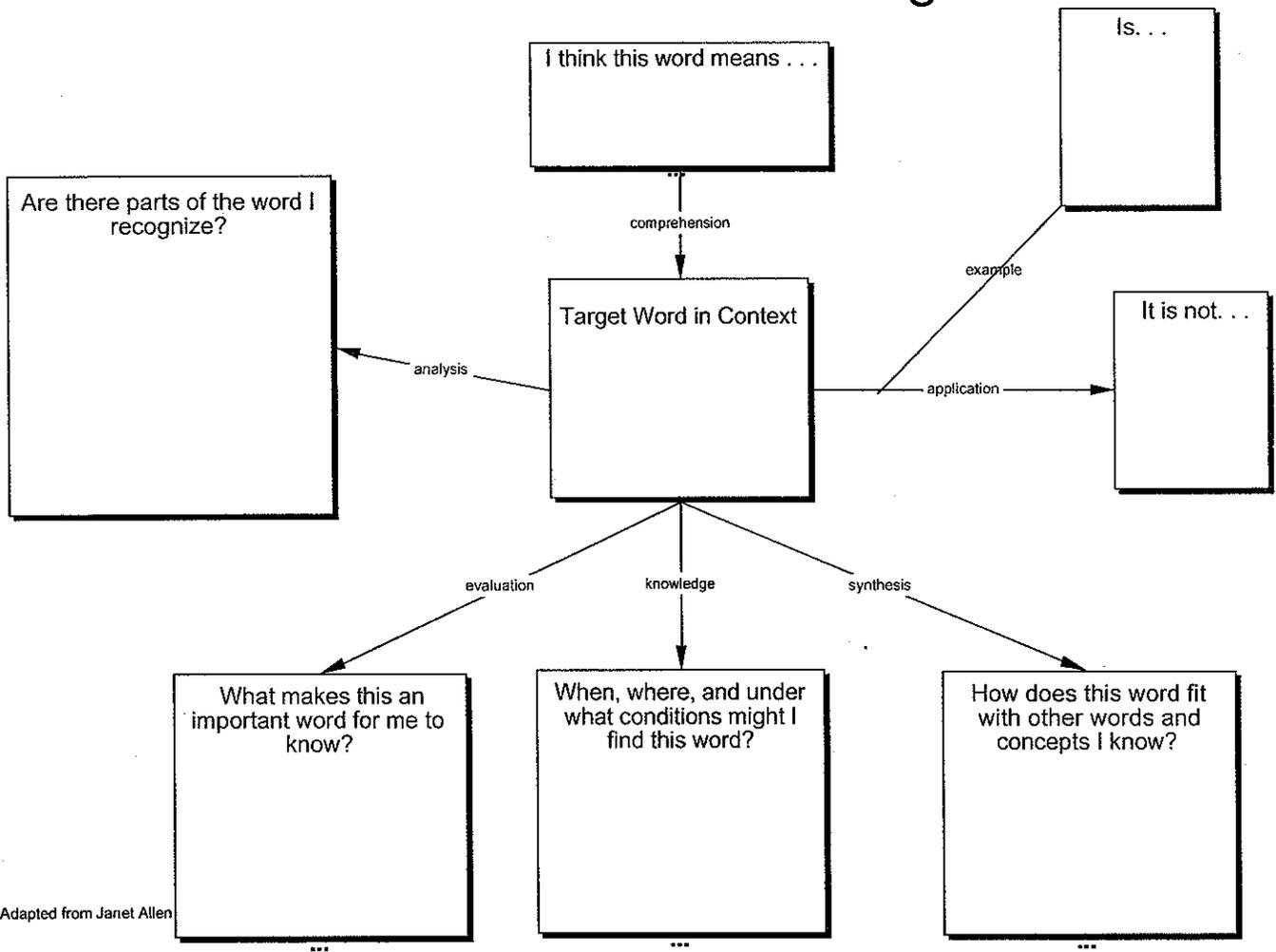


Note-Take Using Both Sides of the Brain

Words or Phrases: Important Ideas	Visuals: Pictures/Symbols/Diagram
Summary:	

Word Questioning



Question Answer Relationships

In the Book QAR's

In My Head QAR's

RIGHT THERE

Answer is in the story or book.

AUTHOR & YOU

Answer is NOT in the book or story.

THINK & SEARCH

Put it together.

ON MY OWN

Don't even have to read the story.

I. HAVE STUDENTS WRITE ABOUT THE TEXT THEY READ

Average Weighted Effect Size = 0.40 Published Standardized Norm-Referenced Tests (Based on 11 Studies)

Average Weighted Effect Size = 0.51 Researcher-Designed Tests (Based on 50 Studies)

Comprehending a text involves actively creating meaning by building relationships among ideas in text, and between the text and one's knowledge, beliefs, and experiences (Wittrock, 1990). Having students write about a text should enhance reading comprehension because it affords greater opportunities to think about ideas in a text, requires them to organize and integrate those ideas into a coherent whole, fosters explicitness, facilitates reflection, encourages personal involvement with texts, and involves students transforming ideas into their own words (Applebee, 1984; Emig, 1977; Klein, 1999; Smith, 1988; Stotsky, 1982). In short, writing about a text should enhance comprehension because it provides students with a tool for visibly and permanently recording, connecting, analyzing, personalizing, and manipulating key ideas in text.

The evidence shows that having students write about the material they read *does* enhance their reading abilities. In fact, fifty-seven out of sixty-one outcomes (93 percent) were positive, indicating a consistent and positive effect for writing about what is read. The impact of writing about reading applied broadly across different levels of schooling, as students participating in this research were in grades 2–12, with the majority in middle or high school. These positive effects were evident when students wrote about text in science and social studies as well as in English (60 percent of comparisons involved these disciplines; see Appendix B).

These effect sizes compared favorably with effects obtained by other researchers examining the impact of specific reading approaches, such as reading programs at the secondary level, reciprocal teaching (a popular method for teaching comprehension), and vocabulary instruction. The effect size for writing about text that was read (0.40) exceeded each of these effects, providing additional validation of its effectiveness as a tool for improving students' reading comprehension.

Writing about read texts was also an effective activity for lower-achieving students. In twelve studies involving such students, the average weighted effect size for writing about a text was 0.63. However, the average weighted effect size for writing about text activities was not greater than zero when lower-achieving students were not explicitly taught how to use them. This was not the case when such instruction was provided, as was true in the other nine studies. Although these findings must be viewed cautiously due to the small number of studies, they suggest that having lower-achieving students write about text without teaching them how to do so may not be effective. Our findings are consistent with findings from other reviews that explicit instruction is an important ingredient in the successful teaching of literacy practices (e.g., Graham and Perin, 2007a; NICHD, 2000).

Writing about a text proved to be better than just reading it, reading and rereading it, reading and studying it, reading and discussing it, and receiving reading instruction. These above-mentioned reading activities were undertaken 87 percent of the time by students in the control conditions.

The average weighted effect sizes for writing about text read versus these control conditions was positive and significant (0.35 for published standardized norm-referenced tests in nine studies and 0.49 for researcher-designed ones in forty-four studies).

We next consider how different types of writing about reading activities influence students' comprehension of text. These analyses are based on the findings from the sixty-one studies above.

Have Students Respond to a Text (Writing Personal Reactions, Analyzing and Interpreting the Text)

Average Weighted Effect Size = 0.77 Researcher-Designed Tests (Based on 9 Studies)

Writing an extended response to material involves either a personal reaction to the text or analysis and interpretation of it. The former includes writing a personal response to narrative material read or writing about a personal experience related to it. Analysis and interpretation activities, in contrast, focus on writing an analysis of the characters in a novel, writing a paper showing how to apply material that was read, composing a letter to another student explaining how to play a game described in a text, and analyzing a text in writing to develop a particular point of view. Newer and better understandings of textual material are likely to occur when students write about text in extended ways involving analysis, interpretation, or personalization (Langer and Applebee, 1987).

Our review of the data shows that extended writing has a strong and consistently positive impact on reading comprehension. All nine of the comparisons produced a positive outcome. Extended writing produced greater comprehension gains than simply reading the text, reading and rereading it, reading and studying it, reading and discussing it, and receiving reading instruction. These reading activities served as control conditions in all nine studies. (Note that in contrast to the other

EXTENDED WRITING: EXAMPLES

With **guided journal writing** students respond to text by answering open-ended questions about it in writing. For example, students might be asked to analyze why they think characters acted as they did and indicate what they would do in the same situation.

Source: Wong, Kupens, Jamieson, Keller, and Cull-Hewitt (2002).

Students might also be asked to complete an **analytic essay** about the material they are reading. For instance, after reading about the history of the industrial revolution, students might be asked to write an essay in which they identify the three most important reasons for industrial growth during the nineteenth and twentieth centuries and explain the reasons for each of their choices.

Source: Langer and Applebee (1987).

writing about reading activities studied in this review, students were not expressly taught how to write extended responses. Finally, for writing a personal response to text, students applied this procedure over a three- to fourth-month period in several studies.)

Have Students Write Summaries of a Text

Average Weighted Effect Size = 0.52 Researcher-Designed Tests (Based on 19 Studies)

Transforming a mental summary of text into writing requires additional thought about the essence of the material, and the permanence of writing creates an external record of this synopsis that can be readily critiqued and reworked. As a result, summary writing seems likely to improve comprehension of the material being summarized.

Summary writing practices studied ranged from writing a synopsis with little to no guidance (e.g., writing a one-sentence summary) to the use of a variety of different guided summarizing strategies such as writing a summary of text using a set of rules or steps; developing a written outline of text and converting it to a summary; locating the main idea in each paragraph and summarizing it; and creating a written/graphic organizer of important information and converting it to a summary.

For students in grades 3–12, writing summaries about text showed a consistently positive impact on reading comprehension. Seventeen of the nineteen comparisons (89 percent) produced a positive outcome. While summary writing significantly improved middle and high school students' comprehension of text (average weighted effect size = 0.33 based on eleven studies), it had an even stronger effect on elementary students' comprehension (average weighted effect size = 0.79 based on four studies).

SUMMARY WRITING EXAMPLES

Students are directly taught rules for how to write a summary of material read. This can involve teaching them how to write a summary of a paragraph using the following operations:

- 1) identify or select the main information;
- 2) delete trivial information;
- 3) delete redundant information; and
- 4) write a short synopsis of the main and supporting information for each paragraph.

In teaching this strategy, the teacher first explains each step and its purposes. Use of the strategy is then modeled, and students practice applying it, receiving teacher help and assistance as needed.

Source: Rinehart, Stahl, and Erickson (1986).

A different summary writing method focuses on the summarization of longer text. Students begin by creating a skeleton outline, starting with a thesis statement for the passage. Next, they generate main idea subheadings for each section of the text, and add two or three important details for each main idea. They then convert their outline into a written summary of the whole text.

Source: Taylor and Beach (1984).

Writing summaries about a text proved to be better than simply reading it, reading and rereading it, reading and studying it, and receiving reading instruction. The above reading activities served as control conditions in all but four studies (74 percent). The average weighted effect size decreased slightly, to 0.48, when summary writing was compared to control conditions only involving reading activities.

Have Students Write Notes About a Text

Average Weighted Effect Size = 0.47 Researcher-Designed Tests (Based on 23 Studies)

The act of taking written notes about text material should enhance comprehension (Kiewra, 1989; Peverly et al., 2007). This writing practice involves sifting through a text to determine what is most relevant and transforming and reducing the substance of these ideas into written phrases or key words. Intentionally or unintentionally, note takers organize the abstracted material in some way, connecting one idea to another, while blending new information with their own knowledge, resulting in new understandings of texts.

In the studies we reviewed, taking notes about text ranged from a prompt to take notes with little or no direction to the use of a wide variety of structured note-taking procedures such as developing a written outline of text; designing a written chart showing the relationship between key ideas, details, concepts, and vocabulary in text; and taking notes about text and separating these notes into different columns related to main ideas, details, and questions.

For students in grades 3–12, the various note-taking activities studied had a moderate and consistently positive impact on reading comprehension. Twenty-one of the twenty-three comparisons (91 percent) produced a positive outcome.

Taking notes about text proved to be better than just reading, reading and rereading, reading and studying, reading and underlining important information, and receiving explicit instruction in reading practices. The above reading activities served as the control conditions in all but two studies. The average weighted effect size increased slightly, to 0.48, when note taking was compared to control conditions only involving reading activities.

NOTE TAKING: EXAMPLES

Structured note taking involves creating a written organizational structure for material read. With one approach, students are taught how to create an organizer resembling a flow chart, depicting changes in the events of a story over time.

Source: Denner (1987).

Concept mapping is another approach for helping students organize their notes about material read. Students place each important concept from text in a circle and then show how the concepts link together using words and lines. One way of teaching this strategy is to first present a model of an *expert concept map* for a particular reading. After discussing this map, students then practice completing other *expert maps* that are incomplete, moving from more to less complete maps, until they can create their own map for material read.

Source: Chang, Chen, and Sung (2002).