

9-1-2007

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Recommended Citation

Wallace, R., Pearman, C., Hail, C., & Hurst, B. (2007). Writing for Comprehension. *Reading Horizons*, 48 (1). Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol48/iss1/5

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Writing for Comprehension

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Abstract

Many educators continue to treat reading and writing as separate subjects. In response to this observation, the authors offer four research-based writing strategies that teachers can use to improve student reading comprehension through writing. The writing strategies—*About/Point*, *Cubing*, *Four Square Graphic Organizer*, and *Read, Respond, Revisit, Discuss*—reinforce reading comprehension by helping students strengthen their skills at summarizing, thinking in-depth from multiple perspectives, activating and organizing numerous thoughts, and creating interest through meaningful social interactions.

Reading and writing have been considered interrelated for many years. Tierney and Pearson (1983) considered both reading and writing as analogous processes of composing. Although reading and writing are strongly interconnected, they are frequently treated as discrete subjects. This separation may be due to an overemphasis in many classrooms on process writing, or learning to write, rather than writing to learn (Frey & Fisher, 2007). Learning to write encompasses the learning the skills of letter formation, encoding, sentence and paragraph construction, as well as, knowledge of the stages of writing that culminates in a finished product that may or may not be linked to literature or content knowledge. Writing to learn is writing for comprehension and provides students with an opportunity to recall, clarify, and question what they have read, and it provides them with a venue to voice questions or curiosities that still remain (Knipper & Duggan, 2006). In a meta-analysis conducted by Bangert-Drowns, Hurley, and Wilkinson (2004), it was found that writing to learn increased both content learning and overall student achievement in elementary classrooms and increased students' metacognition. These findings are consistent with the National Research Council's (2005) recommendations that teachers need to activate prior knowledge, teach both factual and conceptual knowledge, and teach for metacognition.

It has been well established that using writing in conjunction with reading strengthens student comprehension. Fordham, Wellman, and Sandmann (2002) state "Combining writing with reading enhances comprehension, because the two are reciprocal processes. Considering a topic under study and then writing about it requires deeper processing than reading alone entails" (p. 151). Brandenburg (2002) noted that when she began requiring her math students to complete a variety of writing activities in her math class, the strength of their writing about a topic and deeply processing its information improved. She found "by forcing them to demonstrate their comprehension through writing, they learned to pinpoint any confusion, compare and contrast mathematical methods, and ultimately deepened their understanding and retention" (p. 68). In addition, she gained insight into the process of how students learn mathematics that she never would have gotten without the writing assignments. Additionally, Edens and Potter (2003) found that elementary students who were allowed to draw explanatory illustrations and then write about them reached a better understanding of the law of conservation of energy than students who were not given the writing component.

Aukerman (2006) advised that “students can find their way to text-based critical thinking when an astute teacher” provides time for exploring texts through supporting interpretations (p. 37). “Interpreting a text should involve making decisions about how different aspects of the text fit (or fail to fit) with the hypotheses a reader has begun to generate” (p. 37). Writing about texts or in conjunction with reading can help readers “unpack” meaning and solidify their interpretations or comprehension. Gammill (2006) also contends that writing is “an excellent tool for building reading comprehension” (p. 754).

The following four instructional strategies—*About/Point*, *Cubing*, *Four Square Graphic Organizer*, and *Read, Respond, Revisit, Discuss*—use writing as part of the reading process to help students connect with text and strengthen their comprehension whether they are working with fiction, nonfiction, or content area textbooks. *About/Point* is a summarizing strategy that helps students distinguish between main ideas and supporting details while *Cubing* is a strategy that encourages readers to view information from different perspectives to aid in increasing comprehension. The use of the *Four Square Graphic Organizer* assists students in organizing information and making connections across the curriculum, and the strategy *Read, Respond, Revisit, Discuss* integrates reading, writing, and social interaction to foster comprehension. Each strategy discussed begins with a comprehension connection and then offers steps and examples for implementing the strategy. Comprehension strategies such as these encourage student interaction and engage students in deeper reading to create more connected learners (Fordham et al., 2002).

About/Point: A Summarizing Strategy

Writing summaries improves students’ reading comprehension (Olson & Gee, 1991; Rinehart, Stahl, & Erickson, 1986). Summarizing is often defined as a writing process whereby readers condense a larger section of text into a smaller one without using any personal elaborations (Winograd, 1984). Summarizing needs to be emphasized in the curriculum for several reasons. First, summarizing involves thinking and writing processes that have utilitarian value across grade levels and content areas. Learning to write summaries also encourages readers to consider the interactive nature of reading by requiring readers to separate important from unimportant information (Dole, Duffy, Roehler, & Pearson, 1991). Likewise, Rinehart et al. (1986) found that teaching students to

write summaries helps them remember important text information, attend more closely to the material being read, and improves study skills.

Second, learning to summarize helps readers paraphrase written material from the viewpoint of the author yet using their own language. Winograd (1984) found both strategic and struggling readers understood the idea that summarization is based on condensing text. While struggling readers chose information based on what was of personal interest, strategic readers chose information based on what they perceived the author thought was important. Strategic readers are also better able to judge the importance of the material being read as they learn to identify and organize important information. Summarization training may lead to significant improvements in students' comprehension because it requires them to pay more attention to the text (Rinehart et al., 1986). Summarizing can be taught, practiced, and improved upon when a school makes it an important curricular concern (Dole et al. 1991; Olson & Gee, 1991).

In the following activity, students work in pairs to paraphrase the given material. An *About/Point* chart (Morgan, Meeks, Schollaert, & Paul, 1986) is used to help students condense and organize information from the text. Students write on sticky notes what the selection is about and what the main points are for each section. These are used as prompts to write a cohesive summary. Instructions for the activity are included in Table One.

Table 1. About/Point Writing Strategy (Morgan, Meeks, Schollaert, & Paul, 1986)

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1. Choose a selection that is at the independent reading level of the students.
 2. Break the passage into sections that reflect a logical summary of events or ideas.
 3. Ask students to read the first designated section, then turn to a partner and discuss it. After the discussion, students write a main idea sentence on a sticky note and place it on that section. Follow this process for each additional designated section.
 4. After the passage is complete, students use the sticky note information to write a summary of the whole selection on an *About/Point* chart.

thinking about topics and information. Students can be taught how to examine different topics using strategies such as cubing, to practice and develop such higher order-thinking skills.

Cubing (Cowan & Cowan, 1980) is a strategy that helps students approach reading and writing from different perspectives. Rather than giving the typical, perfunctory recount of a book or content area chapter, students can learn with the simple roll of a cube from *perspectives* such as compare, associate, analyze, apply, evaluate, and satirize. Just as a cube has six sides, students are asked to explore topics using up to six different points of view.

In order to create cubes, select a topic or book that has enough depth to support multiple perspectives. Generate six questions per cube with each question corresponding to a higher-level thinking skill. It is a good idea to keep at least one question, possibly more, opinion-based with no right or wrong answer. Teachers can differentiate an assignment by creating different cubes with questions of varying degrees of difficulty. Cubes leveled by difficulty can be color-coded with the color of the question sheet matching the color of the cube.

Once the questions are crafted, write the name of the perspective and/or the questions directly on the cube. However, if the cube is too small and the questions are difficult to read, it may work better to label the cube with the titles of the perspectives being addressed, and on a separate sheet of paper, coordinate the titles to their corresponding questions. This procedure allows the same cubes to be used several times. Wooden or plastic photo cubes can be purchased at most hobby stores and necessitate making or buying the cubes only once.

Cubing can be used in different ways. It can be used to initiate free writing where students are given three to five minutes to explore each of the six given perspectives. This prewriting activity helps students initially probe a topic, determine what they know, and query what needs to be given further thought and study (Duckart, 2006). Another prewriting use for cubing is, by exploring multiple perspectives, students determine the most interesting slant for an essay or thesis. Cubing can also be used as an assessment tool for teachers to evaluate the degree to which students understand a topic or book. Perspectives contained on the cubes that prove problematic for students can then be developed and discussed as a class. Teachers can also use this as they reflect on what perspectives they are ignoring in the classroom or what stances they, themselves, are not exploring.

Students do not have to respond to all six sides of the cube. Options include rolling the cube and completing the first four sides rolled. Another option is to have three cubes with different questions so students roll each cube and respond to two perspectives from each. For students who are not accustomed to looking at topics from multiple viewpoints, it may be useful for them to work in small groups and roll a cube for one perspective. Each group can then share their thoughts with the entire class. This will expose students to different ways of looking at a topic without the pressure of viewing a topic from multiple perspectives. As mentioned earlier, cubing can be easily manipulated and adapted for differentiating instruction. Some students may respond to all six perspectives, others may be required to look at the topic from four perspectives, and still others from two perspectives.

In Figure 2, an example of a cube and the questions exploring the book *Pink and Say* (1994) by Patricia Polacco is provided. This cube used the perspectives of describing, analyzing, pretending, comparing, listing, and justifying, but other levels could have been used depending on points or perspectives to be emphasized from the book. The questions attached to each perspective were:

DESCRIBE: Describe Moe Bandy's life when she was alone during the war using at *least three sentences with two describing words in each sentence.*

ANALYZE: Analyze the reasons Pink wanted to rejoin the war. If someone asked you why it was important to Pink to return to his unit, what would you say?

PRETEND: Pretend you are in the Forty-eighth Colored Unit (Pink's army unit.) What would your day be like? What chores would you do? What would you eat? How would you travel? What would the fighting be like?

COMPARE: Pink wanted to heal and return to the war. Say was wounded trying to escape from the war and did not want to go back. Compare the two boys' feelings about the war. How would you react?

LIST: List words that describe your feelings as you look at each picture in the story.

JUSTIFY: Pink did not survive being held prisoner at Andersonville. Justify why the author beseeches readers to remember him always.

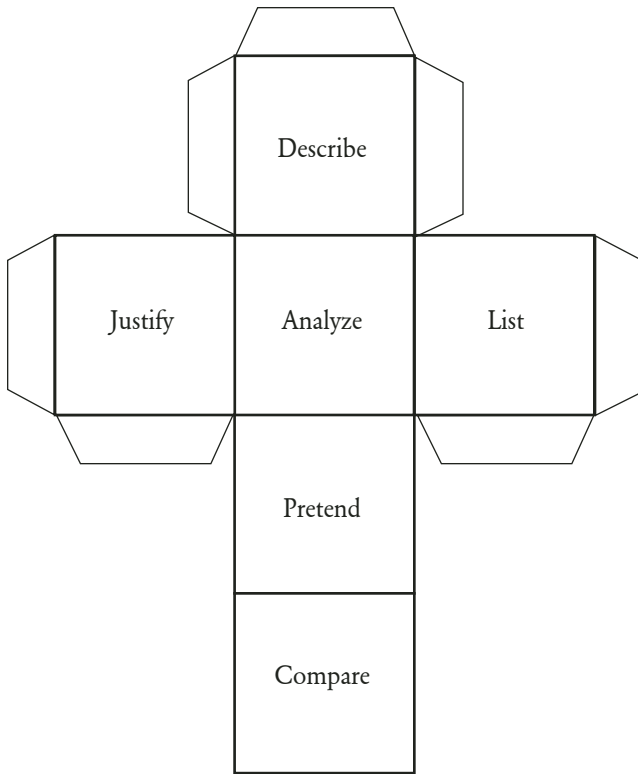


Figure 2. Example Cube

Four Square Graphic Organizer: A Thought Organizing Strategy

Graphic organizers are valuable instructional tools. Simple variations of graphic organizers can expand into rich comprehension aids for all students. However, teachers need to be selective, choosing the graphic organizer to be used based on the objectives for the lesson and needs of their students. Unlike many tools that have just one purpose, graphic organizers are flexible and have endless applications. Because they can be used in various contexts, for differing purposes and at multiple levels, graphic organizers can meet the needs of a wide range of students.

Graphic organizers can be used to get readers and writers to activate and organize their schema by: 1) displaying ideas generated by brainstorming, making connections, taking notes, and targeting specific information; 2) comparing

characters, identifying the setting, or mapping out the plot; 3) helping students organize their thoughts during various stages of writing; and 4) providing a shell for the rough draft of a writing assignment (Gunning, 2003; Roe, Stoodt-Hill, & Burns, 2007; Vacca & Vacca, 2004). Thus, graphic organizers can be used to facilitate learners' comprehension process before, during, and after reading and writing. An example of a graphic organizer that aids in reading comprehension is *Four Square* writing (McMackin & Witherell, 2005).

McMackin and Witherell (2005) encourage teachers to use the four square approach when teaching writing. The four square approach begins with a basic graphic organizer and a central topic (see Figure 3). Teachers or students next select specific criteria for each square. Prompts for each square may change according to ability, task, learning style, or goal. Examples of a modification is given in Figure 4.

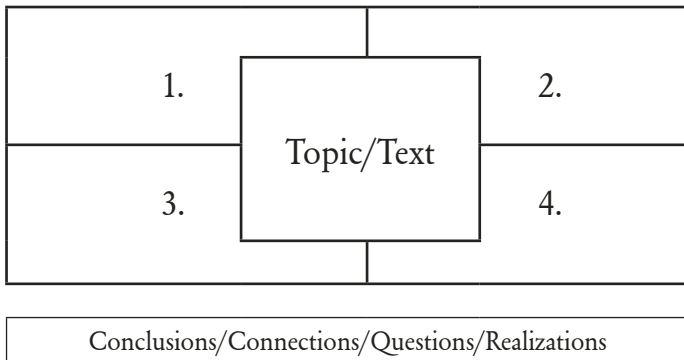


Figure 3. Four Square Writing Graphic Organizer

Four Square writing is a strategy that improves comprehension by using writing to organize and connect thoughts; by helping the writer to generalize thoughts across the curriculum to make meaningful connections between self, world, and other texts; by preparing the student for demand/prompt writing and varied comprehension tasks; and by encouraging meta-cognitive writing with confidence (Tompkins, 2006). Students often find graphic organizers easy to use and supportive in their overall writing and comprehension.

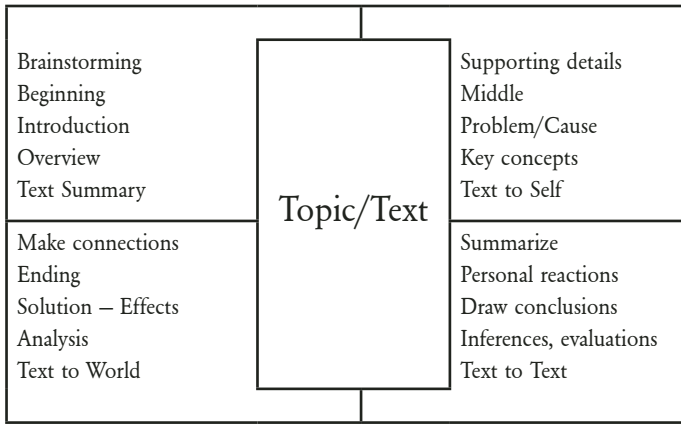


Figure 4. Four Square Writing Variations

A fifth grade class used the four square approach in reviewing the book *Artemis Fowl* by Eoin Colfer (2001). In this example, students used the graphic organizer to develop a character analysis and then convert the graphic into a summary paragraph. This replaced a traditional book report and clearly demonstrated students’ comprehension of the character (see Figure 5).

1. *Introduce the character:* Holly Short – half elf, half leprechaun; hut-brown skin, cropped auburn hair, and hazel eyes; slim with a fiery temper; pointed ears and 3 feet tall; works for LEPrecon under Commander Root; gets into trouble; is the first female officer.
2. *Describe event:* Holly saves Juliet’s life; her Sonix did not work; hit the troll in the head with her heels, troll grabbed her by helmet; tried to butt heads with troll “Valliant undoubtedly, but about as effective as trying to cut down a tree with a feather” (p. 230); hit caused two wires to connect; light blasted and made troll drop Holly; she landed on Butler and said “heal” and then went unconscious. Butler was healed and defeated the troll. Holly was OK.
3. *Relate to your life:* Holly was brave and saved the human. My sister and I were playing outside and the boy across the street came over and took her soccer ball and wouldn’t give it back; I told him to give it back; he said “make me” so I looked him in the eye and said “fine”; I stared him down and he just threw the ball down and left.
4. *Draw conclusions:* Holly had to stand up to the troll to save the humans. I had to stand up to the boy across the street. People have to stand up for what is right sometimes to keep the world OK. It is important to decide when to fight for what is right. Having the courage to do something brave to save someone is not easy, but you make a difference when you do.

Figure 5. Student Example of Writing Using Four Square Graphic Organizer

From this example and the subsequent written summary paragraph, the teacher was able to discern that this student comprehended the essence of story conflict and resolution and was able to make a connection to real life. Although the teacher changed the criteria for each of the four writing blocks to meet her specific learning goals, she made use of the strategy to enhance comprehension.

Using graphic organizers may assist students' writing by giving them a preliminary structure for organizing their thoughts. Teachers should be encouraged to vary their graphic organizers and the ways they use them to make sure all students have the strategies they need to be successful. Just as this teacher modified the *Four Square* strategy, most graphic organizers can also be adapted or converted to support ongoing writing objectives in the classrooms.

Read, Respond, Revisit, Discuss Strategy: An Interactive Journaling Strategy

Another way to increase reading comprehension is by incorporating writing and social interaction. Vacca and Vacca (2004) contend that asking students to write about what they have read improves their comprehension. They state "writing facilitates learning by helping students explore, clarify, and think deeply about the ideas and concepts they encounter in reading" (p. 353).

The *Read, Respond, Revisit, Discuss* strategy (Hurst, Fisk, & Wilson, 2006) helps students increase comprehension by integrating reading, writing, and social interaction. For this strategy, students are assigned a text to read and are instructed to read for what personally interests them rather than read for what might be on a test or to answer questions at the end of the chapter. As students read, they are to look for ideational or informational sentences that are of particular interest to them. Using paper divided in two vertical columns when they read something that draws their interest, they write it along with the page number on the left side of the page. On the right side, they write why or what drew their interest to this particular idea or bit of information. Teachers can set the number of entries each student must find from the text. Three is a common number, but for younger students, one entry may be adequate. Figure 6 is an example of a sixth grade student's learning log over a social studies text.

Learning Log

From the text	My Comments
p. 34 Representative democracy is used when the population is too large for a meeting.	This is like how schools have a school board to make decisions instead of trying to get every single person together for a vote. The elected school board member votes instead of each person.
p. 35 In colonial America, if you did not belong to the right church, you could not vote.	I'm really glad this is not still the way it is in America because where you go to church should not matter about whether or not you get to vote.

Figure 6. Sample Student Learning Log

This type of T-chart learning log is fairly common; yet, having students share the information from their logs adds an important social interaction piece. After all students have completed reading and responding to the text, each student in the class shares one item from his or her learning log. Each student tells the page number of the sentence from the text he or she found interesting, reads that sentence aloud while the rest of the class reads along silently, and then tells what he or she found interesting about it. Students continue to share until each person in the class has had a turn. Because the point of the text reading is to learn the material in the text, the teacher watches for opportunities to add to the discussion to make sure all of the important points in the text are covered. Based on the students' responses to the text, teachers have an idea of how well their students comprehended the text. Harvey and Goudvis (2000) state "The only way we can confidently assess our students' comprehension is when they share their thinking with us" (p. 189).

Lapp, Flood, Ranck-Buhr, Van Dyke, and Spacek (1997) contend "children's reading and writing processes develop through interactions with adults and peers" (p. 9). With this in mind, Hurst (2005) conducted a study of 547 middle and high school students' perceptions of the effectiveness of the *Read*,

Respond, Revisit, and Discuss strategy. Ninety-eight percent of the students reported reading part of the text; 54% read the entire text; 44% read enough to complete the log; and 2% did not read any of the text. Additionally, 72% reported they both understood and remembered the text better when reading for interest rather than for what would be on a test, while 65% reported they gained new perspectives from the class discussions they had not thought of previously.

Classroom teachers administering the strategy for the study offered comments that provided an interesting sidelight to the student responses. One teacher wrote:

I think the strategy makes the students more accountable for their reading. Even when I don't have them do any note taking while reading, I do often have class discussions, and I have noticed that the students are MUCH more likely to participate in class discussions when they've done some writing beforehand. I think having a paper with a prewritten comment adds to the students' comfort levels, while giving them a list of ideas to talk about during the class discussion.

The *Read, Respond, Revisit, Discuss* strategy encourages students to learn from text and from each other by combining the communication modes of reading, writing, talking, and listening.

Conclusion

The connection between reading and writing is strong and well accepted by many educators (Routman, 2003; Tierney & Pearson, 1983). Reading and writing need to be integrated to improve the quality of each. Writing summaries, examining texts from multiple perspectives, utilizing graphic organizers, and making use of discussion journals are valuable tools for linking reading and writing to strengthen student comprehension. Gammill (2006) states "Writing to learn, to build comprehension and understanding, is a method any teacher in any area can implement and use successfully with students" (p. 755). The four writing strategies discussed in this article are ones teachers can use in any subject area to help their students gain more from texts and help them build their comprehension skills.

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