

AN ABSTRACT OF THE THESIS OF

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Middle School represents a period of transition for the students. This transition is present not only in physical change, intellectual change, and emotional change, but also in terms of the type of reading instruction these students receive. One approach to reading instruction moves from a direct approach focusing on specific skills, to a functional approach of how to apply those skills in the content area classroom. The latter approach is process oriented, and focuses on learning the content by reading and participating in relevant learning activities.

The focus of this study was to examine the interaction which takes place among textbooks, instructors, and students in the area of Social Studies within selected middle schools. Three phases were involved in this study.

Phase one: Grade six Social Studies textbooks were evaluated using the Singer Reading Inventory, which evaluates the areas of organization, explication, conceptual density, metadiscourse, and instructional devices within a given textbook.

Phase two: Visitations to five middle school Social Studies classrooms were conducted over an eight week period in an effort to determine the types of instructional strategies employed by teachers.

Phase three: Academic achievement was measured by publisher provided examinations, teacher prepared examinations, or an aggregate of daily scores.

Hypothesis one: Social Studies textbooks which are more considerate will result in greater student achievement. This hypothesis was rejected. The achievement of students was inversely related to the results of the evaluation of the textbooks as determined by the Singer Reading Inventory. The rejection of this hypothesis must be qualified in terms of the content the subareas of the Singer Reading Inventory measured, and the type of information the student had to acquire in order to perform well academically.

Hypothesis two: Teachers who employ more strategies which are of a functional process approach will enhance student achievement in the content areas. This hypothesis was retained. The preceeding findings may be partially explained by considering the possibility that some classroom instructors compensate for the inadequacies of textbooks by providing more effective strategies and activities which enhance the interaction of information exchange within the classroom.

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**Middle School Social Studies:
An Examination of Textbook Structure,
Classroom Interaction, and Student Achievement**

by

Glenn Maitland Hookstra

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TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
I INTRODUCTION	1
Background of the Problem	1
Statement of the Problem	7
Purpose of the Study	8
Parameters and Limitations of the Study	9
Definition of Terms	9
Research Questions	10
II REVIEW OF THE RELATED LITERATURE	11
Readability of Texts	12
Text Features	14
Reading Instruction in the Content Areas	16
Whole Language	19
Prior Knowledge	21
Schema Theory	21
Inferencing, Prior Knowledge, and Schema Theory	24
Cohesion in Texts, Prior Knowledge, and Teaching Strategies	28
Summary	31
III METHODS AND PROCEDURES	34
Content Area Textbooks	34
Site Location and Sample	35
Design of the Study	37
Collection and Treatment of Data	38
Phase One: Textbook Evaluation	38
Phase Two: Classroom Observations	39
Phase Three: Student Achievement	40
Hypotheses	40
Summary	41
IV PRESENTATION OF DATA	42
Textbook Evaluation	42
Classroom Observations	45

	Common Factors	45
	Unique Features	46
	Summary of Classroom Observations	60
	Student Achievement	63
	Findings	65
	Summary	65
V	SUMMARY AND CONCLUSIONS	67
	Interpretation and Conclusions	68
	Phase One: Textbook Evaluation	68
	Phase Two: Classroom Observations	70
	Phase Three: Student Achievement	78
	Results of Data Analysis	79
	Conclusions	80
	Recommendations for Further Study	83
	BIBLIOGRAPHY	85
	APPENDICES	
	Appendix A: Definition of Terms	98
	Appendix B: Singer Reading Inventory	105
	Appendix C: Background Information	110

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Mean Scores for Selected Features Within the Singer Inventory for Assessing Readability of Textbooks	43
2. Summary of Classroom Observations	61
3. Student Achievement by Class	63
4. Student Achievement by Textbook	64

**MIDDLE SCHOOL SOCIAL STUDIES:
AN EXAMINATION OF TEXTBOOK STRUCTURE,
CLASSROOM INTERACTION, AND STUDENT ACHIEVEMENT**

I INTRODUCTION

Background of the Problem

A major focus of this study is concerned with the textbook as an important factor in the instruction of developing readers. Students often encounter difficulties when they move from highly controlled basal readers to content area textbooks (Anderson et al., 1985; Lapp and Tierney, 1979). Problems of transition are exacerbated throughout the grades as the reading content becomes greater in terms of quantity and in terms of difficulty (National Assessment of Educational Progress, 1985). To assist students during this transition period many educators have suggested that reading instruction needs to extend beyond the basal reader to content area material (Carroll, 1964; Herber, 1978; Lapp and Flood, 1986; and Vacca, 1981).

Content area instructors face a dilemma of the content (what is to be learned) of their specific discipline versus the process (how it should be learned). The reference to the term of "reading skills" throughout this thesis needs to be thought of as a

part of the overall learning process. These "skills" cannot be presented in a vacuum. That is not to say that explicit instruction of various techniques should not take place, however, it must be understood that the reading skills referred to throughout this research are considered as part of the whole process of learning the content on the part of the student. When textbooks are the vehicle for learning, showing students how to learn (through the process of reading) becomes a responsibility of the content teacher (Vacca, 1989).

Herber (1978), Lapp and Flood (1986), and Pearson (1985) have contended that the major responsibility of the teacher who is instructing in the content areas is to help students understand the relationships between their prior knowledge and the new information they are about to read. In recent years, many researchers have found that the amount and quality of one's background knowledge as well as one's ability to access this knowledge is significantly related to reading comprehension success (Langer, 1984 and Lipson, 1984).

Three factors involved in a content area classroom are the teacher, the text, and the student. The interaction among these factors ultimately determines what the student takes from the classroom in terms of content area knowledge. The teacher, in this situation, is typically viewed as being responsible for "bridging the gap" which exists between the reader and the text.

A question pertinent to this study is: "Are the types of textbooks used in the classroom relevant in making this 'gap' less ominous?"

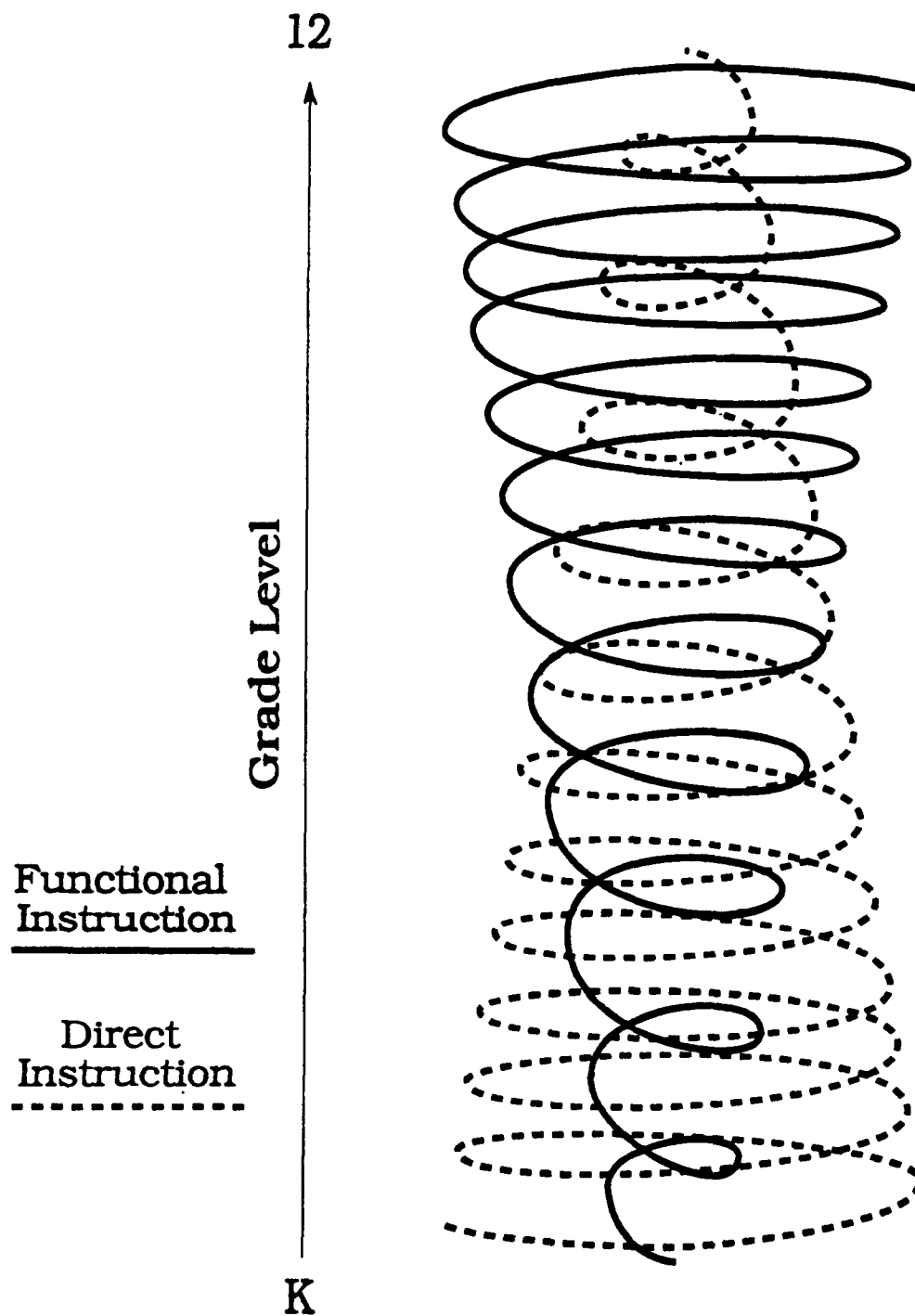
Success in the ability to read has long been recognized as a necessary component in the attainment of knowledge in our traditional educational system (Betts, 1950). By the time students have reached grade six it is expected that most basic reading skills have been introduced, if not mastered, by the students. The fact that this is not always the case is underscored in the findings released by the Oregon State Board of Education (EDU*GRAM, 1987). A panel appointed by the State Board of Education has made the following recommendations concerning reading in the content areas: (1) Provide purposeful reading programs at the middle school level where reading skills are integrated into content areas. These programs should emphasize critical reading and thinking, adjusting rate and purpose of reading, and reinforcement of skills taught in elementary school. (2) Provide teachers with strategies to extend reading instruction beyond the reading textbook, into the content areas. (3) Encourage publishers to incorporate instruction on reading skills into content area textbooks. In effect, the content textbook needs to become the "reading text" of the middle school.

There are numerous features which the content textbook can contain to address the above recommendations. These have to do with both external structure and internal structure of the

text; readability (considerate versus inconsiderate text); suggested prereading strategies; questioning strategies; vocabulary development; and suggested study strategies (Vacca, 1986; Adams, et. al., 1982; and Alvervman, 1983).

When considering the total reading curriculum and its place in the content areas, it may be useful to consider the paradigm of direct instruction versus functional instruction (Early, 1964). Direct instruction deals with skills specific to the act of reading. Functional instruction is concerned with the ability of the student to use these skills in order to gain knowledge from the printed page. Functional instruction is a learning process approach which is considerate of the reading abilities of the students. Functional instruction takes on metacognitive aspects in that students must learn how, when, and why they activate a specific skill which they have learned through direct instruction. In this model (see figure 1) one must imagine direct instruction as a broad spiral during the primary grades which constantly narrows as one finishes secondary school. At the same time consider functional instruction as a very tight spiral at the primary grades ever expanding as one completes secondary school. If these two spirals are superimposed it is possible to envision them being approximately equal in size at the middle school level: which becomes a critical period when considered in terms of; students, textbooks, teachers, and their

Figure 1. Functional verses Direct Instruction



interactions. Reading skills must be transferred from the reading classroom into the learning process of content area classroom.

Classrooms at any level contain students with a wide disparity, both in terms of cognitive development, specific skills learned, and the ability to apply those skills. Many of the tasks and concepts middle school students are required to perform and understand deal with formal operations. Often times students are not prepared developmentally to deal with these demands, and other times, they may be prepared developmentally, nevertheless, they have not acquired the explicit skills necessary to function at a satisfactory level. These explicit skills would be apparent as a result of direct instruction. The disparity in the middle school classroom thus becomes evermore complex in terms of personal instruction, and materials used. The implications of the preceding discussion is that a discriminating mix of instructional techniques and textual usage may be necessary to assist these students through this transition from concrete operations to formal operations; from direct instruction to functional instruction; from a skills approach to a process approach.

The principle hypothesis of this proposed study was that if the teacher does not provide for the needed skills and functional processes which may be lacking in individual students, then

perhaps a textbook which contains adjunct aids and suggestions may assist in insuring that an individual leaves the classroom with these abilities. Thus, not only the intended content knowledge, but the tools necessary to further that knowledge become part of the students' schema.

Statement of the Problem

Many students have difficulty comprehending school textbooks during the middle school years. Some theorists (Tierney, et. al. 1980; Smith, 1973) have argued that this phenomenon exists for two reasons: (1) textbooks are written in a style that is difficult to understand, and (2) students do not receive reading instruction within the context of content area learning, specifically in the area of acquiring and extending prior knowledge (Adams and Bruce, 1980). It has been argued that children receive most of their reading instruction exclusively within the context of the basal reading lesson (Anderson et al., 1985). In an attempt to deal with the concerns of unclear writing and little instruction, publishers have stated that they have improved the writing in their texts and have included explicit provisions in the teacher manuals for reading instruction within content area texts by making recommendations for helping students acquire and extend their prior knowledge (Hawke and Davis, 1986). However, some

researchers (Tyson-Bernstein and Woodward, 1989) have argued that there has been little change in content textbooks and teacher manuals; they argue that only limited instructions are offered to teachers. Other researchers disagree that no change has taken place; rather they suggest that publishers have tried, but have only focused on low-level changes, including token suggestions for relating prior knowledge to new information.

Purpose of the Study

One purpose of this study was to examine contemporary textbooks to determine the clarity of writing (considerate versus inconsiderate text). Further, classroom observations were made in an effort to determine what instructional strategies were employed by teachers. Primary attention was given to instructional strategies which were necessitated in an effort to overcome any apparent weaknesses of the textbooks, or those which enhanced the strengths of the textbooks (specifically in terms of helping students acquire and extend relevant prior knowledge). A third aspect of this study focused on the unit test scores or aggregate grades earned by students in an effort to determine the amount of goal attainment within a given unit of study.

Parameters and Limitations of the Study

This study was limited to an investigation of social studies textbooks at the sixth grade level. Social Studies was chosen because it is an area of study which is common to the curriculum of middle schools within the state. Furthermore, Social Studies textbooks have been under a considerable amount of criticism. Grade six was chosen because this is a crucial transition period in which formal reading instruction using a basal series often ends, while the amount of content instruction increases in dramatic proportions.

The validity and reliability of the Singer Reading Inventory have not been established. Therefore the results obtained from this instrument, while presented as mathematical means, must be considered subjective in nature.

Definition of Terms

The definitions of terms are contained in Appendix A.

Research Questions

Three questions summarize the intent of this research.

1. Are current sixth grade social studies textbooks clearly written? Are the textbooks considerate or inconsiderate in nature? How readable are they?
2. Are suggestions for helping students acquire and extend relevant prior knowledge being made in the classroom in an effort to make the information contained in the textbook more germane to the goals of instruction?
3. Do chapter test scores reflect an appropriate measurement of goal attainment as determined by the individual classroom teacher and effected by the student, teacher, and textbook interaction?

II REVIEW OF THE RELATED LITERATURE

Numerous scholars have maintained that content textbooks pose the greatest challenge for young readers; however, there are various theories put forth in terms of describing why these difficulties occur. Flood (1986) suggests that children have difficulty with content area textbooks because they contain unfamiliar concepts and vocabulary; long sentences and difficult syntax; lack of illustrations; and generally inconsiderate, unfriendly writing styles. Alverman and Boothby (1982) also maintain that students experience difficulty with content area materials because of their "lack of experience in dealing with expository structure, their unfamiliarity with the vocabulary of content, and their inability to process the heavy concept load" (p. 298).

In addition to text features, some researchers (Collins-Cheek, 1983) have argued that students have difficulty with content area materials because they have not been taught how to read school textbooks; that is, they have not been taught how to relate their relevant prior knowledge to the new material to be read.

This review of literature scrutinized three aspects of the content area classroom: (1) readability (considerate text versus inconsiderate text) of textbooks; (2) evidence of the strategies which enhance the use of prior knowledge and overall

comprehension; and 3) test scores or aggregate daily grades of unit segments of study.

Readability of Texts

The ways in which one determines readability continues to be a problem for researchers. The merits of a variety of measures have been discussed since readability formulas were first proposed by Lorge, 1939 and Dale and Chall, 1948. Readability, in general terms, deals with the ease of understanding or comprehending, on the part of the reader, because of style of writing. Many variables in a given text may contribute to readability such as; format, typography, content, literary form and style, vocabulary difficulty, sentence complexity, ideas or proposition density, and cohesiveness. Many variables with the reader also contribute, such as; motivation, abilities, interests, and prior knowledge (Harris and Hodges, p. 262, 1981). This connotation of readability should not be confused with the recent popularity of readability formulas which rely solely on sentence length and word difficulty such as the Fry Readability Graph (Fry, 1977). This latter approach, it should be noted, completely ignores factors residing with the reader.

Syntactic analysis became a dominant approach in linguistic research on readability in the 1960's. Schlesinger (1968)

confirmed the "interaction of semantic and syntactic factors in producing sentence complexity" (p.141). A psycholinguistic theory of readability was proposed by Hittleman (1973) in an effort to account for the ways in which a "reader's emotional, cognitive, and linguistic backgrounds interact with each other, with the topic and with the proposed purpose for doing the reading, and with the author's choice of semantic and syntactic structures" (p. 785). Cunningham (1976) confirmed this point of view stating that there is "a positive relationship between the sentence patterns used in the expressive functions of speech and writing and the receptive act of comprehending written material" (p. 65). Herber (1978) found that many formulas incorporated an estimate of syntactic complexity. However these formulas proved cumbersome to use in the classroom. Ekwall and Shanker (1985) suggest that many teachers do not understand the complex rules involved in using formulas that contained a syntactic element and thus have opted for the more popular formulas based on word and sentence length.

Increased dissatisfaction with readability formulas have surfaced in recent years (Zakaluk and Samuels, 1988). As research in linguistics is shifting its emphasis, reading researchers are also shifting their approaches to readability. Current linguistic research in discourse theory is examining language beyond the sentence level (Binkley, 1988). This current work is being closely monitored by that segment of the

reading community who are concerned with text features and their impact on comprehension.

The current impact of discourse-level linguistic research on education has mostly been to advance the demise of readability formulas (Zakaluk and Samuels, 1988). This loss of acceptability continues under the current emphasis on text-based theories of language which yield insights into larger text features. In 1984 the International Reading Association published a statement disclaiming the exclusive use of readability formulas in the construction or selection of textbooks for classroom use: consideration of features that make texts comprehensible was encouraged before any determination of readability was made.

Text Features

Comprehensible texts contain features that facilitate learning. Anderson and Armbruster (1981) formulated criteria, based upon prior research, for determining new ways of assessing readability of texts. They argued that certain features enable readers to obtain relevant information with minimal cognitive effort. These features include: "**structure** that best conveys a text's purpose, **coherence** among clearly stated ideas at each level of discourse, **unity** of purpose established by including only

relevant information, and a **knowledge base** that is appropriate for the reader."

In addition to these four characteristics, other researchers have suggested several unique features that make texts comprehensible. Langer (1984) found conceptual density to be a determinant of readability and Crismore (1983) theorized that the role of the author's metadiscourse in which direct statements were made to the readers also plays a role in comprehensibility. Irwin and Davis (1980) found nine distinct factors to be related to comprehensible texts:

(a) understandability (inclusion of background knowledge and bridges to reader's prior knowledge), (b) adequate concept development, (c) coherence and clarity among ideas, (d) appropriateness of the readability level for the reader, (e) learnability (using familiar organizational patterns), (f) instructional devices that provide reinforcement, (g) feedback, (h) graphic depiction of ideas, and (i) motivation (including interesting activities, appealing writing styles, and attractive pictures. Singer (1985) incorporated the above features along with others that are known to favorably influence comprehension into a scale for assessing text readability.

Reading Instruction in the Content Areas

The reality of reading instruction in the content areas occurred during the 1940's (N. B. Smith, 1965). Strategies in which social studies content could be integrated into a "reading curriculum" were suggested in the basal readers' teacher's manual. Bond, (1941) and Leary (1948) maintained that remedial instruction was insufficient, and recommended a developmental program for all secondary students that continued remedial programs for low performing students. A plethora of research was generated in the content areas during this period focusing in secondary school reading and content area reading at this level (McCallister, 1932; Swenson, 1942 and Artley, 1944).

Content reading instruction gained a somewhat broader base of acceptance during the late 1950's and 1960's with the inception of middle schools. Some educators contended that while elementary teachers could teach the reading skills and were in a position to integrate those skills in subject-related texts, it was the content teacher who needed to continue developing specific reading skills within the subject being taught. Robinson and Thomas (1969) stated:

"The content teacher is the best qualified person in the school for teaching reading in his subject. He is the one who; (1) is the most

capable in teaching the new vocabulary in his subject, (2) is most knowledgeable in setting purposes for reading, (3) is most able in developing and motivating student interest, (4) is most adept in identifying important concepts to be arrived at, (5) is most conversant with multi-resources, their use and value in developing background experiences, and (6) is familiar enough with the text to know how to best read and study it (p. 19)."

The role of the content teacher began, in some enlightened circles, to be defined as one who helped students become better learners as well as more competent readers. Much like knowledge of a subject, Estes and Vaughn (1979) suggested that reading ability is a "phenomenon that develops over a lifetime" (p. 11).

In a national survey, when asked what reading instruction should be taught at the middle school level, most respondents indicated that content area reading instruction should be stressed above any other forms (Irvin and Connors, 1989). Conversely, this survey of exemplary and randomly chosen middle schools indicated that in the reading programs, most reading instruction was provided only to those students who had been designated as being in need of remedial instruction. Further, developmental reading courses tend to become less required as students move from 6th to 8th grade. Durkin

(1978-79) reported that little of the reading instruction in the elementary grades included instruction in reading content area textbooks. It appears that little of the instruction at the middle school level focuses on this area of reading either, although expository text makes up the largest portion of the required reading in middle level classrooms. In essence, formal reading instruction ends, for most students, by the time they enter middle school.

Gee and Forester, (1988) have indicated that only 14% of the respondents believed that content area reading was an important part of their reading program. Other research has indicated that at least half of the middle school teachers questioned felt that reading instruction was not the responsibility of content teachers (Lipton and Liss, 1978). It would seem that reading instruction, when it is offered, is the sole responsibility of the reading teacher. These results are discouraging in light of the recommendations of the authors of *Becoming a Nation of Readers* (Anderson, et. al., 1985) who stated that the "most logical place for instruction in most reading and thinking strategies is in social studies and science rather than in separate lessons about reading".

In recent years, educators have contended that one of the most critical responsibilities of the content teacher is to help children acquire and extend prior knowledge. This acquisition and extension must be dealt with before, during, and after

students are asked to read texts in order to enhance the learning potential of the students.

Whole-Language

The previous discussions have dealt with reading skills. It must be remembered that reading does not take place in a vacuum. That is, the teaching of specific skills does not guarantee that an end product of comprehension and retention will result. Just as specific skills instruction in peddling, steering, and balance may not enable a person to be a successful bicycle rider; one cannot teach children to read content texts by first teaching them to read isolated vocabulary, headings and subheadings, and finally the text. The use of a whole-language approach may be considered a functional approach to reading in the content areas. The teaching of specific skills is not taken out of the context of the expository material, rather, instruction is based on the needs of the student. The whole-language approach is interactive and process based (Harp, 1989).

Weaver (1988) contends that the primary objective in content reading is to help students draw on background experiences to create meaning and relevancy, which will aid in the students' comprehension. She states that this may best be done by creating certain conditions for learning in the classroom, and

makes the following suggestions in support of her contention.

- (1) Motivating readers with the aid of field trips, television, speakers, artifacts, et cetera. Using these techniques the background knowledge of students is activated and built upon.
- (2) Using authentic classroom activities that draw on content area knowledge. There must be a realistic reason provided for the students to deal with the text. Content materials may be read as resources in thematic units and as part of problem solving situations.

Smith (1982) contends that content area reading skills may best be learned by reading and using content area texts. Helping students deal with the difficulties of the content texts as they read them will teach the skills. Process techniques such as the Directed Reading Thinking Activity (DRTA) (Stauffer, 1975) may be used with content material to build background knowledge. The DRTA involves the readers in predicting, reading, and proving their predictions while the teacher is involved in asking what the readers think, why they think so, and how they prove their answers.

Prior Knowledge

Schema-theory research is central to the investigations of relationships between prior knowledge and reading comprehension success. Much of the current research dealing with prior knowledge and schema-theory is based on the developmental works of Bruner (Bruner, et al., 1956), and later, on the works of Piaget (Piaget and Inhelder, 1973).

Schema Theory

Rumelhart (1980) defines schemata as the "building blocks of cognition" upon which all information processing is dependent. Anderson, Spiro, and Anderson (1977) described schemata as "Mental structures that incorporate knowledge". Ausubel (1978) asserted that experiences and knowledge are cumulative and integrated into a cognitive structure. He believed that a person's wealth of knowledge is organized hierarchically; that information is stored in the brain in highly generalized concepts, less inclusive concepts, and specific facts. Further, Ausubel felt that an individual's organization, stability, and clarity of knowledge of a particular subject at a given time is a major factor in learning and retaining new information. Learning is easier for a person whose knowledge is clear, stable, and organized. It is important

to remember that schema or prior knowledge of a topic is not passive, rather it is dynamic, enlarging, and changing constantly as new information and experiences are assimilated into it or accommodated by it.

Schemata are developed in several ways. First, new sensory information is "filled" into the appropriate slot in a framework that already exists; this phenomenon is sometimes called "accretion" but Posner et al. (1982) call it "assimilation", as did Piaget. In this type of development, no new schemata are formed. It should be noted that a given slot may be allowed only a single or many variables depending on the specific information which is gathered. Further, when a schema is instantiated but no information is available to fill in a particular slot variable, a default value is assigned to that slot (Minsky, 1975). Default values are critical to inference and comprehension, but they also have the potential of creating problems through the generation of misconceptions by the listener or reader. Bruner has pointed out that concepts are more easily retained when positive or acceptable information is assigned to these default slots, rather than misinformation which eventually will be rejected.

A second way in which schema can be developed is by changing an existing schema to match the parameters of a new experience. In Rumelhart's terminology, this is referred to as "tuning". It is more commonly referred to as "accommodation". In this situation, a newly formed schema must be intelligible and

it must be able to be generalized to unique situations. For a true schema to exist, it must be able to generalize to all possible instances of a concept, not a single instance (Rumelhart, 1980). The schema merely provides the slots to be filled, the relationships between the slots, and a general framework of knowledge. Anderson and Pearson (1984) discussed the role of schemata in organizing relationships among concepts by explaining that inadequately organized relational connections can lead to incorrect inferences, confused recall, and slow retrieval.

A third way in which schema can be formed is by the creation of an entirely new entity. Although some theorists argue that no schema can be entirely new because we base everything new on what is old and already familiar (Adams and Bruce, 1980), these new schemata are built from parts of old schemata with elements organized in a different relational pattern.

Instantiation occurs when a schema is bound to a particular set of variables. Low-level schemata, which have been embedded in higher-level schemata, may be activated by a sensory event. Low-level schemata, in turn, activate high-level schemata in which they are embedded and the higher-level schemata activate other lower-level schemata which are embedded in them. Each is matched against sensory input to determine the appropriate schemata to be instantiated. If no match is found, the system

attempts to find additional input to fill possible schema slots. This idea of simultaneous processing is a key feature of Rumelhart's theory of Reading (Rumelhart, 1976). In Rumelhart's theory, low-level schemata are activated by printed letters which activate higher-level orthographic, syntactic, semantic, and lexical schemata for comparison with sensory information which results in the most probable interpretation being instantiated. Comprehension occurs at this point because the reader has found a set of schemata that helps give an organized account of all aspects of the text. If some variables are not accounted for by the schema, the reader can accept or reject the input and look for a new schema.

Inferencing, Prior Knowledge, and Schema Theory

Adams and Collins (1977) have maintained that: "Spoken or written text does not carry meaning; it provides direction to the listener or the reader as to how to retrieve or construct meaning from prior knowledge." Schema theory is essentially concerned with prior knowledge and much of the research that is designed to support schema theory actually manipulates, measures, or describes prior knowledge.

According to Adams and Bruce (1980), authors begin writing by deciding the information that will be conveyed and the ways

in which it will be communicated. In top-down models of reading, a reader's prior knowledge determines the degree of comprehension that can be attained from reading the text. The author must estimate the level of related knowledge that readers already possess. The author must then produce utterances that evoke (instantiate) appropriate schemata and help to interrelate bits of knowledge into a structure that can capture intended meaning. The match between the prior knowledge that the author estimated and the actual prior knowledge possessed by the reader plays a critical role in reading comprehension. This is the same process that occurs in inferencing except the information that is needed to instantiate a schema is explicitly stated in the text when an author correctly evaluates the audience.

In Wilson's (1983) view of reading, inferencing skills and prior knowledge come together at the center of the model, with input from text and specific prior knowledge of decoding, vocabulary meanings, grammar or syntax, passage structure, and cohesion interacting with the higher-level general prior knowledge and inferencing schemata to arrive at meaning. Adams and Bruce (1980) explained the profound effect of prior knowledge on vocabulary development, stating that new words are interpretable only if they are explained in relation to already known words. If there is a mismatch between the meanings of

the words that are intended by the author and those possessed by the reader, complete comprehension is impossible.

When an author writes expository text, he or she must consider what information should be included. The potential audiences' schemata and prior knowledge must be considered. The author must assume that several types of prior knowledge are already available to readers and need not be included in the text (Adams and Bruce, 1980).

Kintsch (1977) demonstrated that inferencing often leads to comprehension problems. He argued that if an incorrect value is inferred for a particular slot, then the incorrect piece of information may instantiate another schema which may be irrelevant to the given sensory input because it was incorrectly inferred in the first place.

Students' prior knowledge, or what they already know about a topic, contributes a great deal to text comprehension. Therefore, assessing the background knowledge, experiences, beliefs, and values that students bring to a unit of study or a text selection becomes invaluable to content area teachers. Pearson and Spiro (1982) argued that "schema inadequacies" are responsible for a great many problems in reading comprehension. They noted three types of schema-related problems that can interfere with understanding. The first deals with schema availability. Students may lack the relevant background knowledge and information needed to comprehend

a text assignment. A second schema inadequacy is schema selection. Students who have sufficient background knowledge may fail to bring it to bear as they read. For example, students may comprehend the meaning of the term "metamorphosis" as it applies to the larva of a butterfly, which they learned in science class, but fail to bring that knowledge into use when a Social Studies textbook mentions that a certain culture went "through a metamorphosis" during a given period of time. A third type of schema inadequacy involves schema maintenance. Students may not be aware or skilled enough at recognizing when shifts in schema occur during reading. Determining whether students possess, select, or maintain schema helps the teacher when decisions about content area reading instruction are made. For example, one critical decision involves how much prereading preparation students will need for a text assignment. Another might be to decide how much background building and skill direction will be necessary.

Instruction on how, when, and why to use reading strategies to enhance comprehension has been shown to be beneficial to sixth-graders (Paris and Jacobs, 1984). Three general areas that were presented to subjects dealt with: (1) evaluation of the reading task and one's own abilities; (2) planning to reach a specific reading goal; and (3) regulating reading through the use of monitoring strategies. Subjects received four months of

instruction. Comparisons between pre-tests and post-tests showed that instruction significantly increased students' awareness and their use of comprehension strategies. Baker and Brown (1984) also confirmed that comprehension could be improved via self monitoring techniques. They did note, however, that less experienced and less successful readers tend not to engage in the cognitive monitoring activities characteristic of more proficient readers.

Cohesion in Texts, Prior Knowledge, and Teaching Strategies

Cohesion is the organization (word-to-word, sentence-to-sentence, and paragraph-to-paragraph) in a text (Matthews, 1981). Bobrow and Norman (1975) found that if information which is being processed is consistent with existing schemata, then processing occurs in a top-down framework. However, if incoming information is inconsistent with schemata or if no relevant schema exists, then processing becomes a bottom-up framework phenomenon. Baker (1979) examined the effect of inconsistent material texts. Her results supported Bobrow and Norman's (1975) notion that processing changes when cohesion is interrupted by inconsistency. Baker found several corrective strategies which students used to resolve cohesion deficits, one

of which was to regress and see if they had overlooked a crucial bit of information.

Research (Calkins, 1983) indicates that there are numerous strategies that teachers may incorporate into their lessons which will enhance the ability of the student to comprehend the written material which they confront in the content classroom. Students reading expository material encounter reading problems that are unique when compared to the reading of prose. Metacognitive monitoring, content vocabulary, problem solving, recognizing relations, and even teacher directions have plagued young readers for at least thirty years. While these problems have been recognized for quite some time it seems that teachers simply do not know how, or are not inclined to incorporate needed assistance into their teaching (Mateja and Collins, 1984).

Researchers (Adams et. al., 1982; Shoop, 1982; and Arnold and Ingraham, 1977) have found that students receiving explicit systematic instruction and study-skills training performed better in overall comprehension of social studies material than did controls. Ankeny and McClurg (1981), also using Social Studies materials, employed Manzo's Guided Reading Procedure (GRP), (1975), a systematic instructional procedure, and found that performance on multiple choice tests increased significantly.

Studies grounded in the hierarchical learning of subsuming concepts espoused by Ausubel (1960) have come to the

forefront. Many contemporary researchers have based their studies on prior knowledge (Seidman, 1984; Karahalios et. al., 1979); treating the paragraph as a semantic unit (Colwell, 1982 and Brazee, 1979); summarization (McNeil and Donant, 1984), and text structure itself (Taylor and Beach, 1984) on the idea that concepts may be more easily learned and retained than the mere recalling of literal information. All of the previously cited scholars have found the techniques being studied to be beneficial to the student working with content text while in the classroom. Other instructional techniques which have proved successful in helping students deal with content area text include: précis writing (Bromley, 1985); main idea instruction (Bauman, 1984); SQ3R (Robinson, 1941 and Adams et. al., 1982); and questioning strategies (Raphael, 1984).

Numerous researchers have investigated the apparent lack of organizational aids in many content textbooks (Danner, 1976; Doctorow et. al., 1978; Hershberger and Terry, 1965). These studies have indicated the importance of prominently displayed, frequent topic headings to help students gain knowledge from texts. This apparently is not the case with the texts currently in use (Roller, 1986; and Roller and Schreiner, 1985).

Armbruster and Grudbrondsen (1986) confirmed the previously cited observation when they evaluated six social studies program texts for grades four and six to determine how

much and what kind of reading comprehension instruction was provided in the students' textbook and teachers' editions.

Direct instruction of reading skills was rare; "reading/studying" and "thinking" skills were primarily taught or developed through practice of application of skills that the students had presumably already acquired. The study also revealed a great deal of apparent confusion about what "reading skills" are and what constitutes a legitimate exercise of those skills.

Elliot et. al. (1985) was dismayed regarding the current textbooks on the market. They encouraged publishers to conduct learner verification and revision prior to publication and to change content and approach on the basis of student and instructor feedback.

Summary

This review of literature has established the difficulty connected with reading in the content areas. It has described a type of readability based on textual structure, coherence, and establishment of appropriate knowledge base, rather than word and sentence length used by contemporary readability formulas. Evidence has been presented to support the contention that certain textual features can enhance the reading comprehension of students.

An overview, examining reading in the content areas, was presented which points out the longstanding concern with content area reading and the current practices and attitudes of contemporary schools and instructors.

A discussion of the whole-language approach to reading was presented in which it was noted that a skills approach to reading instruction in the content areas may not be the most practical method of developing reading skills per se. The most practical approach may indeed be a process interactive approach in which the students learn the skills by dealing with the text in authentic classroom activities.

Most importantly, a link was established between schema-theory which keynotes the importance of prior knowledge of the intended audience when dealing with expository text. The importance of students' metacognitive skills was developed to show the need of integration between what the students may know and what they are expected to retain after dealing with content area text.

Further, this review has made note various teaching and instructional strategies. Using strategies, such as; advanced organizers or structural overviews before reading, incomplete outlines or inserted questions during reading, and written responses such as summaries after reading all assume teacher effort and control. Again these techniques may be of the most

benefit to the students if they are presented as part of a strategy which is designed to enhance the retention of content information on the part of the student. That is they become learning strategies versus reading strategies. The crucial issue has to do with transfer. In order for these strategies to be effective for students transfer must take place. Devine (1986) suggests that in order for transfer to take place that regular instruction of the teaching strategies over a long period of time must take place. Also deliberate efforts must be made for transfer. This may best be done if teachers are aware of the importance of the role of schema-theory research and the role of prior knowledge and their effect on comprehension. Texts that are well organized and supply activities and strategies for instructors to use may prove to be the best way for students to gain the knowledge contained in the printed material of the textbooks that are in place in today's schools.

One may conclude from the preceding review of literature that: (1) direct instruction aimed toward student comprehension results in gains for students; (2) the texts used in middle school social studies classes are less than exemplary in their presentation of content; and (3) there is confusion, not only over what constitutes reading skills at this level, but what activities (including exercises), or indeed what approaches to reading are necessary to reinforce these skills.

III METHODS AND PROCEDURES

The purpose of this study was to: (1) evaluate the comprehensibility of grade six Social Studies textbooks, using the Singer Reading Inventory; (2) observe the interaction of students, teacher, and textbooks in a regular classroom setting in an effort to discern the specific strategies employed by instructors which have been identified as promoting comprehension; and (3) evaluate student performance by way of teacher constructed tests, publisher provided tests, or aggregate grades of daily assignments received by the students, covering material used during the observation period.

Content Area Textbooks

The following grade six Social Studies textbooks were evaluated for this study. All are approved by the State of Oregon Textbook Selection Committee.

The World: Past and Present. Harcourt Brace Jovanovich, Publishers: Orlando, Florida. (1985).

The World and Its People: Canada and Latin America. Silver-Burdett: New York. (1984).

Exploring Our World: Eastern Hemisphere. Follett Social Studies Follett Publishing Company: Boston (1977).

It should be noted that the Follett text has received special approval under Law 337.110, *Selection of Substitute or Additional Textbooks* (Circular, 1988). This is because the textbook is not on the current Oregon textbook selection list due to its copyright date (1977).

Site Location and Sample

This study involved the middle schools of three school districts; Philomath SD 17J (Philomath Middle School), Central Linn SD 552 (Central Linn Middle School), and Central SD 13J (Talmadge Middle School). The student enrollment of these schools ranged from 272 to 515. Two schools, Central Linn Middle School and Philomath Middle School, used the 5-8 grade arrangement. Talmadge Middle School used the 6-8 grade arrangement. Each of these schools are located in adjacent counties in Western Oregon.

Philomath Middle School and Central Linn Middle School operated with what would basically be considered a self-contained classroom. That is, all academic subjects were taught by the same instructor. Students did move from the home classroom for subjects such as music, physical education, and art. Talmadge Middle School students had the same instructor for the subjects of Social Studies, Language Arts, and English. Instructors at Talmadge Middle School, therefore, taught two

sections of each of these subjects in the course of the day.

Undergraduate and Post-Baccalaureate students majoring in Elementary Education at Oregon State University were chosen as evaluators of the Social Studies textbooks used in this study.

The students performed the evaluations on a voluntary basis while participating in Elementary Education 350, Elementary Reading Methods. A description of the instrument used and procedures followed by these evaluators will subsequently be discussed in the Collection and Treatment of Data section.

Five teachers were involved in this study. All were regular classroom teachers, with at least seven years of experience. Further reference to the teachers involved in this study will be made on the basis of the textbook which was incorporated within their respective instructional program.

HBJ # 1: Harcourt, Brace, and Javanovich (Central Linn Middle School)

HBJ # 2: Harcourt, Brace, and Javanovich (Central Linn Middle School)

Follett # 1: Follett Social Studies (Talmadge Middle School)

Follett # 2: Follett Social Studies (Talmadge Middle School)

SB # 1: Silver-Burdett (Philomath Middle School)

The classroom subjects in this study were regular, full time students of the middle schools involved in this study. Their placement in a given class was part of the normal assignment which occurred at the beginning of the school year 1988-89. The number of students in the classes ranged from 24 to 28, for a total student population of 119. All classrooms contained a number of Special Education (SPED) students, however it should be noted that the HBJ # 1 classroom contained an inordinate number (45%).

Design of the Study

This study was conducted in three basic phases. Phase one consisted of the evaluation of grade six Social Studies textbooks. The second phase consisted of observation of the actual classroom interaction among teacher, students, and textbooks. Finally, the third phase consisted of an evaluation of achievement based on the students' scores on teacher or publisher prepared chapter tests. Each of these areas of investigation will be more fully discussed in the following section.

Collection and Treatment of Data Collection

Phase One: Textbook Evaluation

Textbooks were evaluated using the Singer Reading Inventory (see Appendix B). This evaluative tool asks 32 questions dealing with five discreet areas; organization, explication, conceptual density, metadiscourse, and instructional devices. Evaluators were given only a brief description of The Singer Reading Inventory. This was done to insure no experimenter bias. Only the results of individuals who did an evaluation of all three textbooks used were included in the tabulation of the overall rating. A total of twelve ($N = 12$) comprehensive sets of evaluations were used.

A comparison of the mean scores obtained from the Singer Reading Inventory was used to evaluate the degree to which the textbooks under consideration are considerate or inconsiderate. A range of 34 to 170 points is possible. A raw score closer to 34 implies the text is considerate; raw scores closer to 170 suggests the text is inconsiderate. The rating of the five subareas is an average ranging from 1 to 5, with 1 representing a positive (strongly agree) rating, and 5 representing a negative (strongly disagree) rating. A rating of three represents a marginal (undecided) opinion of the text.

Phase Two: Classroom Observations

Observations were conducted by the researcher over an eight week period during the spring quarter of the 1988-89 school year. An average of ten class periods were observed for each instructor involved in the study. The focus of the observations followed the format of the Singer Reading Inventory. The areas of: (1) organization, (2) explication, (3) conceptual density, (4) metadiscourse, and (5) instructional devices were considered to be the imperative concerns to the experimenter. Specific instances of pointing out or requiring the use of prior knowledge, colateral information, metacognitive techniques, general organization, and other instructional techniques outlined in the review of literature were of particular interest to the author. Another area of concern was the manner in which the instructors directed the interaction of textbook and student.

This information was collected via written notes made by the author with special notation of the selected occurrences mentioned previously. This information is descriptive in nature noting the use of the theories, textual aids, and instructional strategies employed by teachers and students involved in the study.

Phase Three: Student Achievement

The measurement of student achievement occurred subsequent to the period in which the observations took place. Achievement was measured by the use of teacher prepared or publisher provided end of unit tests. In two classrooms end of unit tests were not given, rather grades were determined by scored activities and worksheets administered throughout the term of study.

While all of the above grading procedures do represent the degree of goal attainment demonstrated by the students involved in the study, a statistical comparison of them is not deemed prudent, in that the material covered by the classes differed as did the construction of the actual test. A nonstatistical comparison of range, mode, and mean of student achievement was made in an effort to determine the degree of goal attainment within a given unit of study.

Hypotheses

Hypothesis one: Social Studies textbooks which are more considerate will result in greater student achievement.

Hypothesis two: Teachers who employ strategies which are of a functional process approach will enhance student achievement in the content areas.

Summary

Grade six Social Studies textbooks were evaluated by undergraduate and post-baccalaureate students using the Singer Reading Inventory. Classroom observations were made by the author of five different instructors using the three textbooks being studied. Student achievement scores were collected from the five classes in an effort to determine the degree of goal attainment in accordance with each of the selected textbooks.

IV PRESENTATION OF DATA

The purpose of this study was to determine if textbook structure along with instructor interaction would affect the achievement of grade six Social Studies students.

Textbook Evaluation

The Singer Reading Inventory was used to evaluate the five basic areas of: organization, explication, concept density, metadiscourse, and instructional devices. The mean results of these measurements, plus an overall rating are included in Table 1 on the following page. These results indicate that Social Studies textbooks selected for this study demonstrated a moderate amount of comprehensibility.

Two areas which were rated the lowest overall were, the appropriate level of conceptual density and the appropriate use metadiscourse features. The fact that the level of conceptual density appears to be a problem is not surprising in light of the research regarding content area studies. Informal interviews, using a specific set of questions as the format, (see Appendix C) were conducted with instructors participating in this study. All of these instructors agreed that reading Social Studies textbooks was difficult for their students, because there is a large amount

**Table 1: Mean Scores for Selected Features Within the Singer
Inventory for Assessing Readability of Textbooks**

Features	Textbook Scores*			
	Harcourt ,Brace, and Jovanovich	Follett	Silver- Burdett	Total Mean
Clearly Organized	1.71	2.08	2.39	2.06
Clearly Explicated	1.69	2.31	2.52	2.17
Appropriate Level of Conceptual Density	2.00	2.45	2.18	2.21
Appropriate use of Metadiscourse Features	1.93	2.30	2.32	2.18
Appropriate use of Enhancing Instructional Devices	2.02	2.11	2.10	2.08
Total Inventory Score	1.87	2.25	2.30	2.1

Range: 1.0 (reflects a positive rating)
5.0 (reflects a negative rating)

of information to comprehend. This concurs with the findings presented in the review of related literature. How instructors attempted to overcome this problem will be dealt with in the following section.

The area of explication was also ranked quite low overall. This is noteworthy, especially in light of the relatively favorable rating the Harcourt, Brace, and Jovanovich textbook received in this area.

The areas of organization and instructional devices received the best total mean rating. The Follett textbook also received its best rating in these areas. While the area of instructional devices in the Harcourt, Brace, and Jovanovich was not one of its top areas of rating, its rating was favorable in comparison to the remaining textbooks. The Silver-Burdett textbook received its most positive rating in the area of instructional devices, however the area of organization was not rated favorably.

The Harcourt, Brace, and Jovanovich textbook received the best rating in each of the five areas of measurement. The Follett text (copyright 1977) attained a ranking in the middle of the Harcourt, Brace, and Jovanovich (copyright 1985) and Silver-Burdett (copyright 1984) texts which are currently on the approved textbook list.

Classroom Observations

Common Classroom Features

While each classroom observed had its own unique atmosphere, there are a number of factors which were common to all or at least several classrooms. First, instructors agreed that the content area of Social Studies was viewed as a difficult and yet mundane topic to their students.

A second characteristic which was present in all classrooms was the act of oral reading of the textbook by students. This was done to different degrees and for different reasons in each classroom, nonetheless, it was a practice common to all classrooms observed.

A third characteristic common to all classrooms was the repetition of material. It must be noted that this was done in numerous different ways by the various instructors involved in this study. The individual differences will be discussed on a classroom by classroom basis in the following sections.

Co-operative learning groups were used in two of the classrooms. This learning arrangement will be discussed on an individual basis in the appropriate following sections.

A final factor common to all classrooms observed was a disruptive and fragmented schedule due to various other

extraneous activities taking place in the middle schools. Among these disruptions were; school wide testing, Outdoor School, assembly programs, et cetera. The instructors involved noted that this occurrence was typically more prevalent during Spring term.

Unique Classroom Features

HBJ # 1

It should be noted at the outset that the HBJ # 1 classroom contained a high number (45%) of students designated as Special Education (SPED) students. This ability grouping is the result of district policy.

The observed sequence of activities for a new unit of study began with students reading orally from the introductory section of the unit under study. Students were chosen at random with no prior prereading preparation. Often the student chosen did not know where they were in the textbook. Attention was generally poor.

Explication was enhanced by instructor to a limited degree. Terms were pointed out or clarified and examples were occasionally provided. Often during the oral reading, students read one after another without any comments or discussion. A great deal of effort was expended, on the part of the instructor, in controlling inappropriate behavior of the students. One situation in which a vocabulary term (rural) was given in the

book, was questioned by a student. The teacher chose not to have the student define this word meaning by way of context clues. Instead, the instructor defined the word for the student and moved on with the activity at hand.

The first day's activity was followed with the writing of two questions accompanied with answers for the next day's class. This assignment resulted in all students returning with answers limited to literal recall questions. The answers to some questions were challenged; the instructor confirmed or corrected the challenges to these questions. The activity of students providing questions, which in most cases, were of the literal recall type, could have been more illustrative of the area of explication contained in the Singer Reading inventory by doing two things. First, the students could have been required to compose one literal question and one inferential question. Second, when the answers to questions were challenged the textbook could have been used to confirm or correct. Theoretically, this would have caused a significant increase in the amount of interaction of the student with the textbook.

The next several days were spent with students working on a "study guide" which consisted of approximately thirty vocabulary terms and short phrases which the students were to complete on an individual basis. The twelve pages covered were noted at the top of the work sheet. At one point the instructor asked a student "Why are you looking in the index? I gave the page numbers where the information can be found." This was a SPED

student who was using textbook features to his best advantage, and was being discouraged from doing it. Later this same student was scanning pages looking for work sheet terms, some of which were in boldface print. He was told not to do this, rather he should "**read**" to find the information. This was a situation where the twelve pages which were designated to contain the information may have seemed a next to impossible task to "read". He was using a textbook which did contain features to make the gathering of information easier, and yet he was being discouraged from taking advantage of these textbook features.

Map skills were worked on during this unit of study. Students were required to estimate distances between cities of the world. The questions on the work sheet typically asked if the distance from one city to another was greater than the distance between two other cities. The author observed several students answering the question without making the estimate. Several students made the comment that the most difficult part was finding the cities in question. The structure of the questions enabled the students to move through the activity without actually finding the cities in question.

The SPED students were dealt with in this class, due to the large number, by doing only a portion of the same assignment as the regular students. This appeared to be a management technique rather than an instructional strategy. A three-level study guide (Vacca, 1986) was not used in this classroom.

The end of unit test was made up of terms and phrases which were part of the "study guide". SPED students were given the same examination, however they were required to answer a lesser number of questions.

HBJ # 2

This classroom employed Team Learning (Slavin, 1986) as an approach to the study of Social Studies. The concept of Team Learning requires the cross ability grouping of five to six students and uses these small study groups as a means to motivate student performance. This method of instruction had only recently been employed by the instructor of this class, and both the instructor and students were in the process of familiarizing themselves with the process.

It seemed apparent, at the outset, that the students enjoyed this type of structure in the classroom. They were eager to begin the day's lesson. Several students asked questions regarding the day's activities, while several individuals gathered to form their study group; all of this previous to the tardy bell sounding. They appreciated the fact that they could use the study procedure of their choice. Evidence of this was the variety of ways they did choose to study. This occurred in spite of the fact that there was a certain amount of quibbling about where they should study (they had a choice), how they should study, who they had to study with, and the varying levels of aspiration.

The instructor did use the opening moments of each class period to instruct the groups regarding the day's activities and a

quick review of the past days activities, thus adding organization to the setting, and clarity in terms of the students' expectations.

An interesting situation observed occurred when students left to their own devices, tended to approach the content in much the same manner as it had been approached when instruction used a whole group design. Students were assigned a unit of study and told that they were to cover the material in whatever manner they chose so long as everyone in the group could answer the comprehension questions at the end of their unit upon completion of their study time. One group worked individually, reading silently, then attempting to answer the questions. Another group took turns reading orally to each other, with some members of the group constantly going back to the questions to see if they had been addressed in the section being read. Other groups, merely read the section orally, then answered the questions on an individual basis, not really being concerned with the fact that all students within a given group needed to be responsible for all the comprehension questions. Only one group actually challenged answers which were put forth by other group members, and went to the effort of writing them down.

Test scores for this unit of study were determined both on a group and individual basis. Students were given the same comprehension questions, which they had used as a guide to study, as a group in a closed book test situation. Later in the week they were given the same exam on an individual basis and

the two test scores were averaged. Slavin (1986) has a somewhat more detailed procedure for using group and individual scores as a means to motivate students. These will be discussed in greater detail when unique features of SB #1 are discussed. It should be noted that the instructor did offer rewards of ice cream bars for test performance.

Follett # 1

The textbook used in this class, while not considered as the sole medium of content, was the primary source of information. As noted earlier, this textbook used in the class had a copyright of 1977. Oral reading was a part of the interaction which took place in this classroom; the instructor related prior information and supplemented the reading with collateral information to stimulate discussion after a paragraph or section was read. Students read orally on a voluntary basis.

This class was the only class in which students were required to take written notes on a regular basis. These notes were presented as part of a lecture and were copied by the students from an overhead presentation. The notes were presented in outline form which added structure and coherence to the information given. The written notes also added another source of information which could be used as a reference for study by the students. The instructor was able to assist students in terms of study technique by noting that they should put an asterisk next to the positive contributions of Europeans in Africa

because on the test they would be required to contrast the positive contributions with the negative contributions. This exemplifies a metacognitive approach to learning.

The use of films were also used in this class as an introductory and closing source of information. These video presentations were given a brief introduction and were followed with a ten minute discussion.

Publisher provided work sheets were used on a regular basis in this classroom. These worksheets, in fact, constituted the grades given for the unit of study. No end of unit test was given; this was due in part to the fact that during this observation period there were numerous extracurricular activities that drew a considerable number of students from the class. The instructor felt that it would be unfair to test the students over material with which they had not had an adequate opportunity to interact.

One way in which the instructor dealt with instructional periods in which students were not present during the entire period allotted for Social Studies was a geography game in which group scores were maintained as a motivational feature. Students were instructed, on other days, to complete previous Social Studies worksheet assignments, or to work on any subject they needed to.

The discussion technique was used to a moderate degree in this classroom. Approximately one third of the class period lecture was spent with the instructor asking questions and building on the responses of students. The instructor made an

attempt to relate prior learning to current discussions. For example, students were asked how the revolution in the Soviet Union compared to the revolution in China, which had been previously studied. Further, a deliberate attempt was made to introduce current topics or bits of information which would add dimension and relevancy to the topic being studied. When discussing a time line which ended in the year 1970 the instructor asked: "What events would we need to add to make this time line current?" The instructor constantly previewed and reviewed material being discussed in an attempt to add coherence to the topic of study. The above techniques are representative of explication, specifically colateral knowledge which helps put event in perspective.

Another unique feature of this class is the fact that students were occasionally given writing assignments in their English class using the material covered in Social Studies. These assignments varied, and may have been summaries, descriptive accounts, or compare/contrast endeavors. The instructor stated that due to the amount of the content material covered in Social Studies it was not possible to go through the lengthy process of writing, editing, and rewriting. It was felt that this activity could best be accomplished during the English class period. Activities such as these are illustrative of explication and metacognition.

As noted previously the primary textbook used in this class was relatively old and had received special approval by the Oregon State Textbook Selection Committee. This situation

seemed to increase the effort on the part of the instructor to implement other sources of information by way of using other textbooks, independent map skills, current events et cetera.

The teaching assignment of this instructor was such that two sections of Social Studies were taught. The command of subject matter appeared to be enhanced by this specialization. For example, if a specific event was being discussed about a current topic the instructor would note that a similar event occurred in a unit that would be covered subsequently.

The unit scores for the students in this class were determined by a cumulative grade earned on the various worksheets. These work sheets stressed using charts and graphs, map skills, critical thinking (taking information from two or more sources to reach a conclusion), and vocabulary exercises. Points were also awarded for taking notes, however, an evaluation of the quality of the notes was not considered.

Follett # 2

This instructor used the techniques of relating prior learning and colateral information to the topics being studied to a great degree, which aided in explication and organization. Statements which related to topics being studied in other classes were used to support the topics being studied in the Social Studies classroom. Class sessions usually involved discussions in which the instructor would play the "devils advocate" and challenge the student to support his or her answer with facts and the source of

these facts. The textbook was not the single source of confirmation or rejection of a given premis.

Work sheets were used throughout the unit of study. Students generally had a difficult time completing the assignments promptly. The unit exam was postponed for several days in order to accommodate a number of students who had not completed their daily assignments. Large segments of classtime were used for individual conferences in an attempt to manage the assignments given, and supply any individual instruction which may have been necessary.

During informal interviews this instructor made note of the importance of content area reading skills and the necessity of developing of these skills in middle school students.

The instructor for this class stated that he seldom used publisher tests; if publisher provided tests were used, they were given on an open book basis. This instructor questioned the ability of the students in this class inferring answers when they have so much difficulty finding the literal facts with which to make those inferences.

Silver Burdett (SB) # 1

The instruction of this class was structured and yet it was not subject to a lock step routine. Every class period was introduced by the instructor, first by previewing the topics and activities that would be covered during the current instructional

session, then by reviewing what had been covered during the preceding class periods. Note was also made of long term assignments which were upcoming. Further, an overall schedule of proposed activities was presented to the class at the beginning of each unit as it was introduced. By doing this the students could see the topics to be covered and therefore had a chance to see the relevance of current, specific learning activities and how they could be beneficial in later follow-up activities. When discussing the physical features of Mexico the instructor made note that this information would be beneficial in completing an upcoming worksheet, and that some of the information would certainly be on the end of unit exam.

This classroom used the Team Learning approach (Slavin, 1986). The instructor had employed it during the entire year, however, only in the subject of Social Studies. The rationale for this approach is that the instructor felt Team Learning added an element of uniqueness to the class, and that it was also fitting in terms of developing intergroup and intragroup interaction. This type of interaction, in effect, is a goal of the subject of Social Studies. Further, this Social Studies class met the last period of the day. It followed Physical Education. The interaction allowed by the Team Learning approach is intended to alleviate some of the boredom which can occur in this subject area, at this time of day. The students appeared to be familiar with this type of structure and also appeared to enjoy it. Students entering the room would check the chalkboard to determine the day's activities. They would also inspect the assignment basket to

insure that past assignments were up to date and completed. Study groups were observed meeting prior to class, discussing past performance, or upcoming assignments. Individual groups had been assigned with students of varying abilities as determined by past performance. The members of the groups were periodically reassigned.

The initial unit studied during the observation period began by oral reading. Students were selected on a voluntary basis. Important points were highlighted by the teacher as were vocabulary words which were part of a study guide previously distributed to the students.

An assignment of student generated questions was used as the basis for a "Stump the Teacher" game oriented activity on the following day. These questions, along with answers, were formulated by students on an individual basis. The instructor suggested that students construct the type of questions which would be used on a test. All of the questions were of the literal recall variety. The game was played by students asking questions with the instructor supplying the answer from recall without the use of a textbook. The students (as a whole class) received one point for each question the teacher could not answer, while the instructor received one point for each answer she provided correctly. This was a lively exercise which the students appeared to enjoy. Textbook interaction was enhanced. Students started looking for questions beyond what they had prepared in an effort to "Stump the Teacher". The instructor

won the contest handily to the amazement of the students. An important opportunity was lost when the teacher asked: "Would you like to know how I studied for this game?" It was at this point that the period ending bell sounded and students prepared for departure. The metacognitive technique employed by the instructor was perhaps more important than any of the facts which had been reviewed during the entire class period; a teachable moment lost.

An additional feature which was present in this classroom which was not observed in other classrooms was the use of guest speakers. While studying units covering Mexico and Central America, three individuals representing different countries spoke to the students on separate occasions. Prior to the speakers appearance the instructor questioned the students regarding what their perception of the "stereotype" from a given country would be like. A similar question was put to each of the speakers. This did more to make the students aware of cultural differences and similarities than any other observed activity. This was evidenced in the post discussion, in which the students admitted that the "stereotype" they had envisioned was not supported by their face to face meeting with a native from another country.

A further strategy used by the instructor of this classroom was termed a "study skills" unit. Central America was the unit being studied. Each Learning Team picked one country and was responsible for collecting data, organizing and categorizing data,

outlining information, planning and practicing for a presentation, and finally presenting the information to the remainder of the class. The school librarian visited the class and introduced a large variety of sources which could be used other than the textbooks. Groups visited the library on alternate days. The entire process took approximately ten days.

The effects of Team Learning was most evident during the study and testing sequences. Students used teacher prepared questions to prepare for tests by quizzing each other in a game like situation. In this situation students from different groups were regrouped and competed against each other. Care was taken to ensure that high, medium, and low students were equally represented in the reformed quiz groups. Points were earned by answering questions correctly. These points were brought back to the home group and accumulated throughout a given unit of study.

A weighted scoring technique was used in testing procedures; not in terms of actual grades, rather in terms of bonus points which could be brought back to the Learning Team. Each student had a base score established, either from standardized test scores, obtained the previous year, or unit test scores established earlier in the current year. In this manner, students, regardless of ability level, were able to contribute to the Learning Team score. These scores resulted in prizes provided by the teacher.

Overall, the Team Learning concept used in this classroom appeared to result in an atmosphere which alleviated the day-to-

day management "headaches" and presented the instructor with a situation in which actual instruction could take place. The diversity of activities used in this classroom was enhanced by the structure the Team Learning approach provided.

Summary of Classroom Observations

Table two, located on the following pages summarizes the observations on a classroom by classroom basis.

Table 2. Summary of Classroom Observations**NO = Not Observed****- = Observed Rarely***** = Observed Frequently**

Classroom Strategies	Textbook Used				
	HBJ #1	HBJ #2	FOL #1	FOL #2	SB #1
Organization					
Explained purpose and and sequence of lesson	-	-	*	-	*
Concepts dealt with hierarchically	NO	-	*	-	-
Cohesiveness (concepts tied together)	-	-	*	*	*
Explication					
Ideas presented at appropriate level for students	-	*	-	*	*
New terms defined	-	NO	-	*	*
Examples, analogies metaphors, etc. provided	-	*	-	*	*
Conceptual Density					
Ideas integrated and explained before new ones are presented (examples presented)	NO	-	-	*	*
Appropriate vocabulary load	NO	-	-	*	*

	HBJ #1	HBJ #2	FOL #1	FOL #2	SB #1
Background knowledge provided	-	-	-	*	*
Explanations or theories made explicit	NO	-	-	*	*
Metadiscourse					
Students provided with information on how to learn from text	NO	-	-	-	-
Prior knowledge stressed	NO	NO	*	*	*
Colateral information provided for putting events into context	-	-	*	*	*
Instructional Devices and Strategies					
Guided Reading Procedure	NO	NO	NO	NO	NO
Written summaries	NO	NO	-	NO	-
Paragraph as a semantic unit	-	-	*	-	*
Précis writing	NO	NO	NO	NO	NO
Main idea instruction	NO	-	NO	NO	NO
SQ3R	NO	NO	NO	NO	NO
Questioning strategies	-	-	-	*	*
Team learning	NO	*	NO	NO	*
Miscellaneous worksheets	-	-	*	*	-
Map skills	*	*	*	*	*
Outlining	NO	NO	*	NO	-

Student Achievement

A basic comparison of student achievement is presented by class and textbook in Tables 3 and 4. A wide variation is apparent between HBJ # 1 and HBJ # 2. HBJ # 1 included a large number (45%) of Special Education Students.

Table 3. Student Achievement by Class

Measure	Textbook				
	HBJ # 1	HBJ # 2	FOL # 1	FOL # 2	SB # 1
Mean	59.1	94.21	84.13	79.83	91.96
Range	49	15	26	76	43
High/Low	86/37	100/85	96/70	100/24	100/57
Standard Deviation	15.2	6.8	8.5	21.4	10.6
Count	20	19	24	23	25

Table 4. Student Achievement by Textbook

Measure	Textbook		
	HBJ	FOLLETT	SB
Mean	76.21	82.02	91.96
Range	63	76	43
High/Low	100/37	100/24	100/57
Standard Deviation	21.19	16.13	10.62
Count	39	47	25

A comparison of classroom means, grouped by textbook shows that there was an inverse relationship between the rating of the Singer Reading Inventory and the unit scores attained by the students. The combined HBJ #1 and HBJ #2 student scores are the lowest while the Singer Inventory rated this textbook the highest. Likewise the SB #1 student scores are the highest while the Singer Reading Inventory rated this textbook the least considerate.

The student achievement represented in tables 3 and 4 represent scores attained in a variety of ways. HBJ #1 scores were derived from a test which listed terms and short phrases which the students were required to define. The HBJ #2 scores were a result of answering unit comprehension questions contained in the textbook. Follett #1 and Follett #2 scores were earned from an aggregate of daily assignments completed during the unit of study. SB #1 scores were earned from a teacher constructed test.

Findings

The results of these findings do not support Hypothesis One: Social Studies textbooks which are more considerate will result in greater student achievement.

Hypothesis two: Teachers who employ strategies which are of a functional process approach will enhance student achievement in the content areas; is supported by the findings of this study.

Summary

Chapter IV reviewed the analysis of the selected Social Studies textbooks evaluated using the Singer Reading Inventory. Descriptive data relating to the observations made of five Social

Studies classrooms in Middle Schools was presented. Student achievement was measured and presented.

The results of these findings do not support Hypothesis One: Social Studies textbooks which are more considerate will result in greater student achievement. Hypothesis two: Teachers who employ strategies which are of a functional process approach will enhance student achievement in the content areas, is supported by the findings of this study.

The conclusions related to the data and recommendations for further study will be discussed in Chapter V.

V SUMMARY AND CONCLUSIONS

The central focus of this study was to discern the effects of textbook structure, classroom interaction of instructor, students, and textbooks on the achievement of middle school students in the subject area of Social Studies. The Singer Reading Inventory was used to evaluate three grade six Social Studies textbooks. This instrument was made up of thirty-four questions which measured five areas; organization, explication, conceptual density, metadiscourse features and instructional devices. Undergraduate and post-baccalaureate students majoring in Elementary Education performed the evaluations of the selected textbooks. Observations of five classrooms were conducted over an eight week period by the author in order to determine the types of activities and strategies which instructors employed. Finally, the achievement of the students in these classrooms was determined by collecting unit scores earned during the observation period. These scores were made up of teacher constructed tests, publisher constructed tests, or an aggregate of daily graded assignments.

Interpretation and Conclusions

Phase One: Textbook Evaluation

The results of the evaluation of textbooks to determine the extent to which they are considerate or inconsiderate revealed that the textbooks were moderately readable. These results are contrary to the results which past studies have indicated (Woodward, et. al., 1986; Thorpe, 1986; Wilson and Hamill, 1982; and Roller, 1986). The results of the textbooks' evaluation could be construed as being moderately considerate in terms of the five areas measured. It is interesting to note that the Follett textbook, which was eight years older than the Harcourt, Brace and Javanovich textbook and the Silver Burdett textbook, ranked second in the total inventory score. This indicates that while publishers have maintained that constant attempts are being made to improve the Social Studies textbooks (Tyson-Bernstein and Woodward, 1986), little improvement is actually being made.

The total mean in the subareas of organization and instructional devices, which was rated the highest are not surprising in that these areas have traditionally been a consideration of textbook manufacturers.

The subareas of explication, appropriate level of conceptual density, and appropriate use of metadiscourse features were rated the lowest. The difficulties of conceptual density will most likely continue to be a problem for content area textbooks particularly at the middle school level. The large corpus of knowledge which is thought to be necessary for this age group to attain will not diminish. However, it seems that this problem may be partially overcome by applying organization, explication, and instructional devices within the textbook. The area of explication was ranked quite high in both the Follett and Silver Burdett textbooks. This fact exacerbates the problem of conceptual density by not providing the students with examples, collateral information, and other aids which may make the text more understandable to the students.

Appropriate use of metadiscourse features is perhaps one of the most important areas in which publishers of content area textbooks can make a difference. If students are made aware by the textbook itself that: (1) some parts of the text are more important than others; (2) some sections need to be read more carefully than others; and (3) some features of the textbook are provided for a specific reason, greater comprehension should result. Further, it would seem that the inclusion of metacognitive discourse would result in a greater awareness of

this concept in the instructors, and thus a greater emphasis placed on it by the instructors.

The material contained in a content area textbook is unique, especially when considered from a middle school student's perspective. Authors and publishers must make a continued effort to aid students in developing the techniques and strategies that will enable them to better comprehend the specific content area subject matter. Data from this study indicates that if more emphasis was devoted to this area of concern, instructors would become more aware of the benefits of metacognition on behalf of the students and, therefore, further develop these skills in their classrooms.

Phase Two: Classroom Observations

A characteristic common to all classrooms was the repetition of material. At face value this statement may appear to be a negative criticism of instruction; this would be an erroneous assumption. Each classroom teacher had determined specific facts and concepts beforehand which they thought were imperative to the area of study. Learning does take place through repetition (Burron and Claybaugh, 1974 and Forgan and Mangrum, 1985), however, repetition typically implies boredom.

This was observed to not always be the case. Successful instructors found different formats for presenting the material which demanded that students rely on previously learned material, or, in some cases, arenas were provided for students to apply information in different ways. The data indicates that those instructors which used a functional process approach were the most successful. The teaching of reading skills per se was not necessary, however, activities which necessitated the interaction of students with textbooks, instructors, and other students did improve the academic performance of the students involved in this study. These conclusions are in agreement with previous findings (Taba, 1965).

Several classrooms implemented the strategy of students constructing questions from the textbook material. The review of literature showed that this activity can increase student interaction with the text and increased comprehension of the material covered, however, all of the questions developed by the students were observed to be of the literal recall type. This could have been more illustrative of the area of explication contained in the Singer Reading inventory by doing two things. First, the students could have been required to compose one literal question and one inferential question. Second, when the answers to questions were challenged the textbook could have been used to confirm or correct. Research has shown that these

modifications would have caused a significant increase in the amount of interaction of the student with the textbook (Vacca and Vacca, 1989).

The practice of oral reading, which was an activity present in every classroom observed, has received a great deal of criticism in the past, when considered in terms of the Reading classroom (Harris and Sipay, 1975). This researcher feels that, based on data identified in this study, this practice can be used with beneficial results if certain techniques are adhered to. First, oral reading must be used sparingly. This was the situation in most classrooms observed. Typically, oral reading was observed during the introductory portion of a new unit of study. Second, students when required to read orally, should always have had a chance to prepare and preread the material. This was not the case in the observations made. Finally, and most importantly, instructors need to follow-up, or preceed, each paragraph or section read by a discussion. This discussion should be led in such a way that it, activates students' prior knowledge, brings up colateral information which puts events and places into perspective, and clarifies any misconceptions on the part of the students. This final technique was used in some classrooms to the benefit of the students involved. The achievement of the students in classes in which cohesiveness, colateral information, and prior knowledge were stressed by the instructor, scored higher on the achievement instruments

employed in this study. It typically led to lively discussions and pertinent questions from the students, and further, it was beneficial in terms of maintaining student attention and interest.

The interactive instructional model of reading (Dreher and Singer, 1989) encourages the teacher to act as a professional in the face of pressures to be a manager. The teacher plays a central role in determining the goals, materials, and methods of instruction. This study has made note of the demands of scheduling, grouping, and other extraneous factors in which the instructor does not have an adequate amount of input. Not only the difficulty of intellectual tasks, but social development of students often make classtime a period of management versus teaching. These factors result in the instructor being forced to manage rather than being involved in the art and science of teaching. This situation was observed to at least some extent in all of the classrooms observed. Teachers often, through no fault of their own, are forced to "push" through material, and at the same time fail to incorporate proven learning strategies because they have become locked into a routine of "getting through the material". This situation appears to become more critical when an exemplary textbook is used in the classroom; the instructors rely too heavily on the textbook to provide the content rather than using as many devices and strategies as possible to promote concept development regarding the study of Social Studies.

This study concurs, with a study by Shannon (1987) in which he contends that teachers are increasingly becoming "activities managers" rather than professionals who make decisions. A crush of extraneous activities infringe on instructional time. There is a press of activities going on which mitigate the actual time and process of teaching social studies. A comment overheard in several classrooms as students entered the room was: "What period is this?" One has to conclude that a student does not have a very good chance of being prepared for a class, if indeed, he or she does not know the class in which they are about to participate! All too often, once instructional groups are formed and organizational patterns are established, many instructional decisions focus on task completion and on maintaining student attention rather than on issues of content and student understanding. The high number of worksheets used in the observed classrooms confirms the above contention by Shannon (1987). This is not to say that the teaching of Social Studies is not taking place, it is. However many of the textbook features are not being taken advantage of, nor are many of the proven strategies, such as structured overview, précis writing, SQ3R, et cetera, being employed. That is to say, while the teaching of Social Studies is taking place, the teaching of **Reading** (or learning through student-textbook interaction) of Social Studies is not taking place! Indeed, in several instances

proper reading strategies used to collect information from the textbook, on the part of the student, were discouraged by the instructor.

An interactive instructional model is descriptive of the schema theoretic or interactive view of reading. It also supports the functional process approach to learning content material. According to this view, meaning does not reside in the text waiting for readers to extract it. Instead, it is now generally accepted that readers must use their own resources, such as prior knowledge, to interact with text information in order to construct meaning; the text is seen as providing clues for this construction of meaning (Pearson, 1985).

Teachers who could be convinced to use the interactive instructional model for reading and learning from text would recognize their own effect on the reader, the text, and the goal of the reading process *and* the reciprocal influence of the reader, the text, and the goal of the reading process on the teacher (Singer, 1987). A teacher may select a particular area of emphasis to build upon the strengths of a textbook or to compensate for its weaknesses. Moreover, a teacher's decisions will be influenced by his or her knowledge of the resources (prior knowledge) students do, or do not have.

Observations made during this study suggest that reading instruction based on the interactive instructional approach

would make a difference in students' performance. Moreover, Duffy, Roehle, and Putman (1987) report research in which teachers were trained to make their own instructional decisions. These teachers were able to produce significantly better reading achievement for their low reading groups than were teachers who taught control groups "by the book". What the trained teachers learned was to reorganize, modify, or replace the packaged lessons according to their own instructional purposes. In the study conducted by this researcher this type of reorganization and modification occurred in some instances, nevertheless, some teachers used the textbook as the sole source of information and relied heavily upon its format and questions as the basis for their instructional routine. Further, the data collected in this study revealed that some teachers are not **aware** of the benefits of textbook structure. There appears to be a small number of teachers using techniques which enhance the features included in the text, and instructional strategies included in the review of literature. This seems to be the result of a lack of awareness, or a lack of being convinced of the potential value of these text features and instructional strategies on the part of the teacher. (This is a problem which needs to be dealt with at the preservice level, ideally; or at the inservice level as a second resort.)

Further evidence of management versus instruction is seen in the fact that very little writing took place in the observed

classrooms. Research has shown that writing is a valuable tool for the students to use in the organization and retention of content material (Butler and Turbill, 1984 and Smith, 1982). The time consuming activity of editing and grading written assignments seemed to be displaced by worksheet activities. Only one classroom used outlining as a regular part of class structure. In this instance students copied the outlined notes prepared by the instructor. The use of written notes, even though they were merely copied, is viewed by this researcher as a positive instructional strategy. It provides one more mode for retaining information, and is supported by other researchers (Calkins, 1983 and Langer, 1986).

The observations of this study would indicate that the Team Learning approach would be one way to address the problems of management versus instruction. In each of the classes which used this approach the instructor had more time to interact with students in an instructional manner than in the other observed classes. Further, a greater amount of constructive interaction was observed to take place between students and textbooks and between the students themselves.

Another characteristic which seemed to permeate through the classrooms, where the Team Learning approach was being implemented, was the responsibility toward learning the material which individuals developed. This motivational

phenomenon seemed to occur due to the fact that an individual did not want to disappoint other team members; a cooperative atmosphere was thus maintained in the classroom.

Phase Three: Student Achievement

The results of this study indicate that an inverse relationship exists between a high rating on the Singer Reading Inventory and student achievement as determined by the teacher selected instruments used to measure achievement. This is true when the textbooks are considered on an aggregate basis. This occurrence, while unexpected may be interpreted in several ways. The subjective nature of exams and overall grading procedures used by individual instructors forces one to view these results within a critical manner. One may conclude that the instruction provided by the teacher outweighs the source of content information contained in the textbook. Nevertheless, one must be cognizant of the differing levels of expectation placed on the students by the instructors. Another mitigating factor is the type of information which the instructor deems relevant.

When the academic achievement is considered on a class by class basis, it is interesting to note that the highest performance was attained by the two classes which used the Team Learning

approach. As stated earlier, this may be a result of instructors being released from management requirements, and thus being given more opportunity to interact in an instructional manner.

It should also be noted that the very low scores of the HBJ # 1 class may be attributed to the large number of Special Education students contained in that class. This situation resulted in an instructor who had training in Special Education not being given a chance to use this training, due to being placed in an unculpable position. The number of students who needed individual assistance was so great that it allowed the instructor no other option than to manage, rather than teach.

Results of Data Analysis

Hypothesis one: Social Studies textbooks which are more considerate will result in greater student achievement. This hypothesis was rejected. The achievement of students was inversely related to the results of the evaluations of the textbooks as determined by the Singer Reading Inventory. The rejection of this hypothesis must be qualified in terms of the content of the subareas which the Singer Reading Inventory measured, and the type of information the student had to acquire in order to perform well academically. Basically,

students needed to retain literal information in order to perform well on the tasks which were used to identify academic achievement.

Hypothesis two: Teachers who employ strategies which are of a functional process approach will enhance student achievement in the content areas. This hypothesis was retained. This finding may be partially explained by considering the possibility that some classroom instructors compensate for the inadequacies of textbooks by providing more effective strategies and activities, which enhance the interaction of information exchange within the classroom.

Conclusions

The three research questions generated by this study were:

1. Are current sixth grade social studies textbooks clearly written? Are the textbooks considerate or inconsiderate in nature? How readable are they?
2. Are suggestions for helping students acquire and extend relevant prior knowledge being made in the classroom in an effort to make the information contained in the textbook more germane to the goals of instruction?

3. Do chapter test scores reflect an appropriate degree of goal attainment as determined by the individual classroom teacher and effected by the student, teacher, and textbook interaction?

First, the data collected in this study reveals that textbooks were readable. There are subareas, as measured by the Singer Reading Inventory, which could of course be improved. However, the data implies that textbooks did provide a reasonable amount of support, and were a viable source of information to the students at the middle school level.

The second research question is more difficult to answer. It involves two parts. Some instructors were using techniques which assisted students in acquiring and extending relevant prior knowledge. Nevertheless, this was seldom done within the context of helping the textbook become a more useful tool for the students to use. Instructors tended to deal with the textbooks used in their class with a shortsighted approach. That is, they did not seize opportunities to use the textbook as an instructional tool because they found it more efficient to "hand" the information directly to the student. This information ultimately improves the performance of the student in terms of end of unit exams, but does not serve the students well, in terms of assisting that student in understanding the complexities

involved with retrieving and retaining information from the textbook. The actions of the instructors seemed to imply that they (the instructors) will always be available to the student to assist them in gleening information from the content textbook. A better understanding of the whole language approach to reading in which reading instruction is an integral part of the learning process of the content area would serve the students in a more beneficial manner.

The final problem is that of the unit scores derived from this study. There is doubt that these scores truly represent the areas which the Singer Reading Inventory attempts to measure. The information which the students were required to retain in order to perform well in terms of academic achievement was generally literal recall, and was superficial in nature. The areas which were truly under investigation, such as metacognition, and use of prior knowledge, while of a more general nature, were nevertheless more difficult to measure, and in fact were not measured by the types of tasks required in order to excell in terms of academic achievement. The concepts of problem solving and critical thinking which may well lead to a more complete understanding of Social Studies were not dealt with to a great degree. Indeed, if they were, they tend not to be the type of concepts that were measured by a paper and pencil exam. Activities which place students in a situation where

critical thinking and problem solving would be necessary were not part of the observed curriculum in the classes involved in this study.

Recommendations for Further Study

Further research is needed to ascertain the potential impact of the types of interactions which take place among textbooks, students, and teachers. The results of this study indicate several areas which should be addressed in follow-up studies.

This study focused on the textbook. While making observations in the classroom, it was the intent of the author to note the interaction among textbook, teacher, and student. A similar study which would focus more directly, and in greater depth, on the interactions of the student with the textbook only, would be appropriate. Data from the classroom observations indicate that actually very little interaction between the student and the textbook takes place. Interviewing students in terms of what attack skills they used to retrieve information, how they went about studying, and if they were aware of the benefits of various textbook structure devices, may shed further light on the findings of this study. This research was concerned with actions the teacher initiated to enhance textbook features and promote student textbook interaction versus the actual interaction of student and textbook.

A subsequent study in which a group of teachers, in an experimental study, would receive inservice instruction regarding the benefits of textbook structure and specified instructional strategies contrasted to a group of instructors who had not received this instruction may prove beneficial to the corpus of knowledge in this area of investigation.

Finally the question of testing, certainly needs to be more closely examined. A follow-up study which would evaluate the Essential Skills of Social Studies which are currently being developed by the State of Oregon, may solve the subjectivity present in the scores employed to measure the academic achievement of students which was used in this study.

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APPENDICES

APPENDIX A

DEFINITION OF TERMS

Reading skills: the use of psychomotor, cognitive, and affective processes to suit the readers' purpose(s) in an effort to comprehend a graphic communication (Harris and Hodges, 1981, p. 264).

Study skills: a general term for those techniques and strategies which help a person read or listen for specific purposes with the intent to remember. *Note:* Although reading specialists may differ in terms of the specific skills to be included, study skills commonly include following directions; locating, selecting, organizing, and retaining information; interpreting typographic and graphic aids; and reading flexibility (Harris and Hodges, 1981, p. 314).

Study strategy or technique: a systematic process for the intensive study of a selection for retention and recall. SQ3R is a *study strategy* (Harris and Hodges, 1981, p. 314).

Relevant subheadings: a division of a larger topic or heading which is congruent with preceding or succeeding headings and subheadings (Harris and Hodges, 1981, p. 315).

Contextual clues: an item of information from the immediate setting in which a word or group of words occurs, as surrounding words, phrases, sentences, illustrations, syntax, typography, etc., that might be used to help determine the meaning and/or pronunciation of the word or word group in question (Harris and Hodges, 1981).

DRL: directed reading lesson. There are three parts to a DRL: readiness, in which the instructor establishes purpose; guided reading, in which the instructor prompts and active response to reading; and extension, in which reinforcement and extension of ideas from the text are attended to. A DRL may not take place during one day. An important aspect of the DRL is that readers need varying degrees of guidance (Vacca, p. 30, 1981).

Word attack: word analysis or word identification (Harris and Hodges, 1981).

Adjunct aid: any kind of stimulation that facilitates learning from texts (Vacca, p. 18, 1981).

Critical reading: the evaluative aspect of reading. Among the identified skills of critical reading involved in making judgments are those having to do with the author's intent or purpose; with the accuracy, logic, reliability, and authenticity of the writing; and with the literary forms, components, and devices identified through literary analysis (Harris and Hodges, 1981, p.74).

Problem solving: the process of selecting appropriate behaviors for reaching desired goals (Harris and Hodges, p. 250, 1981).

Relationship of ideas: the way in which thoughts are put together or patterned. *The identification of such relationships of ideas as cause/effect, sequence, and whole/part is essential for adequate comprehension* (Harris and Hodges, p. 276, 1981).

Prior knowledge: all the knowledge of the world readers have acquired through their lives (Devine, p. 18, 1986).

Summary: a brief statement which contains the essential ideas of a longer passage or selection (Harris and Hodges, p. 316, 1981).

Preview: a survey to get an overview of something that will be read or viewed later in a different way (Harris and Hodges, p.248, 1981).

Structured overview: a form of cognitive organizer in which important concepts of a topic or unit of study, as reflected in its vocabulary, are identified and made into a visual pattern that may be used to anticipate, revise, and confirm relationships among the concepts (Harris and Hodges, p.313, 1981).

Study guide: a set of suggestions designed to lead the student through a reading assignment by directing attention to the key ideas in a passage and suggesting the application of skills needed to read a passage successfully Harris and Hodges, p. 313, 1981).

Précis: a concise written summary of the essential ideas in something read (Harris and Hodges, p. 246, 1981).

Inconsiderate text: inadequate information given (Alverman, 1983).

Main idea: the central thought or meaning of a passage (Harris and Hodges, p. 188, 1981).

Textbook: a book on a specific subject matter used as a teaching-learning guide, especially in schools and colleges (Harris and Hodges, p. 328, 1981).

Text signal: any typographical device, as italics or boldface, special symbols or heading, or special format arrangements used to call the reader's attention to desired aspects of written material (Harris and Hodges, p. 328, 1981).

Text (structure) analysis: the analysis of the structural characteristics of text, as coherence, hierarchical organization, propositional density, etc., as they relate to comprehensibility (Harris and Hodges, p. 328, 1981).

Cause/effect relationship: in a communication, a stated or implied association between some outcome and the conditions which brought it about (Harris and Hodges, p. 45, 1981).

Whole/part relationship: an association, stated or implied in a communication, between a general idea and one or more specific ideas included in the general idea (Harris and Hodges, p. 354, 1981).

Sequential relationship: an association, stated or implied in a communication, of successive order among ideas and/or events (Harris and Hodges, p. 293, 1981).

Persuasion: the intent to influence the reader to believe or do as the author suggests (Harris and Hodges, p. 235, 1981).

Advanced organizer: a learning strategy developed by D. Ausubel in which a passage is written to enhance the learning of other material and is presented prior to the other material. *Note:* The advance organizer may be written to draw parallels between something the reader already knows about and the new material; or, it may restate the new material at a different and often higher level of abstraction, generalizability, and inclusiveness (Harris and Hodges, p. 8, 1981).

Reading comprehension: understanding what is read (Harris and Hodges, p. 266, 1981).

Literal comprehension: identification and understanding of information gained from the printed page (Vacca, p. 120, 1981).

Interpretive (inferential) comprehension: perceiving relationships that are gained at the literal level of comprehension, and conceptualizing the ideas formulated by those relationships (Herber, p. 45, 1978).

Applied comprehension: using information gained from the literal and interpretive levels to express opinions and form new ideas (Vacca, p. 120, 1981).

Readability: ease of understanding or comprehension because of style of writing. Many variables in text may contribute to readability, such as format, typography, content, literary form and style, vocabulary difficulty, sentence complexity, idea or proposition density, cohesiveness, etc. Many variables with the reader also contribute, such as motivation, abilities, and interests (Harris and Hodges, p. 262, 1981).

Readability formula: any of a number of objective methods of estimating or predicting the difficulty level of reading materials, determined by analyzing samples of the materials and usually expressed by means of a reading grade level. Word length of familiarity and average sentence length in words tend to be the most significant and/or convenient predictors of the reading difficulty of materials as measured by readability formulas (Harris and Hodges, p. 263, 1981).

Basal reading program: a comprehensive, integrated set of books, workbooks, teacher's manuals, and other materials for developmental reading instruction, chiefly in the elementary and middle school grades (Harris and Hodges, p. 30, 1981).

Understandability: the information needed to understand or comprehend information presented in text. It is a relationship between students' own schema and conceptual knowledge and the text information (Vacca and Vacca, p.45, 1986).

Usability: deals with the presentation and organization of text. It answers the question: "Is the text coherent, unified, and structured enough to be usable by the intended audience?" (Vacca and Vacca, p. 46, 1986).

Interestability: is intended to ascertain whether features of the text have appeal for a given group of students (Vacca and Vacca, p. 46, 1986).

APPENDIX B

Singer Reading Inventory

Publisher _____

Name of Text _____

Name of Evaluator _____

Directions: Read each criterion and judge the degree of agreement or disagreement between it and the text. Then circle the number to the right of the criterion that indicates your judgment.

- 1 SA = Strongly Agree**
2 A = Agree
3 U = Uncertain
4 D = Disagree
5 SD = Strongly Disagree

I. ORGANIZATION	SA	A	U	D	SD
1. The introduction to the book and each chapter explain their purpose.	1	2	3	4	5
2. The introduction provides information on the sequence of the text's contents.	1	2	3	4	5
3. The introduction communicates how the reader should learn from the text.	1	2	3	4	5
4. The ideas presented in the text follow a unidirectional sequence. One idea leads to the next.	1	2	3	4	5
5. The type of paragraph structure organizes information to facilitate memory. For example, objects and their properties are grouped together so as to emphasize relationships.	1	2	3	4	5

	SA	A	U	D	SD
6. Ideas are hierarchically structured either verbally or graphically.	1	2	3	4	5
7. The author provides cues to the way information will be presented. For example the author states: "There are five points to consider."	1	2	3	4	5
8. Signal words (conjunctions, adverbs) and rhetorical devices (problem-solution, question-answer, cause-effect, comparison-contrast, argument-proof) interrelate sentences, paragraphs, and larger units of discourse.	1	2	3	4	5

Discourse Consistency

9. The style of writing is consistent and coherent. For example the paragraphs, sections, and chapters build to a conclusion; or they begin with a general statement and then present supporting ideas; or the text has a combination of these patterns. Any one of these patterns would fit this consistency criterion.	1	2	3	4	5
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Cohesiveness

10. The text is cohesive. That is, the author ties ideas together from sentence to sentence, paragraph to paragraph, and chapter to chapter.	1	2	3	4	5
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II. EXPLICATION**SA A U D SD**

- | | | | | | |
|---|---|---|---|---|---|
| 11. Some texts may be read at more than one level, e.g. descriptive vs. theoretical. The text orients students to a level that is appropriate for the students. | 1 | 2 | 3 | 4 | 5 |
| 12. The text provides reasons for functions or events. For example, the text, if it is a biology text, not only lists the differences between arteries and veins, but also explains why they are different. | 1 | 2 | 3 | 4 | 5 |
| 13. The text highlights or italicizes and defines new terms as they are introduced at a level that is familiar to the students. | 1 | 2 | 3 | 4 | 5 |
| 14. The author uses examples, analogies, metaphors, similes, personifications, or allusions that clarify new ideas and makes them vivid. | 1 | 2 | 3 | 4 | 5 |
| 15. The author explains ideas in relatively short active sentences. | 1 | 2 | 3 | 4 | 5 |

III. CONCEPTUAL DENSITY

- | | | | | | |
|--|---|---|---|---|---|
| 16. Ideas are introduced, defined or clarified, integrated with semantically related ideas previously presented in the text, and examples given before additional ideas are presented. | 1 | 2 | 3 | 4 | 5 |
| 17. The vocabulary load is appropriate. For example, usually only one new vocabulary item per paragraph occurs throughout the text. | 1 | 2 | 3 | 4 | 5 |

	SA	A	U	D	SD
18. The text provides necessary background knowledge. For example, the text introduces new ideas by reviewing or reminding readers of previously acquired knowledge or concepts.	1	2	3	4	5
19. The explanations or theories that underlie the text are made explicit, e.g. Keynesian theory in an economic text or Skinners theory in psychology texts.	1	2	3	4	5
20. Content is accurate, up-to-date, and not biased.	1	2	3	4	5

IV. METADISCOURSE

21. The author talks directly to the reader to explain how to learn from the text. For example, the author states that some information in the text is more important than other information.	1	2	3	4	5
22. The author establishes a purpose or goal for the text.	1	2	3	4	5
23. The text supplies colateral information for putting events into context.	1	2	3	4	5
24. The text points out relationships to ideas previously presented in the text or to the reader's prior knowledge.	1	2	3	4	5

V. INSTRUCTIONAL DEVICES

25. The text contains a logically organized table of contents.	1	2	3	4	5
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	SA	A	U	D	SD
26. The text has a glossary that defines technical terms in understandable language.	1	2	3	4	5
27. The index integrates concepts dispersed throughout the text.	1	2	3	4	5
28. There are overviews, preposed questions or graphic devices, such as diagrams, tables, and graphs throughout the text that emphasize what is to be learned in the chapters or sections.	1	2	3	4	5
29. The text includes marginal annotations or footnotes that instruct the reader.	1	2	3	4	5
30. The text contains chapter summaries that reflect its main points.	1	2	3	4	5
31. The text has problems or questions at the literal, interpretive, applied, and evaluative levels at the end of each chapter that help the reader understand knowledge presented in the text.	1	2	3	4	5
32. The text contains headings and subheadings that divide the text into categories that enable readers to perceive the major ideas.	1	2	3	4	5
33. The author provides information in the text or at the end of the chapters or the text that enable the reader to apply the knowledge in the text to new situations.	1	2	3	4	5
34. The author uses personal pronouns that make the text more interesting to the reader.	1	2	3	4	5

APPENDIX C**Background Information****NAME** _____**SCHOOL** _____**TEXTBOOK USED** _____

1. Number of Years teaching: _____
2. Number of years teaching middle school Social Studies: _____
3. Do you consider Social Studies an area of expertise? _____
4. Degree held: _____
Additional Graduate Hours: _____
5. Do you enjoy teaching at this level?
6. Do you enjoy teaching Social Studies?
7. What are your feelings regarding the Social Studies textbook which you use in this class?
8. What do you think your student's opinions regarding this textbook are?
9. What are the textbook's major strengths and weaknesses?
10. Does the format of the text or the text in general, influence your approach to teach from it? If so, how?
11. What are your feelings about content area reading skills and instruction?