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Andrea Giese Maxworthy
University of Wisconsin at Whitewater

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Do Study Guides Improve Text Comprehension?

Andrea Giese Maxworthy

Although there are many types of study guides, the theoretical assumptions underlying them are the same. They are structures designed to improve reading comprehension (Armstrong, Patberg and Dewitz, 1988).

Study guides provide the guidance that students need to understand content area text materials. This type of adjunct aid has been defined by Richardson (1986) as:

...a group of activities; prepared in advance, designed to help the student organize information from the chapter and to suggest the use of applicable skills to the task (p. 9).

More specifically, Tutolo (1977) defines a study guide as:

...a teaching aid written by the teacher to be used...to assist the student in developing reading skills for the purpose of enhancing comprehension of textual material. A guide is usually a typewritten copy keyed to the textbook that can be placed beside the text while the student is reading. The student refers to the guide, then the text, or vice versa. Or the student may refer back and forth to guide and text while reading the associated text. The guide represents a plan or strategy to be

followed by the learner to enhance comprehension (p. 501).

Study guides have been advocated in the professional literature for several decades. Herber's extensive work has been crucial in establishing the importance of study guides as an instructional tool (Wood, Lapp and Flood, 1992). Herber (1978) cites two purposes for a study guide: to help students discover the important text ideas and to guide students through the reading and thinking ideas necessary for that discovery. According to Herber (1978) the purpose of a reading guide is to serve as a simulation of the comprehension process. In effect, the study guide provides a model of the teacher's thinking process during reading to use as a comprehension model for students. Wood, Lapp and Flood (1992) describe study guides as a "tutor in print."

According to Tutolo (1977) the "purpose of a study guide is to prepare a plan for reading the text..." In addition to serving as aids for students' comprehension of current text, they also provide a model of the process students need to develop to become mature and independent readers (Vacca and Vacca, 1989). Typically, study guides are designed with a specific purpose. The purpose varies to suit the text, content, and curriculum objectives. Study guides may be designed to familiarize students with the structure of the text or different levels of comprehension needed to master the text. Among other things, guides may highlight difficult vocabulary or foster higher level thinking.

Interlocking study guide

Study guides may be divided into two types: the interlocking study guide and the noninterlocking study guide (Tutolo, 1977; Vacca and Vacca, 1989). The interlocking study guide (Herber, 1978) centers on the hierarchical relationship

between levels of comprehension — literal, interpretive and applicative. Each of these three levels of comprehension is grouped separately with the sequence moving from literal to interpretive to applicative.

The most frequently cited example of an interlocking study guide is the three level guide based on Herber's (1978) definition of reading:

...reading is defined as a thinking process which includes decoding of symbols, interpreting the meanings of the symbols, and applying the ideas derived from the symbols (p. 9).

Besides the hierarchical arrangement of the interlocking study guide there is another distinguishing feature. Statements, rather than questions, are used to guide students through the comprehension process. Although questions are a common teaching tool, Herber (1978) believes that the use of questions assumes students already possess the necessary skills to answer the questions. Questions test rather than model comprehension (see Appendix A).

Noninterlocking study guide

One example of a noninterlocking study guide is the interactive study guide developed by Smith (1987) to foster higher-level thinking. This study guide was founded on the interactive definition and philosophy of reading. Study guide questions were designed to promote students' active dialogue with and about text by beginning with students' personal knowledge and experience. "The student is asked to 'interact' with the author at a personal level" (Smith, 1987, p. 86).

Smith (1985) further characterizes his interactive study guide in the following way: 1) it allows for student choices; 2)

it elicits responses to reading that cannot be judged as correct or incorrect; 3) it requests personal feelings; 4) it encourages speculation; and 5) it solicits evaluation. This study guide reflects the interactive definition of reading:

Reading is comprehension. Reading comprehension is a dynamic interactive process of constructing meaning by combining the reader's existing knowledge with the text information within the context of the reading situation. The key elements are reader, text, and context (Cook, 1986, p. 6).

This definition stresses the active communication between the writer and reader. Simply put, reading comprehension is a dialogue between an author and a reader (Smith and Johnson, 1980). Reading is accomplished through interactive rather than sequential processes (Rumelhart, 1977). In this perspective on comprehension, the reader's active engagement within the text is required. In the interactive viewpoint, text is no longer viewed as a static entity with only one possible meaning, but as a blueprint or guide to enable the reader to construct meaning through ongoing negotiations with the author (Flood, 1986). The noninterlocking study guide (Smith, 1987) is based on this interactive definition and philosophy of reading. It exemplifies the interactive nature of comprehension by actively engaging the reader's participation in an ongoing dialogue with text through the use of personal experience and judgment. This study guide models the interactive process of reading, and, in this way, is intended to improve text comprehension (see Appendix B).

Description of the study

Although extensive research on the effects of questions on textbook reading comprehension has been conducted, the majority of this research is not specifically relevant to the use

of study guides as a means of improving text comprehension. In a discussion defining the uses and types of study guides, Tutolo (1977) suggests that classroom research be conducted to provide teachers with information on the most effective type of study guide so that they might construct better study guides for their students. In the same discussion which contrasts interlocking and noninterlocking study guides Tutolo (1977) states that the research is not yet clear on which of these two approaches is more effective in improving students' text comprehension.

To provide classroom teachers with valuable information on the potential importance and use of study guides an investigation of the effects of study guides on students' comprehension was conducted. Three different types of study guides, interlocking, noninterlocking, and teacher-constructed were compared.

Two questions formed the basis for the investigation: Will the use of a study guide facilitate improved text comprehension and if so, which type of study guide better facilitates text comprehension? Specifically, the purpose of the study was to investigate the comparative effects of three different types of study guides — interlocking, noninterlocking and teacher-constructed — on comprehension and post-reading oral discussion. In addition, teacher's and student's satisfaction with the study guide was compared.

Since the purpose of the study was to investigate the effectiveness of study guides in existing classroom conditions, the study was conducted in an intact social studies classroom with the current textbook. Three social studies classes of heterogeneously grouped seventh graders were chosen from a middle school population of 500 sixth, seventh and eighth graders to serve as subjects for the study. According to recent

test scores, the range of reading abilities was similar in the three social studies classes. Each class had an equal distribution of male and female students. The students were judged to be alike in any variables that might affect the study. Assigning a teacher-constructed study guide designed especially for each reading passage was the usual procedure in these social studies classrooms. The teacher-constructed study guides varied in question format and number of questions; however, the questions on all three study guides were literal level. Since study guides vary in quality from teacher to teacher, the term *teacher-constructed study guide* is applicable only to the specific study guides used in the classroom in this study. This typical or teacher-constructed study guide served as a comparison to the interlocking and noninterlocking study guides.

The three heterogeneously grouped seventh grade social studies classes were assigned to one of the following treatment groups: 1) interlocking study guide; 2) noninterlocking study guide; or 3) teacher-constructed study guide. Students used their assigned study guides to accompany their text selections during the nine days of the investigation. For each of the three phases of the study students 1) read a brief social studies passage (2-5 pages); 2) completed the study guide appropriate to their treatment group; 3) participated in a post-reading discussion; 4) took a comprehension test (Herber Format Test); and 5) completed a Student Satisfaction Survey. In addition, the teacher completed a Teacher Satisfaction Survey. For each of the three passages used in the study four measures were obtained: 1) comprehension test scores (Herber Format Test); 2) Student Satisfaction Survey scores; 3) oral discussion ratings; and 4) a Teacher Satisfaction Survey score.

Students' comprehension of the text passages was assessed by the Herber Format Test. This paper and pencil test

covered the content of the text selections. The test format developed by Herber (1978) requires students to state their opinions of the text passage as well as to provide reasons for their opinions. The question can be raised as to whether a paper and pencil test can accurately assess all aspects of text comprehension. It is for this reason that this study sought to go beyond the previous research on study guides (Estes, 1970; Berget, 1974; Hash, 1974; Walker, 1976; Baker, 1977; Dolan, 1978; Armstrong, Patberg and Dewitz, 1988) by examining comprehension in an additional way, through post-reading oral discussion.

Each oral discussion was rated by two independent observers using the Observational Scales for Assessing Higher Order Thinking in High School Social Studies (Newman, 1988), a seventeen-item rating scale, which was adapted to suit the purposes and setting of this study. The Scales rate the quantity and quality of classroom activities which characterize higher level thinking. Interrater reliability for the oral discussions was determined to be .991.

Students' comprehension of text can be assessed through oral discussion in which students are required to use the information from the text in the discussion. Discussion can provide an opportunity for students to examine out loud their understanding of what they have read. Discussion requires students to translate text information into their own language. In order to participate in discussion, students must analyze, synthesize, and evaluate their text content orally. Therefore, an examination of students' post-reading oral discussion can be used to reveal students' text comprehension.

Student evaluation of the interlocking and noninterlocking study guides was assessed by the completion of a Student Satisfaction Survey. This instrument was modeled

after a scale developed by Montague and Tanner (1987) to assess content area reading strategies.

Teacher evaluation of the study guides was examined in several ways. First, the teacher was interviewed prior to the beginning of the study and then again after the completion of the study. In addition, the teacher completed a Teacher Satisfaction Survey. Like the Student Satisfaction Survey, this instrument was modeled after a scale to assess content area reading strategies developed by Montague and Tanner (1987).

Findings

In the present study, the type of study guide was found to have an effect on the quality of discussion and the comprehension test scores of seventh grade social studies students. The noninterlocking study guide proved superior to both the interlocking and teacher-constructed study guides in regard to classroom discussion. The quality of discussion was significantly higher in classes that used a noninterlocking study guide than in classes that used an interlocking study guide or classes that used a teacher-constructed study guide. No significant differences in the quality of discussion were found between classes who used an interlocking study guide and classes who used a teacher-constructed study guide. It can be concluded that the use of a noninterlocking study guide produced a better quality discussion.

The study also found the type of study guide had an effect on comprehension test scores. The comprehension test scores of students who used both interlocking and noninterlocking study guides were superior to the comprehension test scores of students who used a teacher-constructed study guide.

There was no significant difference in the satisfaction expressed among students who used an interlocking study

guide, a noninterlocking study guide, or a teacher-constructed study guide. There was no difference in the satisfaction expressed by the teacher whether students used an interlocking study guide or a noninterlocking study guide. The conclusion must be drawn that the different guides investigated in the present study had no effect on the students' or the teachers' degree of satisfaction with using them.

Study guides are worthwhile instructional aids. Specific types of study guides, noninterlocking and interlocking, produce higher comprehension test scores. The noninterlocking study guide also improves the quality of discussion.

Research into practice

Successful implementation of any study guide is dependent on the decisions and direction of the teacher. A study guide is only as effective as the teacher who chooses it, for it is the individual teacher who decides when and how to use a particular study guide. In addition to the study guides described in this article, there are a wide variety of other study guides available for classroom use (Wood, Lapp and Flood, 1992). Teachers should select the most suitable guide for the objectives of the lesson. Karen Wood and her colleagues recommend the judicious use of study guides. Study guides are meant to assist students with difficult text. It is not necessary for each chapter or selection students read to be accompanied by a study guide.

Teacher direction is required for a study guide to be effective. Study guides should be explained and modeled for students. Guides are not meant to be independent seatwork. Modeling and guided practice were provided for both study guides in the present study. Initially, Smith's Study Guide proved difficult for students who were unaccustomed to open-ended questions. After teacher modeling and practice

with Smith's Study Guide, students' confidence and performance improved.

Follow-up discussion is another element critical to the successful use of interlocking and noninterlocking study guides. Informal classroom observation and experience suggest that small group discussions increase the effectiveness of both study guides. In fact, Wood, Lapp and Flood (1992) recommend follow-up discussion with any study guide to increase student recall and interest.

While study guides can be valuable tools for the enhancement of instruction, the effectiveness of any study guide depends in a large part on the decisions and direction of the individual teacher.

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Andrea Giese Maxworthy is a faculty member in the Department of Curriculum and Instruction at the University of Wisconsin-Whitewater in Whitewater Wisconsin.

APPENDIX A
Interlocking Study Guide
Reading 4 Language and Culture

I. Directions: Check the items you believe say what the author says. Sometimes the exact words will be used; other times other words may be used.

- ___1. A language is a set of signs and symbols used to communicate thoughts.
- ___2. A language must be written.
- ___3. Anthropologists who study language and its relationship with a culture are called linguists.
- ___4. Often languages have several dialects or different ways of pronouncing words.
- ___5. The more ideas and things a society develops the more words it needs to describe those ideas and things.
- ___6. Eskimos have twenty words to describe the word *snow*.

II. Directions: Put a check on the line beside any of the statements below which you think are reasonable interpretations of the author's meaning.

- ___1. Language is the foundation of culture.
- ___2. Language communicates thought.
- ___3. Languages remain the same over time.
- ___4. All people have language.
- ___5. Dialects keep people apart.
- ___6. Language shows the values of a culture.
- ___7. Cultural diffusion occurs through language.
- ___8. Language and dialect produce unity among people.

III. Directions: To apply what you have read means to take information and ideas from what you have read and connect them to what you know. Place a check in the blank beside any statements below which are supported

by statements in level 2 and by previous experience or study. Be sure you can defend your answers.

- ___1. A linguist is a type of anthropologist.
- ___2. TV would not be possible without language.
- ___3. People can communicate without language.
- ___4. Without language there would be no school.
- ___5. Most of the people in the world speak English.
- ___6. Everything in a culture has a name.

APPENDIX B

Noninterlocking Study Guide

- 1. Suggest a different title for this selection. Try to capture the essence of the selection in your title, but keep it short.
- 2. Two key ideas or concepts in this selection are:
 - A.
 - B.
- 3. Three details or facts you would like to remember from this selection are:
 - A.
 - B.
 - C.
- 4. What, if anything, did you find especially interesting or surprising in this selection?

5. What are one or more words from this selection you think the author probably chose rather carefully?
6. Indicate any words, sentences or paragraphs in the selection you would like to discuss in class or have explained:
7. If the author of this selection were available to you, what questions would you like to ask or what comments would you like to make?
8. What, if any, mental images did you form while you were reading this selection?
9. Overall, did you find this selection to be:

Very

Not very

Interesting

Informative

Easy to read

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