead students through the initial pages of the picture book. Guide student thinking with questions that ask them to base their guesses on details from the text.
- 6. Students record the information on the chart as the story develops. As students make predictions, make sure they can explain the text connection. Possible questions might include the following:
 - How did you know?
 - Why did you make that prediction?
 - What made you think ——— would happen?
- 7. When students have finished the book, they go back and complete the third column using a + to indicate predictions that were confirmed and a if they are contradicted. Unresolved ideas are marked I to indicate that the idea is an unconfirmed inference.

Suggestions/Adaptations:

- Once students have mastered the use of picture books to make inferences, progress to more difficult materials magazine articles, textbook sections and chapters, novels, newspaper articles.
- When using more difficult texts without photographs or illustrations, ask students to make inferences from blocks or paragraphs of the text. Another option is to provide students with text quotations from which they can base their inferences.

Sources:

Harvey, Stephanie and Anne Goudvis Strategies That Work. Portland, ME: Stenhouse, 2000, 107-109. University of Texas System/Texas Education Agency. Meeting the Needs of Struggling Readers: A Resource for Secondary English Language Arts Teachers, 2003.

"Applying Question-Answer Relationship to Pictures." *Read-Write-Think*. IRA. http://www.readwritethink.org/lesson_images/lesson370/booklist.pdf>.

Picture Book Inferences Chart

Picture/Illustration/Quote	Inference	+ = I

30 Children's Books for Making Inferences

Aardema, Verna. Why Mosquitoes Buzz in People's Ears. New York: Scholastic, 1980. Abercrombie, Barbara. Charlie Anderson. New York: Alladin, 1995. Baylor, Byrd. The Table Where Rich People Sit. Alladin, 1994. Berger, Barbara. Grandfather Twilight. New York: Paperstar/Putnam, 1996. Bierman, Carol, and Barbara Hehner. Journey to Ellis Island. New York: Hyperion Books for Children, 1998. Blegvad, Lenore. Anna Banana and Me. New York: Alladin, 1985. Bunting, Eve. Dandelion, New York: Voyager, 2001. ---. Smokey Night. San Diego: Harcourt Brace, 1994. ---. The Wall. New York: Clarion, 1990. Clifton, Lucille. The Boy Who Didn't Believe in Spring. New York: Unicorn, 1988. Cohen, Caron Lee. The Mud Pony. New York: Scholastic, 1988. Cronin, Doreen. Duck for President. New York: Simon and Schuster, 2004. Fleischman, Paul. Bull Run. New York: Scholastic, 1993. ---. Dateline: Troy. Cambridge, MA: Candlewick Press, 1996. Fyleman, Rose. Fairy Went A-Marketing. New York: Puffin, 1992. Hazen, Barbara Shook. Tight Times. New York: Puffin, 1983. Hearne, Betsy. Seven Brave Women. New York: Greenwillow, 1997. Innocenti, Roberto. Rose Blanche. Mankato, MN: Creative Education, 2003. Kalman, Maira. Fireboat: The Heroic Adventures of the John J. Harvey. New York: Putnam Juvenile, 2002. Lewis, Paul Owen. The Jupiter Stone. Berkeley: Tricycle Press, 2003. Mitchell, Margaree King. Uncle Jed's Barbershop. New York: Scholastic, 1994. Osofsky, Audrey. Dreamcatcher. New York: Orchard, 1999. Stevens, Janet. Coyote Steals the Blanket. New York: Holiday House, 1993. Tsuchiya, Yukio. Faithful Elephants: A True Story of Animals, People, and War. Boston: Houston Mifflin, 1988. Van Allsburg, Chris. The Polar Express. Boston: Houghton Mifflin, 1985. ---.*The Stranger*. Boston: Houghton Mifflin, 1986. Viorst, Judith. Alexander, Who Used to Be Rich Last Sunday. New York: Alladin, 1988. Wiesner, David. Sector 7. New York: Clarion Books, 1999. Wyeth, Sharon Dennis. Something Beautiful. New York: Random House Children's Books, 1998.

Inferring Feelings Game

The purpose of this activity is to introduce the notion of inferring to children. The activity also helps children clarify feelings. Although designed to work especially well with elementary-aged students, the activity can be easily adapted for working with older students by using more complex emotions. For example, you might use *sad* with primary students, while with middle school students you might choose emotions like *depressed*, *frustrated*, or *envious*.

Steps:

- 1. Create a feelings chart that illustrates facial expressions associated with certain emotions happy, sad, angry, disappointed, frightened, frustrated, and so on. Students can devise the chart with the teacher. Post the chart where students can see it clearly.
- 2. Design cards featuring each of the emotion words. Use one emotion per card.
- 3. Ask for a student volunteer. Select one card and pin it on the volunteer's back. Have the individual turn several times so everyone has an opportunity to see the card. The volunteer does not know which word has been assigned to him or her.
- 4. When teaching the strategy, provide the first few clues until the class gets the hang of the process. Then ask, "Who has a clue for Fred/Freda?"
- 5. Students begin clues with the phrase, "I felt that way when. . ." and complete the sentence with a description of a time when they experienced the emotion written on the card.
- 6. When a half dozen students have shared their clues, ask, "Okay, Fred/Freda, can you infer what the feeling is that's pinned on your back?"
- 7. If the student answers correctly, congratulate the student and ask the student how he or she figured out the answer. As students play this game more frequently, they clarify their own feelings and also learn to make better inferences.

Example:



I felt that way when...

- my cat got run over.
- my brother hit me with a stick.
- I couldn't go to the movies.
- I dropped grape jelly on my best sweater, and my sweater stained.

Sources:

Harvey, Stephanie and Anne Goudvis. Strategies That Work. Portland, ME: Stenhouse, 2000

Allington, Richard L. "The Schools We Have. The Schools We Need." *The Reading Teacher* 48 (1994): 14-29.

Pairs Read: Read to Analyze

Paired reading is used in a variety of ways by teachers at all grade levels and content areas. When helping students develop their inference skills, teachers use the Pairs Read strategy to analyze text. No matter the ultimate goal of paired reading, the process used tends to follow a similar pattern: students work in pairs to study and create meaning from a block of text.

Steps:

- 1. Select a text selection for students to read in pairs.
- 2. One student is the reader/responder while the other student takes on a coaching role.
- 3. Each student silently reads the first paragraph.
- 4. Allow students to discuss difficult ideas as they read.
- 5. After reading, the reader/responder summarizes the paragraph by stating the main idea. The coaching partner asks what author Rachel Billmeyer calls clarifying, probing, and inferential questions (See Asking Inferential Questions, page 11).
- 6. Students change roles and silently read the next text excerpt. Again, the reader/responder summarizes the main idea while the coaching partner asks probing questions. The students continue the process until the reading selection has been completed.
- 7. Once the selection has been completed, ask students to work cooperatively to create the main idea for the entire selection.



Source:

Billmeyer, Rachel. *Strategies to Engage the Mind of the Learner: Building Strategic Readers*. Omaha: Rachel & Associates, 2003, 81-82.

Asking Inferential Questions: Solving the Mystery

eacher says, "Ask questions while you read." Student says, "What do ya mean, ask questions? I don't have any questions. I don't get it." Because most teachers are skilled readers, we frequently forget that questions don't come naturally. Struggling students and students who lack the ability to make inferences, often have trouble coming up with questions. Since they are focusing all of their attention on creating meaning from a difficult text, they forget to pay attention to the thoughts crossing their minds. As a result, it is necessary for teachers to show students how to create questions and to understand what their minds are doing as they consider ideas for questions.

Steps:

- 1. Provide students with author Rachel Billmeyer's following When I Question list from Strategies to Engage the Mind of the Learner. Explain to students that the list details the processes the mind undergoes as it formulates questions.
- 2. Select a text and model or role play the process for students by showing them what you might do if you were trying to look for different outcomes in a text.
- 3. When teaching the strategy, select a piece of high-interest text and assign pairs of students a verb to practice as they read the text. For example, Mystery Net (http://www.mysterynet.com) provides online mysteries for students to read and solve. The site includes specific mysteries written for younger readers.
 - A pair of students assigned **search**, would read the mystery specifically searching for clues or details that might help them solve the problem.
 - Students assigned the word **doubt**, might look for reasons to doubt the guilt or innocence of different characters.
- 4. Allow students to play with the process and have fun with words. The goal is to teach them to question the obvious and look beyond the details provided by the author so they can draw conclusions. The process is more important to their learning at this point than coming up with the right solution.
- 5. Rather than looking for a right answer, ask students to show what they might do or how they might behave if they were:
 - quibbling about the meaning of a complicated text;
 - doubting what the author was trying to say;
 - exploring the possible solutions to a problem presented in the story;

- inquiring about what might happen next.

When I question, I:

- search challenge doubt inquire • seek information •
- ask quarrel with quibble • investigate examine •
 - explore
- Additionally, Billmeyer suggests that young readers learning how to make inferences should ask themselves the following questions as they read:
 - What questions do I have about the topic?
 - What was I thinking as I read the material?
 - What was the big idea from this story/passage?
- What did the author mean. . .?

probe

dispute

• What clues from the story/passage help me understand the meaning?

Sources:

Billmeyer, Rachel. Strategies to Engage the Mind of the Learner: Building Strategic Learners. Omaha: Rachel & Associates, 2003, 100-101.

Learning with Mysteries: The Fun Way to Learn in the Classroom. Mystery Net: The Online Mystery Network. 14 January 2006 < http://www.mysterynet.com/learn/>.

Preszler, June. TIE Education Specialist and Reading Consultant.

11

Five-Minute Skill Builders

H elp students make inferring a habit of mind by quick and easy—maybe even fun—practice. Five-Minute Skill Builders encourage students to practice their skills at making inferences. These activities turn inference making into game playing. While students are enjoying themselves, they are also developing and honing their skills in making inferences.

Skill Builder Options:

- 1. Each day, read a short passage out loud using the Think-Aloud (See *On Target: Reading Strategies to Guide Learning, page 12*) to share your inferences. Have students decide what kinds of inferences you are making. (Reference the 13-point list on the following page.) The selections can be short passages from a literature book, a magazine, or a novel you are reading. Author Kylene Beers recommends *Two Minute Mysteries* by Donald Sobol and *Five Minute Mysteries* and *Even More Five Minute Mysteries* by Ken Weber. Make sure your selection offers opportunities for drawing inferences.
- 2. Cut out cartoons from a newspaper and put them onto transparencies or a PowerPoint. Read the words aloud, and then Think-Aloud the inferences you make in order to make life connections with the cartoon. Encourage students to cut out their own cartoons and bring them to school. You might also ask students to bring in cartoons they don't understand. This activity spurs a discussion on how inferencing doesn't work if a person doesn't have the right background information. Students usually bring political cartoons for this extended activity.
- 3. Show students bumper stickers or signs and have students write what goes on in their heads as they read as opposed to the text that actually appears on the bumper sticker. Students should be able to state the author's implied meaning as opposed to the literal meaning. Students can refer to the list of inferences and identify which kind of inference they made. Below are bumper sticker examples:
 - The early bird gets the worm, but the second mouse gets the cheese.
 - Wear short sleeves. Support your right to bare arms.
 - Reality is for people with no imagination.
 - We have enough youth. How about a fountain of smart?
 - The more people I meet, the more I like my dog.
- 4. Pull some passages from your text and then put them on overhead transparencies and perform a "Harry Potter" magic trick on them. As you read the text and Think-Aloud your inferences, mark up the passage to link the clues that helped you **infer** the meaning. Link pronouns to their related nouns. Link context that helped define unknown words. Show how you added details to help you picture events described in your passage.

Sources:

Beers, Kylene. When Kids Can't Read: What Teachers Can Do: A Guide for Teachers 6-12. Portsmouth, NH: Heinemann, 2003, 69-72.

Weaver, Constance, and Lorraine Gillmeister-Krause, Grace Vento-Zogby. Creating Support for Effective Literacy Education: Workshop Materials and Handouts. Portsmouth, NH: Heinemann, 1997.

Inferences That Skilled Readers Make

n When Kids Can't Read, What Teachers Can Do, author Kylene Beers identifies 13 types of I inferences that skilled readers make as they read. She recommends that teachers and students add to the list as they monitor their reading.

- 1. Recognize pronoun antecedents
- 2. Use context clues to figure out the meanings of unknown words
- 3. Understand the grammatical role of unknown words
- 4. Recognize character tone
- 5. Identify the beliefs, personalities, and motivations of characters
- 6. Understand character relationships
- 7. Provide setting details
- 8. Provide explanations for events and ideas in the text
- 9. Offer details or their own explanations of events in the text
- 10. Understand the author's point of view

expect her to make the

basket.

- 11. Recognize the author's bias
- 12. Relate the text to events in their own lives
- 13. Construct conclusions based from the facts in the text

Skilled Reader Example:



Source:

Beers, Kylene. When Kids Can't Read, What Teachers Can Do: A Guide for Teachers 6-12. Portsmouth, NH: Heinemann, 2003, 63-65.

the game!

Show but Don't Tell

When it comes to making inferences, students tend to be more successful if they can recognize that inferring is linked to hunting down clues and finding solutions. Jeff Zweirs, author of *Building Reading Comprehension Habits in Grades 6-12*, suggests the following activity to give students much-needed practice in using clues to find meaning.

Steps:

- 1. Bring interesting objects into the classroom. Look for objects that would not be part of a student's daily life. For example, students have probably gone to the dentist, but they might not recognize some of the medical tools a dental hygienist would use.
- 2. Show the object and have students think silently about what the object is and what it might be used for.
- 3. Have students work in pairs to discuss their inferences.
- 4. Share as a class.
- 5. Use a two-column chart. Label columns as Guesses and Reasons for Guesses. (An example template is provided on the following page.)
- 6. Add a related item. For example, provide students with another item that might be found in a dentist's office. Have students use the new clue to make another guess as to what the items are used for and who might use the items.
- 7. As students guess, remember to ask them to justify their guesses. What about this item makes them think it is used for a certain purpose? Remind students that the process they use to draw conclusions is a process called inferring.



Source:

Zwiers, Jeff. Building Reading Comprehension Habits in Grades 6-12. Newark, DE: International Reading Association, 2004, 93.

Show but Don't Tell Template

Guesses	Reasons for Guesses
Ss	hh!
No Ta	lking!

Observe to Infer

When students make observations, they look at the details and the factual information provided in a text. When they make inferences, they combine their observations with their own background knowledge and experiences to create new meaning. One way to help students become skilled at the process of making inferences is through the use of photographs or pieces of art.



Observations = details, factual information, non-debatable

Inferences = conclusions drawn from factual information that could include experiences, images, words, numbers; plausible based upon careful thought and knowledge about the world; directly connect to the observations of facts and details

Steps:

- 1. Select an appropriate piece of art or photograph. Before students work independently, they should practice the strategy in cooperative learning groups or pairs.
- 2. Ask students to observe the details of the picture. What can they see? Details are not to be argued. They either exist or they don't. Students record details on the first column of the Observe to Infer Chart (page 17).
- 3. After they've recorded details, students should make inferences and write them in the second column.
- 4. Share inferences with other students explaining why they made the inferences. At this stage, it is important that students can identify how the inference is directly connected to the details they observed.
- 5. As students become more skilled in the process, move from photographs and art to newspaper and magazine articles, excerpts from literary works, and content area textbook readings.

Source Drawing Inferences: Observations and Inferences. 1999. 14 Jan. 2006. http://home.comcast.net/~lukeythetruck/djole/SchoolPage/99/Presentations/DrawInfer.htm>.

Observe to Infer Template

Details	Inferences

Making Inferences with Figurative Language

"A key form of inference is interpreting figurative language. Readers must have a strong base of figurative experiences to be able to independently generate figurative ideas. Songs are the best places to start for many students. . . Analogies and fables can work as well."

> Jeff Zwiers, Building Reading Comprehension Habits in Grades 6-23, 83

Wherever it is encountered, students seem to find it difficult to comprehend. "This is dumb!" is frequently heard in the classroom as students struggle to figure out what the author means.

Although figurative language doesn't necessarily cause students to make inferences, the ability to infer does help students construct meaning from the figurative language that they find in academic reading and testing situations.



Authors often attempt to describe something by comparing it to an experience common to most people.

- 1. In a simile, the words "like" or "as" serve as a link between the familiar and the unfamiliar. Students can then make a comparison between the two things. For example, in the phrase "She is like a tank," the comparison could show size, mode of movement, temperament, or general shape. The reader would need to consider the surrounding text in order to infer the author's intent.
- 2. In a metaphor, the comparison is made without using the word "like" or "as." "She is a regular tank." The comparison remains the same; it links the familiar to the unfamiliar.
- 3. In personification, the author might write: "The tank huffed and puffed as it crawled up the hill." Tanks don't huff and puff or crawl; people do. However, when making the comparison by giving the vehicle human traits, the author helps the reader understand/infer how the tank moved.

Making Inferences with Figurative Language (cont.)

In testing situations, questions focusing on figurative language usually come in one of two formats.

- Identifying the example of figurative language
- Interpreting the meaning of the figurative language example. In order for readers to comprehend the meaning, they often are required to use context clues and to make inferences based on the surrounding text.

Example: Like a tank, the old woman made her way up the hill, stopping frequently to rest or pick a wildflower. She huffed and puffed, sometimes seeming to crawl.

Example of figurative language: like a tank

Based on the text, the reader can infer that in this case the comparison of woman to tank isn't a comparison of size or shape. Rather the reference refers to how the woman moved—in a manner similar to the slow-going speed of a tank.



Inference Chart

I nference Charts encourage students to formulate questions prior to reading material. The following strategy, adapted from Great Source Education Group's *Reader's Handbook*, reinforces the concept that readers have to figure things out for themselves. Frequently, the figuring requires readers to put "two and two together" and "read between the lines." In other words, readers need to connect what they learned from reading with what they already know. When that happens, readers are able to make inferences.

What I learn from reading + What I already know = What I infer

Steps:

- 1. Provide students with a high interest magazine or newspaper article and an Inference Chart. (page 21).
- 2. Model and practice with students by first looking at the photographs and title of the article. Suggest possible questions and ask students for their ideas. Write the questions in the left-hand column.
- 3. Begin reading the text aloud to students, stopping to ask additional questions as you read. Write the questions in the left-hand column. As you and students continue to read, write answers to your questions when they become apparent. When first modeling the process with a piece of text, provide students with possible questions from each paragraph or section.
- 4. After practicing the strategy together, move students toward working independently.
- 5. Encourage students to create or use an Inference Chart whenever they are reading texts that require them to make predictions and draw conclusions based on the text and their own experience.

Adaptations:

• Instead of writing questions in the left-hand column, write quotes, specific details, or events from the reading. Students then draw conclusions about the meanings of those quotes, details, or events.

Source:

Robb, Laura, and Margaret Ann Richek, Vicki Spandel. *Reader's Handbook: A Student Guide for Reading and Learning.* Wilmington, MA: Great Source Education Group, 2002, 136-37, 447-48, 550.

Inference Chart Template

Questions	My Conclusions

It Says. . . I Say. . . And So

It Says. . .I Say. . .And So is a reading strategy that requires students to consider questions linked to textual material, find information in the text that responds to the question, interpret the text using inference skills, and combine the information from the text and their own thinking to create an answer. The strategy encourages students to realize that when they create meaning, they combine their own ideas and thoughts with evidence and details that they find within a reading selection. The strategy works well with nonfiction and fiction texts.

Steps:

- 1. The strategy works best when a teacher has spent time modeling the process prior to applying it to content material. Consider using a short and familiar text to teach the strategy. Teachers who use the strategy suggest beginning with fairy tales, folk lore, or legends. After modeling the strategy, apply it to a relevant piece of content area text.
- 2. Provide students with a copy of the It Says strategy chart (page 23).
- 3. Brainstorm possible questions based on the topic to be read. (In the beginning, you may choose to actually provide the questions. Sometimes questions found at the end of textbook reading selections are appropriate. As students move toward a more independent level, they should be able to create their own questions.)
- 4. Consider allowing students to work in groups as they learn the strategy.
- 5. Students follow the steps in the sample chart (see below):

QUESTION	IT SAYS	I SAY	AND SO
Read the question.	Find information from the text to help answer each question— paraphrase or quote answers from text.	Consider what you know about the information.	Put together the information from the text with what you know, then answer the question.

It Says Template

FIRES IN THE BLACK HILLS CHART

QUESTION	IT SAYS	I SAY	AND SO
Why are forest fires on the increase in the Black Hills of South Dakota?	For the last several years, precipitation amounts from snowfall have decreased.	Less snowfall could mean dry conditions throughout the Black Hills.	Dry conditions resulting from a decrease in precipitation lead to conditions that might make fires more likely to occur.

IT SAYS. . .I SAY. . .AND SO

QUESTION	IT SAYS	I SAY	AND SO

Sources:

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Questioning the Author (QtA)

Questioning the Author is a strategy that gets students in the habit of thinking about what the author is saying beyond the words that actually appear in the text. The strategy requires students to consider the author's intent. Questioning the Author is similar to, but slightly more demanding of students, than the Inference Chart strategy, pages 20 and 21.

While the strategy does increase a student's inferring skills, it also helps students recognize that sometimes a text is difficult to comprehend simply because the author did not provide the necessary information needed for readers. McKeown, Beck, and Worthy found that students become more successful readers when they realize that their inability to understand a text may be linked to the author's flaws as a writer. Instead of looking at themselves as failed readers, students begin to approach text with what McKeown, Beck, and Worthy define as the "reviser's eye." As a result, the students infer meanings and actively make text more understandable.

Once again, this strategy should be modeled by the teacher, then practiced by students in pairs or groups before students independently tackle the strategy.

Steps:

- 1. Select text for students to read. Consider modeling the strategy first with a newspaper clipping or magazine article prior to applying the strategy to content curriculum. Raymond Jones, creator of Reading Quest strategies, provides a sample practice text at the following web site: http://curry.edschool.virginia.edu/go/readquest/strat/qta.html
- 2. Begin with five basic questions. Students read a selection of text and then answer these questions:
 - What is the author trying to tell you?
 - Why is the author telling you that?
 - Is it said clearly?
 - How might the author have written it more clearly?
 - What would you have wanted to say instead?
- 3. Direct students to fill in the template. Share and discuss student responses and differing conclusions among the readers.

Questioning the Author Template

Adaptations:

- Keep the text selections small. Do not try to cover too much text with this strategy. Consider chunking a larger piece of text and assign different sections for students to Question the Author.
- List the QtA questions on a poster in a the classroom.
- As students become more skilled at making inferences, consider adding the following questions, suggested by author Doug Buehl in *Classroom Strategies for Interactive Learning*.
 - Does this follow with what the author said before?
 - What does the author take for granted that we already know?
 - Did the author tell us why?
 - Why do you think the author included this information?

TEXT SELECTION	
What is the author trying to tell you?	
Why is the author telling you that?	
Is it said clearly?	
How might the author have written it more clearly?	
What would you have wanted to say instead?	

(http://curry.edschool.virginia.edu/go/readquest/strat/qta.html)

Sources:

Buehl, Doug. *Classroom Strategies for Interactive Learning*. Newark, DE: IRA, 2001, 112-113. Jones, Raymond. "Questioning the Author." 7 Nov. 2001. ReadingQuest.org. 14 Jan. 2006

- < http://curry.edschool.virginia.edu/go/readquest/strat/qta.html>.
- McKeown, M.G. and I.L. Beck and M.J. Worthy. "Grappling with Text Ideas: Questioning the Author. *The Reading Teacher* 47 (1993): 560-66.

Inferences through Advertising

Using magazine and newspaper ads, this activity requires students to analyze the inferences businesses expect us to make about their products. By using media to practice inference skills, students become better prepared to transfer these skills to academic reading in the classroom and on standardized tests.

Steps:

- 1. Choose an ad.
- 2. Show the students just the clever saying on an overhead, without the picture.
- 3. Ask students what they think it means.
- 4. Show the full ad with the **picture** and ask students its meaning.
- 5. Ask students what **background knowledge** the reader has to know in order to understand the ad or to think it is clever.
- 6. Ask why the writers thought they could sell their product this way.
- 7. Make a chart with three boxes on the left side and one box on the right. Illustrate how the three components of: Saying, Picture, and Background Knowledge all feed into the final INFERENCE that the ad designers expect us to make.
- 8. Once students have practiced the strategy, ask them to select their own ads and then lead cooperative learning groups in the process.

Source:

Zwiers, Jeff. Building Reading Comprehension Habits in Grades 6-12. Newark, DE: International Reading Association, 2004, 89-90.

Inferences through Advertising Template Inferences through **Advertising** The Saying The The Picture Inference Background Knowledge Inferences through **Advertising**

Connections to Previous On Target Books

The ability to make inferences is a skill exhibited by good readers. As a result, several of the strategies addressed in previous *On Target* booklets encouraged students to practice making inferences. Listed below are strategies requiring inferential thinking that appeared in previous booklets.

On Target: Strategies to Guide Student Learning Think-Alouds, Pages 12-13

Teachers share the thoughts that go through their heads as they read. By modeling the process, instructors help students learn how to formulate questions and extend their thinking.

Save the Last Word for Me, Page 23

Save the Last Word for Me provides a framework for students to review materials. The discussion encourages students to share ideas and opinions—thus promoting inferential thinking because students go beyond the literal text.

On Target: Strategies to Improve Student Test Scores Question-Answer Relationships (QAR), Pages 15-17

Question – Answer Relationships (QAR) increase student comprehension. Students recognize different types of questions posed by a text—typically, questions are either "in my head" or "in the book." Since the strategy helps students take information gleaned from the text and connect it with their own life experiences, the process increases the students' abilities to make inferences.

Solving Word Problems, Page 21

When students solve world problems they must ask themselves three questions: What am I being asked to find? What information do I need in order to find the answer? What clues or information is given within the problem to help me solve it? When students look for clues and use them to find a solution, students are also making inferences.

On Target: Strategies to Help Struggling Readers

Book Cover Predictions, Page 9

Book Cover Predictions requires students to make predictions based on the cover of a book. When students make predictions they ask questions and base answers on clues in the picture or illustration.

Main Idea Record, Pages 12-13

The Main Idea Record teaches students how to determine the main idea of a section, to make predictions, and to evaluate their predictions—all skills closely linked to inferential thinking.

Reciprocal Teaching, Page 17

Reciprocal Teaching provides students with an opportunity to discuss texts and to hone their skills as readers. The process includes four steps: summarizing, questioning, clarifying, and predicting.

Websites to Explore

Baltimore County Public Schools: Analyzing, Evaluating, Interpreting, Inferring http://www.bcps.org/offices/lis/models/tips/analyzing.htm

Best Practices Reading Strategies from Annenburg Media and Journey North http://www.learner.org/jnorth/tm/ReadStrats_20Best.html

Eagle Crest Kids Read for Meaning http://www.stvrain.k12.co.us/ecel/read_for_meaning.html

English Companion with Educator/Author Jim Burke http://www.englishcompanion.com

Florida Online Reading Professional Development http://www.itrc.ucf.edu/forpd/strategies/archive.html

Learning with Mysteries: The Fun Way to Learn in the Classroom. Mystery Net: The Online Mystery Network http://www.mysterynet.com/learn/

Oswego City School District http://www.oswego.org/testprep/ela4/o/makinginferencel.cfm

Powerhouse Reading Strategies http://www.ncwiseowl.org/kscope/techknowpark/Tutorial/ReadingStratgs.html

Quentin Blake's Books http://www.quentinblake.com

Read*Write*Think (Sponsored by the International Reading Assn., National Council of Teachers of English and MarcoPolo) http://www.readwritethink.org/

Reading Lady http://www.readinglady.com

Reading Strategies: An Internet Hotlist on Reading Strategies http://www.kn.pacbell.com/wired/fil/pages/listreadingst2.html

Reading Strategies: Scaffolding Students' Interactions with Texts http://www.greece.k12.ny.us/instruction/ela/6-12/reading/Reading%20Strategies/ reading%20strategies%20index.htm

Reading Workshop: Reading Is a Strategic Thinking Process—Inferring http://www.springfield.k12.il.us/resources/languagearts/readingwriting/readinfer.html

Technology Integration for *Strategies that Work* http://www.mayer.cps.k12.il.us/Strategies_that_Work/STW.htm

Books for Further Reading

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- Harvey, Stephanie, and Anne Goudvis. *Strategies to Improve Student Comprehension and Motivation*. Portland, ME: Stenhouse, 2000.
- Hoyt, Linda. *Make It Real: Strategies for Success with Informational Texts*. Portsmouth, NH: Heinemann, 2002.
- Keene, Elvin Oliver, and Susan Zimmerman. *Mosaic of Thought*. Portsmouth, NH: Heinemann, 1997.
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- Lenski, Susan Davis., and Mary Ann Wham, Jerry L. Johns. *Reading and Learning Strategies for Middle and High School Students*. Dubuque, IO: Kendall/Hunt, 1999.

For Further Reading (cont.)

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- Miller, Wilma H. *Ready to Use Activities and Materials for Improving Content Reading Skills:* San Francisco, CA. Jossey and Bass, 1999.
- Nickelsen, LeAnn, and Sarah Glasscock. Comprehension Mini-Lessons: Inferences and Cause and Effect. New York: Scholastic Teaching Resources, 2004.
- Oczkus, Lori D. Reciprocal Teaching At Work: Strategies for Improving Reading Comprehension. Newark, DE: IRA, 2003.
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ESA Region 6

Serving schools in southcentral South Dakota...

Agar-Blunt-Onida Harold Lyman Pierre Stanley County **Education Specialist:** Craig DeTample cdetample@tie.net 605-224-6287

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Bennett County Todd County (11 schools) Education Specialist: Lucy Atwood latwood@tcsdk12.org 605-856-2151

Kadoka Education Specialist: Julie Mathiesen jmathiesen@tie.net 605-394-1876

Program Director

Sandra Gaspar sgaspar@tie.net 605-394-1876

Co-Director Micky Wienk mwienk@tie.net 605-394-1876

Executive Director

Randy Morris 605-347-4467



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Serving schools in the Black Hills area of South Dakota...

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Belle Fourche Lead-Deadwood Newell Spearfish **Education Specialist:** Pam Lange plange@tie.net 605-394-1876

Haakon Meade Education Specialist: Micky Wienk mwienk@tie.net 605-394-1876

Central Hills Area

Douglas Rapid City Education Specialist: June Preszler jpreszler@tie.net 605-394-1876

Southern Hills Area

Custer Edgemont Elk Mountain Hill City Hot Springs Oelrichs **Education Specialist:** Debbie O'Doan dodoan@tie.net 605-394-1876

Shannon County Education Specialist: Sandy Gaspar sgaspar@tie.net 605-394-1876

New Underwood Shannon County Wall **Education Specialist:** Julie Mathiesen jmathiesen@tie.net 605-394-1876

Program Director Sandra Gaspar sgaspar@tie.net 605-394-1876

Executive Director Randy Morris 605-347-4467