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THE EFFECT OF READING INTEREST ON COMPREHENSION OF EXPOSITORY MATERIALS
WITH CONTROLS FOR PRIOR KNOWLEDGE

THE UNIVERSITY OF ARIZONA

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THE EFFECT OF READING INTEREST ON
COMPREHENSION OF EXPOSITORY MATERIALS WITH
CONTROLS FOR PRIOR KNOWLEDGE

by

Gary Nakamura Osako

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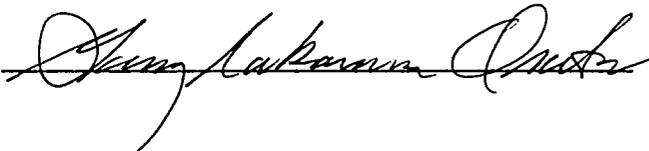
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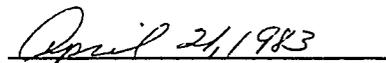
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ABSTRACT

The purpose of this study was to examine the relationship between reading interest in a topic and comprehension of an expository passage about that topic while controlling for the factors of reading ability, gender of the subjects, and prior knowledge about the topic.

Ninth grade students (n = 184) with average and above reading ability from a large, suburban high school were asked to rate their interest in four expository text topics. Prior knowledge of the topics was also surveyed. Each subject read passages controlled for readability, followed by ten multiple-choice comprehension questions for each topic.

Multiple regression data analyses were performed for each of the topics. Results indicated that topic interest significantly affected the comprehension of only two of the passages and only to a small degree. Interactions among or between variables studied were not significant.

Major conclusions drawn from the study included: a) interest effects are topic specific; b) interest may not be a significant factor affecting reading comprehension in school-like settings for average and above average readers; and c) text difficulty may interact with both interest and comprehension. The results of the study implicated text characteristics and other factors affecting interest and comprehension, and measurement issues for further study.

CHAPTER 1

INTRODUCTION

It is generally assumed that interest in a subject aids our understanding of it. John Dewey (1913) even went so far as to assert that interest is just as necessary as effect in gaining understanding. This relationship between interest and understanding seems obvious and sensible. Reading comprehension, the understanding of meaning from print, it has been assumed, is closely linked to reading interests.

The assumption that reading interest affects comprehension was long taken for granted. Early research on reading interests generally accepted as axiomatic the interest-comprehension relationship. A specific line of educational research into the relationship was begun by Bernstein (1955). Since then several researchers and writers (Shnayer, 1969; Estes & Vaughan, 1978; Belloni & Jongsma, 1978; Asher, 1980), have substantiated the strength of the interest-comprehension relationship found in her pioneering research.

Despite the research findings linking interest and comprehension, Pearson and Johnson (1978) were concerned that the research had not sorted out the influence of prior knowledge. "[D]o students better comprehend passages of high interest because of the motivational value of a personally interesting topic or because they know more about topics for which they indicate a high interest?" This question provided the impetus for the present study.

The purpose of this chapter is to introduce and provide the background of the study. First, it presents the research questions and the significance of the study. Next, the assumptions and limitations of the study are specified. Finally, the terms used in the study are defined.

Statement of the Problem

The present investigation attempted to examine the following questions:

Is there a significant relationship between reading interest and comprehension of expository materials read by ninth grade students when reading ability, gender of the students, and prior knowledge of the topics of the materials have been controlled?

Are there significant interactions among or between the independent variables of reading interest, reading ability, gender of the students, and prior knowledge of topics as they relate to the dependent variable of comprehension of expository materials read by ninth grade students?

Significance of the Study

The research examining reading interests has undergone great changes since the very early part of this century. At first, research was merely descriptive--determining the reading interests of children and adults. Descriptive research still continues and the insights generated about reading interests are valuable to educators and publishers alike.

Correlates of reading interest have enjoyed much scrutiny as well. In the beginning, intelligence as related to reading interests was examined by several researchers. This later gave way to examining the relationship of interest with reading ability. Age and gender of readers have also proven to relate with reading interest. Socio-economic background, and later ethnic background were studied. Methods of measuring interest have been quite varied and validation studies of several methods have been conducted.

It was not until about thirty years ago that the first study of the relationship between reading interest and reading comprehension was conducted by Bernstein (1955). Subsequent research by Shnayer (1969), Estes & Vaughan (1973), Asher & Markell (1974), Asher, Hymel, & Wigfield (1978), and Belloni & Jongasma (1978), corroborated the findings of a positive relationship between interest and comprehension.

Two factors seem to interact with interest in affecting reading comprehension: reading ability and gender of the subjects. While the interactions have appeared frequently in the studies cited above, they do not appear in all the studies. This curious situation prompted the inclusion of these two factors as independent variables in the present study for further investigation.

The advent of schema theory in the past decade and research relative to prior knowledge effects on comprehension have raised concern that prior knowledge had confounded the results of the interest-comprehension research. People tend to know more about topics in which they are interested. And, likewise, people tend to be interested in topics in which they know more about. Attempts have been made to

evaluate the separate contributions of interest and prior knowledge. The interest research of Asher (1980) was inconclusive in this area. Studies conducted by Weber (1979) and Entin (1980) both indicated a small but significant amount of variance accounted for by the interest factor apart from the amount accounted for by prior knowledge.

While the studies of Weber (1979) and Entine (1980) indicated evidence of the effect of interest apart from prior knowledge, both used undergraduate college volunteers as subjects in their research. The present investigation studied the interest effect in ninth grade students in intact classrooms. It was believed that a study with these subjects would produce results with implications for classroom reading practices.

The measurement of comprehension is a second significant aspect of this study. Most of the interest research has employed the Cloze procedure to measure comprehension. The Cloze procedure requires subjects to supply an exact replacement or a synonym for every nth word in a reading passage. While studies demonstrating its validity in measuring comprehension are numerous (McKenna & Robinson, 1980), recent criticism has called into question its effectiveness (Alderson, 1978; Shanahan, Kamil, & Tobin, 1982). The Cloze procedure does not measure whether students are able to determine the main idea or gist of the reading passages nor the author's purpose. A traditional multiple-choice format was used to measure comprehension and to probe these areas. Further, since most classroom measures of comprehension normally involve a question and answer format rather than Cloze, the

multiple-choice comprehension instrument was considered to be more ecologically valid.

It seemed worthwhile, therefore, to conduct an investigation of the effect of reading interest on the comprehension of expository materials read by ninth graders while controlling for the effect of prior knowledge. Comprehension would be measured using a multiple-choice instrument. Additionally, the inclusion of reading ability and gender of the students was made to check for possible interaction.

Assumptions Underlying the Study

Underlying the present study were several assumptions necessitated by the data analysis procedures to be used and generalizability of the findings.

1. The population from which the sample was drawn is typical of American ninth grade high school students who have average or above reading abilities.
2. The expressed reading interests of ninth grade students accurately reflects their true reading interests.
3. The measure of prior knowledge accurately describes the relative amount of prior knowledge of topics that the subjects have.
4. The expository text passages selected for use in the study are typical of materials encountered by ninth grade students.
5. The comprehension questions accurately measure understanding of the reading passages.
6. Reading ability scores reported accurately reflect the actual ability of the subjects.

Limitations of the Study

This study was subject to the following limitations:

1. Administration of the research instruments was restricted to subjects in available classrooms in the Amphitheater School District in Tucson, Arizona.
2. Administration of the research instruments was restricted to ninth grade high school students with average or better reading ability.
3. The sample of reading passages administered to students was restricted to expository materials.
4. The sample of four reading passages administered to students did not cover the entire range of expository materials available to students.

Definition of Terms

Throughout this study the following definitions apply:

1. Comprehension: obtaining and understanding the meaning of written discourse.
2. Expository Materials: written discourse that is principally intended to inform or explain, in contrast to narrative materials.
3. Prior Knowledge: facts and concepts previously learned by a person.
4. Reading Interest: tendency to respond positively to topics of written discourse.
5. Written Discourse: language appearing in print or writing.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter reviews the literature related to the issues of reading interest and its effect on comprehension. First, a historical overview of the studies conducted on reading interests will be presented. Following this will be an examination of the studies that particularly investigated the relationship of reading interest and comprehension. Then, a review of the issue of prior knowledge effects on comprehension of text will be given. Next, studies that attempted to control the effects of prior knowledge in the interest-comprehension relationship will be reviewed. Concluding the review of literature will be an examination of the issues of the measurement of interest, prior knowledge, and comprehension. Finally, a short summary of the chapter will be presented.

Historical Overview

Concern about the reading interests of young people, as well as adults, has long been the subject of scrutiny of educators and publishers. Educators seeking inducements to the process of learning to read have tried to match the interests of young people to the materials to be read. Barbe (1963, p. 490) has stated, "The importance of the interest factor in the reading program must not be minimized, for it is the keystone of the child's learning." The publishing community seeks to learn the interests of prospective readers in order to improve sales (Kline, 1980).

This section of the review of literature presents a historical overview of the research related to reading interests. Two broad areas of concern will be discussed. First, the early studies focusing on descriptive research will be presented. Then, correlational research involving reading interests will be discussed.

Early Descriptive Research of Reading Interests

The early studies of reading interests were chiefly concerned with simply describing reading interests. Terman & Lima (1925) conducted an extensive study of 2,000 average and gifted students, ages 6 - 16. They examined reading habits and interests in order to develop a book-list of popular titles for parents and teachers. Waples & Tyler (1931) were concerned with adult interests in various magazine titles. The work of Thorndike & Henry (1940), and Thorndike (1941) used lists of fictitious annotated titles to assess the interests of students from a broad range of topics. Strang (1942) conducted an extensive study of the reading patterns of 112 people, ages 13 - over 50, using a case study approach. A very extensive study was conducted by Norvell (1950), who surveyed 50,000 students reacting to materials used in the classroom. All of these early studies tried to describe reading interests in various categories with an emphasis on enumerating subjects and titles of interest to students.

Strang (1942) found very unique patterns of reading interests among the individuals she studied, and warned that generalizations about interests could be inappropriate when dealing with individuals.

When recommending books for children, she suggested that individual rather than group interests would be more appropriately considered.

Most early studies also examined the developmental aspects of reading interests. The differences among children of differing ages were listed books and topics that children would be interested in. Thorndike (1941) and Norvell (1950) found that although interest change with age, the changes were gradual and often overlapped. Both suggested that only broad generalizations and trends could be described.

The early descriptive studies of reading interests shed light on many aspects of reading interests, but should be examined with care. The very early studies tended to be prescriptive rather than descriptive. Terman & Lima (1925) were concerned with removing the influence of objectionable books from children. They listed only the "suitable" titles and topics worthy of reading. Thorndike & Henry (1940) were alarmed at the use of comics as reading materials for children. Value judgments like these tended to obscure the descriptions of the true reading interests of the children that were studied.

Each of the descriptive studies used different types of measures of reading interests. Reading records were used by Terman & Lima (1925), and Thorndike & Henry (1940). Reactions to stories read to children were used by Huber (1928), and Norvell (1950). Norvell also used reactions to materials studied in school. Topic lists were also used by Terman & Lima (1925). The use of annotated titles was initiated by Waples & Tyler (1931), and was repeated in fictionalized form by Thorndike & Henry (1940), Thorndike (1941), and Strang (1942).

No distinction, however, in any of these studies was made between expressed reading interests and actual reading interests. Also, the relationship between reading interest and comprehension was assumed in each of these descriptive studies. No attempt was made to study the relationship empirically.

Correlational Studies of Reading Interests

Many of the early studies of reading interests were concerned with the factor of intelligence in differentiating reading interests. The Terman & Lima study (1925) grew out of an earlier study of genius and sought to show how average and bright students differ in interests. Huber (1928) added a group of "dull" students to his study of the relationship of intelligence to reading interests. Thorndike & Henry (1940), and Thorndike (1941) used multiple correlations to determine the relationship of intelligence with reading interests. Only Terman & Lima (1925) claimed differences in the reading interests of bright children. The others reported a striking similarity of interests across intelligence levels.

All of the early studies found sex differences in reading interests. These findings have been borne out by subsequent research (Norvell, 1950; Asher, 1980). The strength of sex differences outweighed any other factor in differentiating reading interests (Terman & Lima, 1925; Thorndike & Henry, 1940; Thorndike, 1941; and Norvell, 1950).

Studies conducted over the last thirty years have differed in both perspective and methodology from the early studies of the

correlates of reading interests. Different factors have been examined. The concern about intelligence has given way to a concern about reading ability. Factors of socio-economic status and ethnicity have been studied. In addition, the types of materials presented have been the subjects of research. And, finally, empirical research on the relationship between reading interests and comprehension has been conducted.

The relationship of reading interests and reading achievement levels has replaced the previous study of intelligence differences. Bernstein (1955), and Shnayer (1969) assessed reading interests of students with differing levels of reading ability. Pauk (1973) suggested that creating high interest materials for low reading achievers would be extremely useful. Stevens (1980b) surveyed the interests of higher ability students.

The relationship of socio-economic status and reading interests has been studied. Even though Terman & Lima (1925, p. 48) stated that the effect of socio-economic background on reading interests was too evident to require much elaboration, subsequent studies have shown it plays only a minor role. Barchas (1971) found that children of differing socio-economic background were more similar than different in their expressed reading interests. In a study of reading interests of urban and suburban students, Elliott & Steinkellner (1979) found no significant differences in reading preferences.

In the area of ethnicity, Jung (1967) found a stability of interests among children of white, black, and oriental backgrounds. Barchas (1971), similarly, found few differences among white, black,

Mexican, and Indian children, except when the topics were tied to their ethnic identification.

Elliott & Steinkellner (1979) found that interests were stable over types of materials presented. Students who were interested in sports, enjoyed sports stories and articles in books, magazines, and newspapers. Beyard-Taylor & Sullivan (1980) examined the preferences that junior high school students had for themes of stories and gender of characters.

Factors correlated with reading interests as discussed above will continue to concern educators and researchers. The present study examined the effects of reading ability and gender in relation to reading interest. Of greater concern, however, was the effect that reading interest had on reading comprehension. The study of this relationship has been the subject of many recent studies. The following section will present a review of this research.

Reading Interest and Comprehension

The first empirical study of the relationship of reading interest and comprehension found in the literature of educational research was conducted by Bernstein (1955). She tested comprehension of two passages, one designed to be of high interest and one of low interest to students. The results of her study of 100 ninth grade students showed that the high interest passage yielded higher scores in comprehension. This relationship was not affected by intelligence, reading ability, or gender of the subjects.

Shnayer (1969) found a similar positive correlation between interest and comprehension, but also found slightly lower comprehension scores relative to interest for boys. His study of 578 sixth grade students indicated a significant difference between comprehension levels and reading ability, especially for lower ability groups.

Other research on interest and comprehension has yielded similar results of positive correlation. Estes & Vaughan (1973) tested 46 fourth grade students, and concluded that testing should allow for interest as well as text difficulty. Asher & Markell (1974), using Cloze to test comprehension of 87 fifth grade students, found interest to affect the comprehension of girls less than boys. The effect, regardless of gender, was significant. Asher, Hymel & Wigfield (1978) were concerned that the use of contrasting passages had exaggerated the results of previous studies. Their study, conducted with 70 fifth grade students, used high or low interest passages, but not both, with their subjects. They found a similar relationship between interest and comprehension, but no significant differences between boys and girls in the relationship.

Walker, Noland & Greenshields (1979) found in a study of the effect of interest on fifth and sixth grade students' performance on informal reading inventories that both word recognition and comprehension was significantly better when interest in the reading passages was high. Vaughan & Gaus (1978) suggested that assessment of reading interests should be an integral part of the informal reading inventory, especially for secondary school students.

Belloni & Jongsma (1978) in a study with 50 seventh grade students, using Cloze testing, concluded that interest could overcome text difficulty in the testing situation. Stevens (1980b) found ability to be the overriding factor in comprehending difficult texts read by 93 higher ability fifth and sixth grade students, but also found significant effect for interest as well.

In none of the studies mentioned above was measurement of their prior knowledge of the topics of the passages read conducted. In each case the effect of interest was shown to significantly relate with comprehension. However, without examining the effect of prior knowledge, the effect of interest on comprehension cannot be made unequivocally (Pearson & Johnson, 1978). The following section discusses the issue of prior knowledge effects on comprehension.

Prior Knowledge and Comprehension

It has been stated that ". . . through language, novel concepts can only be communicated in the form of novel combinations of familiar concepts," (Adams & Bruce, 1980; p. 1). This statement characterizes the recent thinking of many reading researchers who believe that prior knowledge is essential to reading comprehension. Their belief is that readers can only comprehend what they read when the information in texts is related to what they already know. The theoretical framework upon which this belief is formed is known as schema theory. Schema theory postulates the underlying mechanisms by which comprehension can occur (Schallert, 1982).

The existence of schema, or organizational frameworks of prior knowledge, has been demonstrated by Anderson, Reynolds, Schallert & Goetz (1977), along with many other researchers (Schallert, 1982). The importance of prior knowledge in the form of schema during reading has been argued by Adams & Collins (1979). Not only has much recent research assumed the effect of prior knowledge on reading comprehension, but also empirical studies of the relationship have been conducted.

Pearson, Hansen & Gordon (1979) in a study of second grade students found that comprehension of explicit and implicit information in texts about spiders was significantly better for subjects having greater prior knowledge of the topic. They argued that the "intuitively sensible contention" that prior knowledge affects the depth of understanding was supported.

A study conducted by Stevens (1980a) using 108 ninth grade students further supported the contention that prior knowledge of a topic aids reading comprehension. This study tested subjects on passages individually selected to be about topics of both high and low prior knowledge for them.

While the relationships between prior knowledge and comprehension, and interest and comprehension have been demonstrated, few studies have been conducted to examine and sort out the effects of both prior knowledge and interest on comprehension. The next section deals with these studies.

Interest, Prior Knowledge, and Comprehension

Do readers better comprehend materials simply because they are interested in the topics or because they know more about the topics in which they are interested? This question has only recently been addressed in the literature on reading interests. Three studies have specifically examined this issue (Asher, 1980, Weber, 1979; and Entin, 1980).

Asher (1980) reported about a study conducted several years earlier in which elementary school children read six passages, three high interest passages and three low interest passages. Selection of the topics was made by having subjects respond to pictures depicting 25 different topics. The passages were written so generally that by inserting a key word about the topics (e.g., "cats") in three places in the text and also in the title, the passages could be about any of the topics.

In Asher's study, control of prior knowledge was maintained by manipulating only the topic of the passages. The amount of prior knowledge needed to comprehend the passage was therefore similar regardless of topic. He found no differences in comprehension as measured by the Cloze procedure between high or low interest passages. However, he concluded that not much confidence could be placed on the findings since the generality of the passages could have suppressed the factor of interest.

Weber (1979) conducted a study using 108 college students reading three passages, two academic (biology and psychology) and one nonacademic (basketball). Twenty structured probe questions were used

to measure prior knowledge in each of the topics. A Likert-type scale was used to measure interest. Her findings indicated that both interest and prior knowledge were separately able to predict comprehension as measured by the Cloze procedure. Together, the variables combined to be a better predictor than either of the two separately.

In the multiple regression analysis of the data, Weber found that the amount of variance contributed by each factor was significantly affected by ordering. When prior knowledge was entered into the regression equation before interest, almost all of the variance was accounted for. However, when prior knowledge was entered after interest, the amount of variance contributed was still greater than that for interest. She concluded that background knowledge was the overriding factor affecting comprehension, but that interest should be considered as contributing to comprehension as well.

Entin (1980) also studied the interrelationship of interest, prior knowledge, and comprehension. She conducted her research with 266 college freshmen, adding the factor of readability of passages into the analysis. The subjects rated their interest in 12 different topics and were assessed in their knowledge of those topics using a matching terms instrument. Two passages were prepared for each topic, one at the 12th grade level and one at the 16th grade level. Comprehension was measured using the Cloze procedure. Subjects read and completed Cloze passages of eight different topics, four rated high interest and four rated low interest. Of each set of four high or low interest passages, two were high readability and two were low read-

ability. Analyses of data were conducted utilizing analysis of variance techniques.

The results of Entin's study indicated that the effects of each factor, interest, prior knowledge, and readability, were significant in relation to comprehension. In addition, the findings indicated that the independent variables had an additive effect on comprehension.

In examining these three studies together, only tentative conclusions can be drawn regarding the comparison of the separate effects of prior knowledge and interest on comprehension. The study conducted by Weber indicated that the prior knowledge effect was substantial for college students above and beyond that of interest, and that the interest effect was diminished when knowledge was considered first. The other two studies did not address this issue specifically. Measurement of the dependent variable of comprehension was the Cloze procedure for all three studies. Measurement of the other variables was different for each of the three studies. In addition, each of the researchers cautioned that the interest effect could be topic specific.

Measurement Issues

Measurement of the variables of interest, prior knowledge, and comprehension has been conducted in numerous ways. This section of the review of literature examines the issues involved in the measurement of each of these three variables.

Measurement of Reading Interest

There have been numerous methods by which reading interests have been measured. As presented earlier in this chapter, these methods have included: examining reading records or journals, assessing reactions to materials being read, and selecting either topics or annotated titles from lists.

Joels (1978) examined four different formats of measuring reading interests of 5th graders. She studied formats using paired comparisons, single rank orderings, multiple rank orderings, and scalings. She found that while each format yielded reliable interest data, no statistical comparison of the formats was possible since each format measured different aspects of reading interest. She concluded that each format yielded different types of information, and that, depending on the purpose for measuring interests, any one of the formats could be selected. Paired comparisons and multiple rank orderings yield only information on preferences rather than interest. Single rank orderings and scalings yield high and low interest ratings for titles or topics.

Joels (1978) also discussed the issues involved in measuring interests. First, data from interest measures are ipsative, rather than normative, i.e., a high rating by one person does not necessarily equate with any other person's high rating. Second, interests and preferences must be examined separately. And third, intraindividual interests and interindividual interests should not be interpreted in the same way.

Measurement of Prior Knowledge

The measurement of knowledge is one of the major problems in education and educational research. In recent years, procedures for measuring knowledge prior to reading, rather than only after reading, have been developed and tested (Langer & Nicolich, 1981; Hare, 1982). Schema theory has had an impelling influence in the design of these measures (Adams & Collins, 1979).

A comparison of five types of prior knowledge assessment techniques was conducted by Holmes & Roser (1980). The five techniques were: 1) free recall; 2) structured probe questions; 3) word associations; 4) multiple-choice questions; and 5) unstructured interview. Of the five techniques, structured probe questions elicited the greatest amount of information, followed by multiple-choice questions. Effectiveness, i.e., the amount of information elicited compared with the amount of questions, was greatest for free recall, followed by multiple-choice questions. Efficiency, i.e., the amount of information elicited compared with the amount of time for administration, was greatest for both structured probe and multiple-choice questions. The researchers concluded that selection of assessment techniques should be dependent upon the type of information desired and the time and effort to construct, administer, and score the instrument.

In Entin's study (1980), reviewed above, several measures of prior knowledge were used. Only one was an objective measure of matching terms. The others were subjective measures in which the subjects were asked to rate how much they knew about the topics studied. She found that the subjective measure correlated with interest more than

with the objective measure. She concluded that the intercorrelation of interest and prior knowledge was possibly confounding the results of her study.

Measurement of Reading Comprehension

One of the most controversial issues in reading research is the measurement of reading comprehension. Johnston (1983) has recently examined the issues involved in this controversy. One of the issues involves whether comprehension should be viewed as a product or as a process. He argues that while the two perspectives cannot be reconciled with each other, neither one should be excluded in extending our understanding of comprehension.

Much of the recent research involving the interest-comprehension relationship has assessed comprehension as process, utilizing the Cloze procedure (Belloni & Jongsma, 1978; Weber, 1979; Asher, 1980; and Entin, 1980). Earlier research (Bernstein, 1955; Shnayer, 1969; and Estes & Vaughan, 1973), used product measures such as multiple-choice questions.

Recent criticism of the Cloze procedure for measuring comprehension (Alderson, 1978; and Shanahan, et al., 1982), has focused on the inadequate assessment of comprehension above the sentential level. Cloze is unable to measure whether understanding of main ideas, author's purpose, or other discourse level concepts has been achieved. In order to measure these concepts, product measures are necessitated.

Summary

Investigation of reading interest has been undertaken for many years. The first studies were chiefly concerned with descriptions of reading interests of differing groups and ages. Correlational studies of factors influencing reading interests were also frequently conducted.

The investigation of the effect of reading interest on comprehension was begun about thirty years ago. Since then, several studies have confirmed a positive relationship between interest and comprehension.

The advent of schema theory and the concern about the influence of background knowledge on comprehension has focused much research in this area. This focus brought into question the research conducted on reading interest. Studies have since been conducted examining both variables of interest and prior knowledge in relationship to comprehension.

Measurement of the variables of interest, prior knowledge, and comprehension has been quite varied. The issues involved in measurement are yet to be resolved.

CHAPTER 3

DESIGN OF THE STUDY

The purpose of this study was to examine the effect of reading interest on comprehension of expository materials when prior knowledge of the topics of the reading passages was controlled. In order to accomplish this purpose, a multiple correlation study was carried out. The independent variables investigated in the study were reading ability, gender, prior knowledge, and topic interest, with reading comprehension as the dependent variable. The variables were examined over a range of four expository text topics. An attempt was made to select topics that would fit an orthogonal pattern for the majority of the subjects in the study: one topic would be high interest and high knowledge; one topic, low interest and low knowledge; one topic, low interest and high knowledge; and one topic, high interest and low knowledge.

This chapter describes the design of the study. First, a description of the sample of subjects and the population from which it was drawn will be given. Then, the materials used in the study will be described. The data collection procedures will be explained. And finally, the method of data analysis will be described.

Sample

Subjects were 184 ninth-grade students from Amphitheater High School in the Amphitheater Unified School District No. 10 in Tucson,

Arizona. Ninth-grade students were selected from Amphitheater High School for the following reasons:

1. Previous research by Weber (1979) and Entin (1960) to study interest and prior knowledge effects on comprehension used undergraduate college student volunteers. Most earlier studies of just the interest effect on comprehension (Shnayer, 1969; Estes & Vaughan, 1973; Asher & Markell, 1974; and Asher, et al., 1978), had been conducted with elementary school age children. Subjects selected from secondary classrooms in intact classes were desired.

2. The student population at Amphitheater High School appeared to be representative of suburban high schools around the country. Amphitheater High School is a comprehensive high school serving approximately 2,000 students from a largely suburban area. The students represent a wide range of social and economic backgrounds. Approximately 11% of the students are minority students, including approximately 2% whose native language is other than English.

3. The district's superintendent agreed to allow the study to be conducted in one of the district's schools provided the school's principal and affected teachers consented to participate. A meeting with the principal and members of the English department was held in which it was decided that, due to the nature of the study, students in average and above average ninth-grade classrooms would be selected to participate. The selection of students for these classes had been made on the basis

of standardized reading achievement test scores as measured by the California Achievement Tests (California Test Bureau, 1977). Two English teachers were contacted to participate in the study. Both teachers consented to participate.

4. The investigator had ready access to students' reading achievement data, which was used as an independent variable in the study.

Materials

In order to study the effects of interest and prior knowledge on comprehension of expository materials, the investigator developed a number of assessment instruments and texts. A preliminary reading interest inventory was developed for the purpose of determining topics for which the subjects had high and low interests. Administered three weeks prior to the actual study, this inventory yielded data which were used to select the four topics of expository materials to be investigated. For the actual study itself, an interest survey was prepared specifically to measure interest for the four selected topics. A multiple-choice prior knowledge survey covering the topics was designed. And four expository texts were prepared, together with four multiple-choice instruments designed to assess the subjects' reading comprehension of the expository texts.

Preliminary Reading Interest Inventory

The preliminary reading interest inventory was designed to provide information on the reading interests of the subjects. The inventory consisted of a list of forty expository text topics. The

list covered a broad range of topics including informational, recreational, vocational, and academic subjects. The purpose of the inventory was to provide data not only for use in the present study but also for use by the participating teachers. The preliminary reading interest inventory appears in Appendix A.

Two types of responses were required of the subjects. First, the subjects were asked to mark the topics that they would like to read about and the topics that they would not like to read about. Second, the subjects were asked to rank the five topics which they would most like to read about and the five topics which they would least like to read about.

Selection of the Four Expository Text Topics

Four expository text topics were selected for use in the main study. An attempt was made to fit the topics into an orthogonal pattern for the majority of the students. The pattern desired would contrast the effects of interest and prior knowledge and control for intercorrelations of these variables. The topics selected were as follows:

- Topic #1 - High interest, high prior knowledge
- Topic #2 - Low interest, low prior knowledge
- Topic #3 - Low interest, high prior knowledge
- Topic #4 - High interest, low prior knowledge

Several criteria were used in the selection process. First, the interest ratings were considered. Second, the possibility of bias based on the gender of the subjects was examined. Third, judgments about the relative amount of prior knowledge that subjects had about the topics were considered.

Data from the preliminary reading interest inventory were analyzed to develop a list of topics that subjects chose as high and low interest. Table 1 displays the percentages of students that selected each of the forty topics as one of five high or low interest. The ten topics receiving the highest percentages for each of the categories of high and low interest were considered for further analysis.

Since gender of the subjects was selected as one of the independent variables in the present study, the selection of topics for investigation took into account the possible biasing effects that certain topics could have on interest and gender. Of the total sample of 264 students that took the preliminary reading interest inventory, 124 were identified by gender. Table 2 displays the percentages of boys and girls selecting the ten high and ten low interest topics as either high or low.

An analysis of these topics revealed that some of these topics showed biasing effects by interest and gender. For example, the topic "Fashions and Hairstyles" was rated high by 37.9% of the girls but rated high by only 3.4% of the boys, while 32.8% of the boys and no girls rated it low. Likewise, but in the opposite direction, gender bias was detected for the topic "Cars or Motorcycles." When a difference of 15 or more percentage points was detected between the ratings for boys and girls, possible gender bias was indicated.

The final selection process for topics considered the amount of prior knowledge that was judged to be possessed by the subjects in the study. Since no data existed to make this judgment, a panel of classroom teachers were asked to rate the amount of prior knowledge

Table 1. Percentages of students selecting topics as one of five high reading interests and one of five low reading interests. *

TOPIC	HIGH	LOW
Rock and Roll Music	36.0	9.1
Sports	35.2	7.2
Supernatural Events	31.1	3.0
Physical Fitness	23.5	1.9
Fashion and Hairstyles	22.3	17.4
Animals	21.2	4.2
Problems of Teenagers	22.3	4.2
Advice on Dating	18.2	8.3
Adventure	23.5	1.5
Cars or Motorcycles	20.1	15.2
Wildlife	16.7	4.9
Choosing a Career	24.2	2.7
Cooking	12.5	14.0
Aircraft and Flying	16.3	11.7
Human Behavior	16.3	3.0
Sexual Behavior	5.7	9.8
Art and Painting	7.2	7.6
Famous Men and Women	7.2	3.4
Drug Use and Abuse	14.8	11.0
Games	9.5	7.6
Current Events	6.8	5.7
Protecting the Environment	6.1	3.8
Space Exploration	14.8	11.4
People in Other Countries	5.7	4.9
Consumer Information	3.4	12.1
Saving Energy	3.4	8.7
Television Stars	13.3	8.7
Crafts	4.5	5.3
Ancient History	7.2	11.4
American History	7.2	16.3
Education	3.8	16.3
Languages	5.3	11.7
Child Care	6.1	18.2
Scientific Experiments	7.6	17.8
Geography	0.8	21.2
Government	1.9	26.5
Religion	4.2	29.5
Classical Music	1.9	40.9
Country and Western Music	2.3	34.1
Politics	3.0	48.9

*n = 264

Table 2. Percentages of boys and girls selecting topics as one of five high reading interests and one of five low reading interests.

HIGH INTEREST TOPICS	BOYS n=58		GIRLS n=66	
	HI	LO	HI	LO
Rock and Roll Music	39.7	12.1	31.8	3.0
Sports	43.1	5.2	24.2	12.1
Supernatural Events	27.6	0.0	31.8	3.0
Choosing a Career	27.6	1.7	37.9	1.5
Physical Fitness	17.2	3.4	30.3	3.0
Adventure	36.2	0.0	10.6	1.5
Fashion and Hairstyles	3.4	32.8	37.9	0.0
Problems of Teenagers	13.8	8.6	28.8	1.5
Animals	17.2	3.4	19.7	6.1
Cars or Motorcycles	32.8	5.2	4.5	28.8

LOW INTEREST TOPICS	HI	LO	HI	LO
Politics	5.2	39.7	3.0	53.0
Classical Music	1.7	44.8	1.5	36.4
Country and Western Music	0.0	36.2	4.5	28.8
Religion	6.9	19.0	3.0	31.8
Government	1.7	13.8	1.5	30.3
Geography	1.7	17.2	0.0	25.8
Child Care	0.0	27.6	9.1	4.5
Scientific Experiments	8.6	8.6	6.1	19.7
Education	3.4	25.9	4.5	10.6
American History	10.3	6.9	4.5	21.2

that ninth grade students would have in the remaining topics. The difficulty was to find topics to fit the last two categories in the orthogonal pattern, the low-high topic and the high-low topic.

Following much deliberation, the panel chose the following topics:

Topic #1. Rock and Roll Music - high interest, high prior knowledge.

Topic #2. Classical Music - low interest, low prior knowledge.

Topic #3. Politics - low interest, high prior knowledge.

Topic #4. Supernatural Events - high interest, low prior knowledge.

Interest Survey

Following selection of the four topics, an interest survey was prepared to specifically measure the interest of the subjects in those topics. Subjects were instructed to rate their interest in reading a magazine article about each of the four topics on a Likert-type scale. The scale ranged from 1 (not at all interest) to 7 (very interested). The number 4 on the scale was labelled "moderately interested." The interest survey appears in Appendix B.

Background Knowledge Survey

For each of the four topics, a set of ten multiple-choice questions was prepared to measure the prior knowledge of the subjects.

- Five choices were given for each question. The questions sampled

general and specific knowledge of concepts and details related to the topics. The background knowledge survey appears in Appendix C.

A panel of six classroom teachers were asked to rate the sets of questions for content validity. The teachers were asked to determine whether the questions measured a representative range of knowledge for each of the topics. Questions that were judged too broad, too trivial, or irrelevant were eliminated and new questions were prepared.

When the panel agreed on the set of questions for each topic, an informal pilot study was conducted to test the validity of the questions. Students were selected from the classrooms of the panel of teachers for the pilot study. Students who reported that they were knowledgeable in each topic were given the appropriate set of questions. The questions were also given to students who reported that they had very little knowledge in each topic. The results of the pilot study indicated that the background knowledge survey for each of the topics was able to discriminate between those students who reported great and little prior knowledge in the topics.

Expository Text Passages

A search for expository text passages for each of the topics was conducted in popular news magazines. The readability of these magazines was usually predicted to be at or above the ninth grade level. The search for passages yielded texts for three of the subjects. When the search was unable to uncover a passage for the topic of Supernatural Events, a current book on the subject was located to provide a text for the study.

Passages used in the study appear in Appendix D. The passages for the Rock and Roll Music, Classical Music, and Politics topics were adapted from articles appearing in Time magazine ("Rock Hits the Hard Place," 1982; "Are Hayden's Operas Coming Back," 1982; "'Dollar Bill's' Friends Are Rich, 1982). The passage for the Supernatural Events topic was adapted from an article in the book, Arthur C. Clarke's Mysterious World (Welfare & Fairley, 1980).

A length of 400 words for the passages was chosen for use in the present study. Articles found for three of the topics greatly exceeded this length and so passages were adapted from those articles. Care was taken to present complete ideas and preserve the basic integrity of the texts.

Estimates of the readability of the passages yielded predicted reading levels ranging from 10th grade to 14th grade (Fry, 1977). Since the subjects of the study were considered average and above readers, it was decided that difficult texts relative to the abilities of the students should be used to prevent a ceiling effect for the comprehension instruments. The median reading level of the texts was 12th grade. This difficulty level was selected for the study. The passages were further adapted to conform to this level.

In Entin's study of prior knowledge, interest, and readability effects on comprehension (1980), the problem of text selection is discussed in detail. Two methods were described. In the first, passages of similar readability are located initially, then interest in the topics of the passages are measured. In the second method, interest is measured first, then passages are located to match those interests.

Both methods are fraught with problems. In the first method, which has been utilized in most of the previous research, interest is heavily constrained by the topics selected. Very high or very low interest topics can be overlooked or neglected. Both Weber (1979) and Entin (1980) used the first method. Their subjects were limited to the available topics for which passages had been found.

The present study was designed to use the second method in selecting texts to compare the results with these earlier studies. A limitation of this second method is that passages are manipulated to conform to readability estimates. The panel of teachers used earlier in the study was asked the following questions: "Do the adapted texts convey the same main idea and author's point of view as the originals?" "Do the adapted texts convey a complete thought?" "Are the style and language of the adapted texts smooth and clear?" "Were significant details of the original texts included in the adapted texts?" The panel's recommendations were used in the final editing of the passages.

The passages were presented to subjects without titles. Titles were considered a possible threat to the inference of the main idea or gist of the passage, one of the comprehension skills that was to be measured.

Comprehension Instruments

The comprehension instruments for each of the topics consisted of ten multiple-choice items. The items included one question that elicited the main idea or gist of the corresponding passage. One question asked what was the author's point of view. The other items measured comprehension of concepts and details in the passages and

text-based inferences from the passages. Five choices were given for each item. The comprehension instruments appear along with corresponding reading passages in Appendix D.

Care was taken to insure that the instruments measured comprehension of the passages and not the prior knowledge of the subjects. Validation of the comprehension questions was conducted in the researcher's own classroom of high school students. Informal item analyses were performed on the instruments with and without reading the passages. Items were found to be passage dependent and reliable.

Procedures

Data collection for the main study took place on two different occasions. The two dates for collection were separated by a three week interval. Data were collected in intact classrooms by the regular English teachers of the subjects.

Subjects were informed that they were participating in a research study for the University and that the results of individual student's performance would not be available after the study. The subjects were told that even though their names appeared on the top sheet of the instruments, they would be removed prior to data analysis. The names were used only to aid in the handling of materials.

The instructions were read aloud to the subjects by the teachers while the subjects followed along on their own copies of the instruments. The teachers clarified any instructions that the subjects did not understand.

To control for order effects, the background knowledge survey was separated by topic and the order of administration was randomly

assigned to subjects. The expository text passages with their corresponding comprehension instruments were similarly treated. To control for the possible confounding of the prior knowledge survey and the reading comprehension instruments, background knowledge was surveyed for two topics prior to reading and two topics after reading.

During the first data collection session, the interest survey of the four topics was administered. Also, the background knowledge survey of two of the topics was given.

The second session consisted of the reading of the passages, along with the administration of the comprehension instruments. The background knowledge survey of the remaining topics followed the comprehension instruments.

Data on the reading abilities of the subjects was obtained from the school's counselling department. The reading comprehension subtest raw scores from the California Achievement Test (California Test Bureau, 1977), a standardized achievement test, were used as the measure of reading ability.

Data Analysis

To provide an indication of the extent and nature of the relationship between interest and reading comprehension when reading ability, gender of the subject, and prior knowledge of the topic were controlled, multiple regression analyses were performed on the data. These analysis procedures also indicated whether any interactions occurred among or between the independent variables as they relate to the dependent variable of reading comprehension.

The order of entry of the variables into the regression equation was reading ability, first; gender, second; prior knowledge, third; and reading interest, last. While the ordering of the variables does not effect the F ratio of statistical significance between and among the relationships, the amount of variance accounted for by each of the variables does change (Pedhazur, 1982). This particular order was chosen as the controlling measure for the variables entered prior to reading interest. The amounts of variance for the variables of reading ability, gender, and prior knowledge was accounted for first, then the amount of variance accounted for by reading interest was computed. Thus the amount of variance accounted for by interest was sorted out and minimized.

The data were analyzed by computer using the Statistical Package for the Social Sciences (SPSS, 1982).

The results of this analysis of the data are discussed in the following chapter.

CHAPTER 4

RESULTS

The commonly held assumption that interest in a topic aids reading comprehension has come under close scrutiny with the advent of theory and research of prior knowledge effects on reading comprehension. The present study was designed to investigate the extent to which either interest or prior knowledge effect comprehension.

Two research questions were formulated for investigation. The first question involved the effect of topic interest on the comprehension of four different expository text passages. Controls were implemented for reading ability and gender of the subjects, as well as, prior knowledge of the topics. The second question was concerned with whether the independent variables of reading ability, gender, prior knowledge, and interest interacted in their relationship with the dependent variable of reading comprehension.

In this chapter, the results of the initial data analysis procedures are presented and discussed. Then, presentation and discussion of the findings of the study in relation to the research questions are given. Subsidiary findings relevant to the research questions are then examined. And, finally, a short summary of the findings is presented.

Initial Data Analysis

Data were initially analyzed using descriptive statistical methods. Each of the measured variables of reading ability, prior knowledge, topic interest, and reading comprehension were examined. The means, standard deviations, and ranges of the measured variables are displayed in Table 3.

Reading Ability

For reading ability, the subjects' raw scores of the Reading Comprehension Subtest of the California Achievement Test (California Test Bureau, 1977) were analyzed for use in the study. For comparison purposes only, the national percentile rankings were analyzed. This analysis validates the contention that the students used as subjects in the study were average and above in reading ability.

Prior Knowledge

The results of the prior knowledge survey did not validate the selection of Supernatural Events as a low knowledge topic in relation to the high knowledge topics of Rock and Roll Music and Politics. The mean scores for the three topics had relatively close values. The orthogonal pattern desired was not obtained.

Topic Interest

The results of the interest survey validated the results of the preliminary reading interest inventory. The topics expected to be low in interest were, in fact, low in relation to the high interest topics. Rock and Roll Music and Supernatural Events were rated higher in subjects' interests than Classical Music and Politics.

Table 3. Summary of Means, Standard Deviations, and Ranges for Reading Ability, Prior Knowledge, Topic Interest, and Reading Comprehension.

Variable	Mean	Standard Deviation	Range
Reading Ability*			
Raw Score	29.99	5.38	13 - 40
Natl. %ile	72.23	20.57	13 - 99
Prior Knowledge (scores on 10-item survey)			
Rock and Roll Music	3.99	1.82	0 - 9
Classical Music	2.22	1.34	0 - 7
Politics	3.46	1.54	0 - 7
Supernatural Events	3.67	1.49	0 - 8
Topic Interest (ratings on 7-point Likert scale)			
Rock and Roll Music	5.01	1.79	1 - 7
Classical Music	2.13	1.62	1 - 7
Politics	2.69	1.63	1 - 7
Supernatural Events	4.95	1.78	1 - 7
Reading Comprehension (scores on 10-item instrument)			
Rock and Roll Music	3.59	2.02	0 - 9
Classical Music	3.67	2.15	0 - 9
Politics	4.69	2.20	0 - 10
Supernatural Events	5.28	2.19	0 - 10

*Reading Comprehension Subtest Scores, California Achievement Test, Form C, Level 18 (California Test Bureau, 1977).

Reading Comprehension

The reading comprehension mean scores for the expository text passages indicated that comprehension of the Supernatural Events passage was greatest (5.28/10) and comprehension of the Rock and Roll Music passage was least (3.59/10). The Classical Music Passage had a mean score of (3.67/10), and the Politics passage had a mean score of (4.69/10). These preliminary findings indicated that interest was not the main factor affecting comprehension. Further analyses was indicated.

Findings Related to Question 1

Data were analyzed using the statistical methods of multiple regression to investigate the first research question for each of the four topics. The research question addressed was:

Is there a statistically significant relationship between reading interest and comprehension of expository materials read by ninth grade students when reading ability, gender of the students, and prior knowledge of the topics of the materials have been controlled?

The results of the multiple regression analyses are presented on Tables 4 - 15. Tables 4 - 6 display the results for the Rock and Roll Music passage. Tables 7 - 9 display the results for the Classical Music passage. Tables 10 - 12 display the results for the Politics passage. Tables 13 - 15 display the results for the Supernatural Events passage.

The set of tables for each passage includes: first, a correlation matrix for all of the variables entered into the regression equation (Tables 4, 7, 10, and 13); second, a multiple regression summary table with the variables ordered by entry into the regression equation

Table 4. Correlation Matrix for Rock and Roll Music Passage.

VARIABLE	RdgAbl	Gender	Knwldg	Intrst	Cmphsn
RdgAbl	1.00	-0.04	0.29	0.09	0.45
Gender		1.00	-0.10	-0.01	0.01
Knwldg			1.00	0.24	0.18
Intrst				1.00	-0.01
Cmphsn					1.00

Table 5. Multiple Regression Summary Table: Main Effects for Rock and Roll Music Passage.

Dependent variable: Reading Comprehension Score			
Independent Variable	F (4,179)	Multiple R ²	R ² Change
RdgAbl	38.82*	.1999	.1999
Gender	.27	.2008	.0009
Knwldg	1.12	.2040	.0032
Intrst	1.04	.2087	.0046

Table 6. Multiple Regression Analysis of Variance Summary Table for Rock and Roll Music Passage.

	DF	SS	MS	F
Regression	4	155.78	38.94	11.79*
Residual	179	590.83	3.30	

* $p < .05$ significance level

Table 7. Correlation Matrix for Classical Music Passage.

VARIABLE	RdgAbl	Gender	Knwldg	Intrst	Cmphsn
RdgAbl	1.00	-0.04	0.30	0.24	0.51
Gender		1.00	0.05	-0.12	-0.00
Knwldg			1.00	0.27	0.20
Intrst				1.00	0.27
Cmphsn					1.00

Table 8. Multiple Regression Summary Table: Main Effects for Classical Music Passage.

Dependent variable: Reading Comprehension Score			
Independent Variable	F (4,179)	Multiple R ²	R ² Change
RdgAbl	49.34*	.2622	.2622
Gender	.31	.2625	.0003
Knwldg	.01	.2642	.0017
Intrst	5.71*	.2869	.0227

Table 9. Multiple Regression Analysis of Variance Summary Table for Classical Music Passage.

	DF	SS	MS	F
Regression	4	243.41	60.85	18.00*
Residual	179	605.03	3.38	

* $p < .05$ significance level

Table 10. Correlation Matrix for Politics Passage.

VARIABLE	RdgAbl	Gender	Knwldg	Intrst	Cmphsn
RdgAbl	1.00	-0.04	0.45	0.28	0.57
Gender		1.00	-0.01	0.07	0.06
Knwldg			1.00	0.20	0.31
Intrst				1.00	0.35
Cmphsn					1.00

Table 11. Multiple Regression Summary Table: Main Effects for Politics Passage.

Dependent variable: Reading Comprehension Score			
Independent Variable	F (4,179)	Multiple R ²	R ² Change
RdgAbl	53.30*	.3264	.3264
Gender	1.24	.3332	.0068
Knwldg	.61	.3371	.0039
Intrst	9.56*	.3707	.0336

Table 12. Multiple Regression Analysis of Variance Summary Table for Politics Passage.

	DF	SS	MS	F
Regression	4	329.51	82.38	26.37*
Residual	179	559.27	3.12	

* $p < .05$ significance level

Table 13. Correlation Matrix for Supernatural Events Passage.

VARIABLE	RdgAbl	Gender	Knwldg	Intrst	Cmphsn
RdgAbl	1.00	-0.04	0.39	0.21	0.57
Gender		1.00	-0.03	0.12	0.10
Knwldg			1.00	0.06	0.34
Intrst				1.00	0.16
Cmphsn					1.00

Table 14. Multiple Regression Summary Table: Main Effects for Supernatural Events Passage.

Dependent variable: Reading Comprehension Score			
Independent Variable	F (4,179)	Multiple R ²	R ² Change
RdgAbl	61.14*	.3292	.3292
Gender	4.29*	.3451	.0159
Knwldg	4.99*	.3628	.0177
Intrst	.25	.3637	.0009

Table 15. Multiple Regression Analysis of Variance Summary Table for Supernatural Events Passage.

	DF	SS	MS	F
Regression	4	319.21	79.80	25.57*
Residual	179	558.52	3.12	

* $p < .05$ significance level

(Tables 5, 8, 11, and 14); and third, a multiple regression analysis of variance summary table (Tables 6, 9, 12, and 15).

For each topic the independent variables were loaded into the regression equation in the following order: reading ability, gender, prior knowledge, and interest. The dependent variable was reading comprehension.

Rock and Roll Music Passage

Interest did not correlate with comprehension for the Rock and Roll Music passage. Table 4 displays a correlation coefficient of -0.01. The effect of interest on comprehension as shown in Table 5 by the F ratio value (1.04), and the amount of variance accounted for, R^2 change value (.0046), was not statistically significant at the .05 confidence level. The multiple correlation coefficient (.2087) of all the main effects was significant as indicated by the F ratio value (11.79) displayed in Table 6.

Classical Music Passage

Interest correlated moderately with comprehension for the Classical Music passage. Table 7 displays a correlation coefficient of 0.27. The effect of interest on comprehension as shown in Table 8 by the F ratio value (5.71), and the amount of variance accounted for, R^2 change value (.0227), was statistically significant at the .05 confidence level. However, this amount of variance is very small (less than 3%). The multiple correlation coefficient of all the main effects (.2869) was significant as indicated by the F ratio value (18.00) displayed in Table 9.

Politics Passage

Interest correlated moderately with comprehension for the Politics passage. Table 10 displays a correlation coefficient of 0.35. The effect of interest on comprehension as shown in Table 11 by the F ratio value (9.56), and the amount of variance accounted for, R^2 change value (.0336), was statistically significant at the .05 confidence level. Again, this amount of variance is very small (less than 4%). The multiple correlation coefficient of all the main effects (.3707) was significant as indicated by the F ratio value (26.37) displayed in Table 12.

Supernatural Events Passage

Interest did not correlate well with comprehension for the Supernatural Events passage. Table 13 displays a correlation coefficient of 0.16. The effect of interest on comprehension as shown in Table 14 by the F ratio value (.25), and the amount of variance accounted for, R^2 change value (.0009), was not statistically significant at the .05 confidence level. The multiple correlation coefficient of all the main effects (.3637) was significant as indicated by the F ratio value (25.57) displayed in Table 15.

Findings Related to Question 2

Further multiple regression analyses were required to address the second research question. The research question was:

Are there statistically significant interactions among or between the independent variables of reading interest, reading ability, gender of the students, and prior knowledge of the topics as they relate to the dependent variable of comprehension of expository materials read by ninth grade students?

The method of analysis chosen to address this research question was the forward selection procedure in which the main effects are loaded into the regression equation in a random order, followed by the two-way interactions in a random order, then the three-way interactions are loaded randomly, and finally, the four-way interaction is loaded. This process was followed for each of the four topics. The results of the data analyses are presented in Tables 16 - 19.

As can be seen from the F ratio values, no significant interactions were found for any of the passages. The .05 confidence level was used.

Subsidiary Findings

Some findings relevant to the research questions but not specifically addressed by either question are presented here. These findings, while not specifically investigated by the present study, involve the independent variables that were controlled for the purposes of the study. The main effects of reading ability, gender, and prior knowledge were examined as subsidiary results of the study.

Effects of Reading Ability

The single most significant factor ($p < .05$) in all of the passages was reading ability. In each of the passages the amount of variance accounted for by reading ability in relation to the other factors studied was relatively very great. The amount ranged from .1999 for Rock and Roll Music (Table 5) to .3292 for Supernatural Events (Table 14).

Table 16. Multiple Regression Summary Table: Main Effects and Interactions for Rock and Roll Music Passage.

Dependent variable: Reading Comprehension Score				
Independent Variable	F (4,179)	Multiple R ²	R ² Change	Simple r
Gender (A)	.27	.0001	.0001	.01
Intrst (B)	1.04	.0003	.0002	-.01
RdgAbl (C)	38.82*	.2037	.2034	.45
Knwldg (D)	1.12	.2087	.0050	.18
(10,173)				
A x D	.68	.2093	.0006	.08
A x B	.45	.2110	.0017	.01
B x D	.73	.2134	.0024	.13
A x C	.92	.2170	.0036	.10
B x C	.18	.2172	.0002	.18
C x D	1.01	.2218	.0046	.30
(14,169)				
A x B x D	.65	.2293	.0075	.09
A x C x D	2.07	.2358	.0065	.15
A x B x C	1.25	.2411	.0053	.10
B x C x D	.14	.2418	.0007	.23
(15,168)				
A x B x C x D	1.87	.2501	.0083	.15

* $p < .05$ significance level

Table 17. Multiple Regression Summary Table: Main Effects and Interactions for Classical Music Passage.

Dependent variable: Reading Comprehension Score				
Independent Variable	F (4,179)	Multiple R ²	R ² Change	Simple r
Gender (A)	.31	.0000	.0000	-.00
RdgAbl (B)	49.34*	.2625	.2625	.51
Intrst (C)	5.71*	.2869	.0244	.27
Knwldg (D)	.01	.2869	.0000	.20
(10,173)				
A x C	.22	.2881	.0012	.13
A x D	.01	.2881	.0000	.08
C x D	.01	.2883	.0002	.29
A x B	.15	.2890	.0007	.09
B x D	.54	.2912	.0022	.31
B x C	.00	.2912	.0000	.35
(14,169)				
A x C x D	.16	.2933	.0021	.15
A x B x C	.85	.2954	.0021	.17
A x B x D	1.09	.3007	.0053	.15
B x C x D	.27	.3018	.0011	.33
(15,168)				
A x B x C x D	.90	.3056	.0038	.17

* $p < .05$ significance level

Table 18. Multiple Regression Summary Table: Main Effects and Interactions for Politics Passage.

Dependent variable: Reading Comprehension Score				
Independent Variable	F (4,179)	Multiple R ²	R ² Change	Simple r
Gender (A)	1.24	.0034	.0034	.06
Knwldg (B)	.61	.1009	.0975	.31
Intrst (C)	9.56*	.1834	.0025	.35
RdgAb1 (D)	53.30*	.3707	.1873	.57
(10,173)				
A x C	.05	.3710	.0003	.19
A x B	.23	.3737	.0027	.18
B x C	.63	.3738	.0001	.41
A x D	.42	.3746	.0000	.15
B x D	2.29	.3825	.0079	.45
C x D	1.21	.3868	.0043	.46
(14,169)				
A x B x C	.19	.4011	.0143	.23
A x C x D	2.56	.4077	.0066	.25
A x B x D	2.79	.4173	.0096	.23
B x C x D	.01	.4173	.0000	.46
(15,168)				
A x B x C x D	.32	.4184	.0011	.27

* $p < .05$ significance level

Table 19. Multiple Regression Summary Table: Main Effects and Interactions for Supernatural Events Passage.

Dependent variable: Reading Comprehension Score				
Independent Variable	F (4,179)	Multiple R ²	R ² Change	Simple r
Gender (A)	4.29*	.0105	.0105	.10
Knwldg (B)	4.99*	.1299	.1094	.34
Intrst (C)	.25	.1463	.0164	.16
RdgAbl (D)	61.14*	.3637	.2174	.57
(10,173)				
A x B	.08	.3667	.0030	.23
A x C	.05	.3668	.0001	.12
B x C	1.76	.3691	.0023	.33
A x D	.54	.3715	.0024	.22
C x D	2.16	.3788	.0073	.37
B x D	.28	.3798	.0010	.46
(14,169)				
A x B x C	.05	.3798	.0000	.22
A x B x D	.01	.3798	.0000	.30
A x C x D	.26	.3808	.0010	.22
B x C x D	.00	.3808	.0000	.43
(15,168)				
A x B x C x D	.21	.3816	.0008	.29

* $p < .05$ significance level

Effects of Gender of the Subjects

Gender was a significant factor ($p < .05$) in only one passage, Supernatural Events (Table 14). However, the amount of variance accounted for by this factor was very small (.0159 or less than 2%).

Effects of Prior Knowledge

Prior knowledge was a significant factor ($p < .05$) in only one passage, Supernatural Events (Table 14). The amount of variance accounted for by the prior knowledge factor was also very small (.0177 or less than 2%).

Summary

Preliminary data analysis indicated that the desired orthogonal pattern of topics was not achieved. The targeted high-interest/low-knowledge topic, Supernatural Events, was in fact similar to the high-interest/high-knowledge topic, Rock and Roll Music.

The contention that the subjects were average and above was validated. The preliminary selection of topics as high and low interest was validated.

The effect of interest on comprehension when reading ability, gender, and prior knowledge were controlled was significant for only two of the passages, Classical Music and Politics. The amount of variance accounted for by interest in those passages was very small, however.

The effect of reading ability was significant for all passages. The effects of prior knowledge and gender were significant only for the Supernatural Events passage.

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter contains a summary of the study including a statement of the problem investigated and the procedures employed in the study. Following this summary, findings of the study are given. Conclusions and discussion are then presented, followed by the implications for research and classroom instruction. Finally, suggestions for further research are outlined.

Summary

The purpose of this study was to investigate the extent to which interest in a topic affects comprehension of expository text passages when prior knowledge of the topic was controlled. A subsidiary investigation into the possible interactions of reading ability and gender of the subjects was also conducted. The following research questions were formulated in order to address these purposes:

1. Is there a statistically significant relationship between reading interest and comprehension of expository materials read by ninth grade students when reading ability, gender of the students, and prior knowledge of the topics of the materials have been controlled?

2. Are there statistically significant interactions among or between the independent variables of reading interest, reading ability, gender of the students, and prior knowledge of the topics as they relate to the dependent variable of comprehension of expository materials read by ninth grade students?

Subjects

Subjects for this study were 184 ninth grade students from a large, southwestern, suburban high school. The students had average and above average reading abilities as measured by the California Achievement Test (California Test Bureau, 1977).

Procedures

A preliminary study was conducted to select four topics from a sample of forty expository text topics for use in the main study. Four topics were necessary to fit an orthogonal pattern: the first topic was rated as high interest and high prior knowledge; the second, high interest and low knowledge; the third, low interest and high knowledge; and the last, low interest and low knowledge. The orthogonal pattern of topics was needed to control for the intercorrelation of interest and prior knowledge. From the preliminary study, the topics of rock and roll music, supernatural events, politics, and classical music were chosen.

In the main study, data were collected on two separate occasions in intact English classrooms. The two data gathering dates were separated by a three-week interval. The regular classroom teachers collected all data.

On the first occasion, subjects were asked to rate on a 7-point Likert scale their interest in reading a magazine article about each of the four topics. A prior knowledge survey was administered to each subject. In order to counteract the possible interference of the prior knowledge survey on the later comprehension measure, the survey covered

only two of the four topics. The sequence of topics covered was randomly assigned to each subject. To measure prior knowledge, ten multiple-choice questions covering detail and concept knowledge were given for each topic.

On the second occasion, a reading comprehension instrument was administered. For this instrument, four passages were selected, one for each topic from a popular newsmagazine and a book on supernatural events. Each passage was approximately 400 words in length and 12th grade reading level (as predicted by the Fry readability graph (Fry, 1977)). A comprehension measure consisting of ten multiple-choice items was constructed for each passage. One question elicited the main idea or gist of the passage, one the author's purpose for writing the passage, and the others details and text-based inferences. All four comprehension measures were administered to each subject. The order of presentation of the passages was randomly assigned to each subject. Immediately following the comprehension instrument, subjects received a second prior knowledge survey covering the two topics not previously surveyed.

Data Analysis

Preliminary data analysis indicated that the desired orthogonal pattern of topics in terms of prior knowledge and interest was not achieved.

Multiple regression analyses were performed on the data for each of the four topics. Four independent variables were entered into the regression equation as follows: reading ability, as measured by

the California Achievement Test (California Test Bureau, 1977); gender of subject; prior knowledge survey score; interest rating. The dependent variable was the comprehension score for the passage. This particular order was chosen to determine the effect of interest after the effects of the other variables had been accounted for or controlled.

Findings of the Study

The findings relative to the two research questions are as follows:

1. Results of the study indicated that interest was a significant factor affecting comprehension in only two of the topics, classical music and politics. The amount of variance accounted for by the interest factor was very small. For the other two topics, rock and roll music and supernatural events, the effect of interest was not significant.

2. No significant interactions among or between the independent variables of reading interest, reading ability, gender of the students, and prior knowledge of the topics was found in relation to the dependent variable of comprehension of expository materials read by ninth grade students.

Other relevant findings include:

3. Reading ability was a significant factor affecting comprehension for all four topics. The amount of variance accounted for by the reading ability factor was great.

4. Prior knowledge was a significant factor affecting comprehension for the topic of supernatural events only. The amount

of variance accounted for by the prior knowledge factor was very small.

5. Gender of the subject was a significant factor affecting comprehension for the topic of supernatural events only. The amount of variance accounted for by the gender factor was very small.

Conclusions and Discussion

For the subjects of this study, topic interest was only a marginal predictor of how well they comprehended the expository texts used. In only two of the four passages was the effect of interest significant.

The conclusions drawn from this study and some possible explanations for the results are:

1. The interest factor's effect on comprehension is topic specific. The results of this study seem to indicate that the effect of interest on comprehension is related to the specific topic of the passage being read. It would be inadvisable to generalize these findings to other topics.

While the desired orthogonal pattern of topics was not achieved, the pattern was not essential for fulfillment of the purpose of the study. Differences and similarities across the four topics selected were great enough for comparisons to be made.

It is interesting to note that the significant effect was indicated for the two low interest topics, politics and classical music. It would seem, then, that when interest in a topic is low, comprehension is affected during reading, whereas when interest in a

topic is high, other factors are operating in affecting comprehension. However, the amount of variance accounted for by the effect of interest was very small even when it was significant.

In addition, the reasons for a person's interest or disinterest in a topic may be idiosyncratic. It may be that a reader is not interested in a topic because he/she has sufficient knowledge about the topic and need not read any more about it. Other very personal reasons can affect one's interest. As a result, a quantitative measure of interest may be inadequate to compare one person's interest with another person's interest.

2. The task orientation of the subjects obscured the effects of interest on comprehension. This is possibly one of the strongest explanations for the results of the study. The subjects were told to carefully read the passages and that questions would follow. As a result, the subjects probably suppressed the effect of their personal interest to some extent in the passage being read. As in most school and testing situations, students are asked to read texts regardless of their interests. The task demands require that students overcome their interests in order to understand the texts that they confront.

3. The least carefully controlled aspect of this study was the text characteristics of the passages. While the sentence and syllable counts of the passages were approximately the same, other text characteristics, such as number of propositions, cohesiveness, and style, were not controlled. A cursory reading of the passages reveals that some passages were apparently more difficult to read than others.

It is postulated that text difficulty not only affects comprehension but may affect interest as well.

There appeared to be a floor effect for the comprehension instruments, i.e., the distributions of scores were positively skewed with many scores at the bottom. This indicates that the instruments may have been too difficult for the sample of subjects used in the study. The resulting correlations of the comprehension scores with the other variables were accordingly depressed.

4. Measurement errors may constitute a threat to any study. The present study is no exception to this. Measurement of the variables of interest, prior knowledge, and comprehension was critical. The possibility of measurement errors requires that the results of this study be examined cautiously.

The inadequacy of quantitative interest measures to compare the individuals has already been mentioned. Along this same line, quantitative measures of interest are ipsative rather than normative, that is, a high rating by one person does not necessarily equate with a similar high rating by another person.

The measure of prior knowledge used in this study did not relate well with the measure of comprehension. A conclusion that prior knowledge did not effect comprehension cannot be made without equivocation. The extent to which the measure of prior knowledge accurately measured the subjects' background knowledge of the topics is questionable. The instruments designed for this study sampled general and specific topic knowledge. The whole range of topic knowledge was not represented. A subject may have had great background knowledge of

some specific aspects of a topic but not others. As a result, the instrument may have inadequately measured the subjects' prior knowledge. A different measure may have produced different results.

A significant aspect of this study was the instrument used to measure comprehension. Rather than a Cloze procedure, a traditional multiple-choice format was used. While the scores from this instrument did not relate well with the measure of interest, they did relate well with the reading ability scores of a similar comprehension instrument. Measurement of comprehension is a hotly contested issue in reading research. In light of this, only a tentative conclusion about the effect of interest on comprehension can be made.

5. A significant limitation of the present study was that the subjects were considered average and above average readers. Therefore, the results cannot be generalized to a wider population, especially to below average readers. Interest may well have a greater effect for these readers, as suggested by Shnayer (1969). In addition, correlations generated from restricted samples, such as the sample of only average and above average readers used in this study, tend to underestimate the relationships described.

Implications for Research and Classroom Instruction

The effect of interest on comprehension has long been assumed. As more research has been conducted, this assumption has been tempered and qualified. The present study demonstrated that the assumption that interest effects comprehension cannot be made unequivocally. The findings of the present study indicated that interest may be only a

marginal predictor of reading comprehension. The indication that other factors may have been operating has great implications for research in this area. Studies investigating other factors and using different measurement techniques are needed.

For the classroom, this study seems to indicate that interest is a suppressed factor in reading comprehension of average and above average readers in school-like reading. The motivation to understand what is read may not necessarily be one's interest in the topic. Teachers should be concerned about how strong a motivator interest is in relation to other motivators for each student. If interest is a strong motivator for a particular student, the teacher would be wise to generate interest in topics under study.

A well-known caveat is in order for researchers and teachers alike: Never ASSUME anything. For researchers, assumptions that certain effects are simply related should be avoided. For teachers, assumptions about individual students made from general observations should be avoided.

Suggestions for Further Research

The following suggestions for further research are made:

1. Differential effects of interest across topics needs further study.
2. The effect of interest in settings other than school and testing situations needs to be examined.
3. Effects of text characteristics, other than readability by formula, and text difficulty on interest and comprehension need to be investigated.

4. Measurement of interest, prior knowledge, and comprehension needs to be clarified and validated.

5. The effect of interest across a normally distributed sample of readers needs to be closely studied.

APPENDIX A

PRELIMINARY INTEREST INVENTORY

READING INTEREST INVENTORY

Name _____

Directions: Read each of the topics listed below. Put a check by each topic that you would like to read something about. Put a circle next to each topic that you would not like to read about.

- | | | |
|----------------------------|---------------------------|-----------------------|
| Games | Saving Energy | Politics |
| Animals | Choosing a Career | Consumer Information |
| Famous Men or Women | Cars or Motorcycles | Government |
| Country and Western Music | Cooking | Adventure |
| Supernatural Events | Physical Fitness | Current Events |
| American History | Human Behavior | Child Care |
| Classical Music | Television Stars | Sports |
| Ancient History | Fashions & Hairstyles | Drug Use and Abuse |
| Rock and Roll Music | People in Other Countries | Geography |
| Protecting the Environment | Scientific Experiments | Languages |
| Advice on Dating | Aircraft and Flying | Sexual Behavior |
| Art and Painting | Religion | Space Exploration |
| Crafts | Wildlife | Problems of Teenagers |
| | | Education |

Directions: On the lines below, write the five topics from the list that you would most like to read about and the five topics that you would least like to read about. Write the topics down in order of preference.

Topics most liked (start at the top and work down)

Topics least liked (start at the bottom and work up)

- | | |
|----------|-----------|
| 1. _____ | 36. _____ |
| 2. _____ | 37. _____ |
| 3. _____ | 38. _____ |
| 4. _____ | 39. _____ |
| 5. _____ | 40. _____ |

APPENDIX B

INTEREST SURVEY

Print your name on the label
below:

Teacher: (circle one)

Pennington Hart

Period: (circle one)

1 2 3 4 5 6

Sex: (circle one)

Male Female

READING INTEREST SURVEY

Instructions: For each of the four topics below, rate your interest in reading an article about the topic. The ratings range from 1 (not at all interested) to 7 (very interested).

(Circle one number for each topic)	not at all interested	moderately interested	very interested
Rock and Roll Music	1 2	3 4 5	6 7
Classical Music	1 2	3 4 5	6 7
Politics	1 2	3 4 5	6 7
Supernatural Events	1 2	3 4 5	6 7

APPENDIX C

BACKGROUND KNOWLEDGE SURVEY

Included in this appendix are the instructions for the background knowledge surveys that were administered during the first and second data collection periods. The sets of questions for each of the topics are also included.

Instructions for the First Background Knowledge Survey

BACKGROUND KNOWLEDGE SURVEY

Instructions: On the following pages, you will answer some questions about two of the topics above. Read each question carefully. Select the answer that best fits. Turn the page and begin.

Instructions for the Second Background Knowledge Survey

After the four articles and questions, you will be asked 10 questions about each of two topics to check your background knowledge in those topics not checked before.

Background Knowledge Questions for the Topic of Rock and
Roll Music

Background Knowledge Survey

ROCK AND ROLL MUSIC

Instructions: Select the best response from the choices given.
Write the letter of the answer chosen in the space provided.

- _____ 1. Which of the following is not the name of a popular rock and roll band? a) Journey, b) Asia, c) Styx, d) The Hotels, e) Foreigner
- _____ 2. Which of the following instruments would least likely be played by a rock and roll band? a) violin, b) harmonica, c) tambourine, d) clarinet, e) piano
- _____ 3. When did rock and roll music become very popular? a) early 70's, b) late 60's, c) early 60's, d) late 50's, e) early 50's
- _____ 4. Who could be considered the "Father" of rock and roll? a) Joe Cocker, b) Chuck Berry, c) John Lennon, d) John Lee Hooker, e) Bill Haley
- _____ 5. On which of the following record labels would you least likely find rock and roll music? a) Angel, b) Warner Brothers, c) Epic, d) Asylum, e) A & M
- _____ 6. Which of the following is not a famous singer/songwriter? a) Ted Nugent, b) Karla Bonoff, c) Keith Jarrett, d) Mick Jagger, e) Pat Benatar
- _____ 7. Which of the following is not a band that started out in the 60's? a) Steve Miller Band, b) Rolling Stones, c) Genesis, d) Santana, e) The Who
- _____ 8. How many records must be sold before artists receive a gold record? a) 100,000, b) 250,000, c) 500,000, d) 1 million, e) 2 million
- _____ 9. Which magazine lists top-selling records in all categories? a) Billboard, b) High Fidelity, c) Rolling Stone, d) Variety, e) Tiger Beat
- _____ 10. Robert Plant used to be a member of which group? a) Rolling Stones, b) The Who, c) Yes, d) Cheap Trick, e) Led Zeppelin

Background Knowledge Questions for the Topic of Classical Music

B

Background Knowledge Survey

CLASSICAL MUSIC

Instructions: Select the best response from the choices given.
Write the letter of the answer chosen in the space provided.

- _____ 1. Which of the following is not the name of a famous composer? a) Strauss, b) Stokowski, c) Verdi, d) Bach, e) Chopin
- _____ 2. Which of the following instruments would least likely be played by an orchestra? a) cello, b) bassoon, c) saxophone, d) tympani, e) oboe
- _____ 3. When was Romantic music most popular? a) 1500's, b) 1600's, c) 1700's, d) 1800's, e) 1900's
- _____ 4. Who is the conductor of the New York Philharmonic Orchestra? a) Zubin Mehta, b) Leonard Bernstein, c) Georg Solti, d) John Williams, e) Sarah Caldwell
- _____ 5. On which of the following record labels would you least likely find classical music? a) Elektra, b) DGG, c) Columbia, d) RCA, e) Seraphim
- _____ 6. Which of the following is not a famous piano player? a) Pinchas Zuckerman, b) Vladimir Horowitz, c) Artur Rubenstein, d) Gary Grafman, e) Van Cliburn
- _____ 7. Which of the following can be found in Baroque music? a) the symphony, b) the fugue, c) the sonata, d) the suite, e) the aria
- _____ 8. Johann Sebastian Bach wrote which of the following? a) Brandenburg Concertos, b) Toccata and Fugue in D-minor, c) Well-tempered Clavier, d) Musical Offering, e) all of these
- _____ 9. Who wrote the "Nutcracker Suite"? a) Beethoven, b) Nureyev, c) Tchaikovsky, d) Rachmaninoff, e) none of these
- _____ 10. Which of the following is not an opera singer? a) Maria Callas, b) Beverly Sills, c) Luciano Pavarotti, d) Nino Cerruti, e) Marian Anderson

Background Knowledge Questions for the Topic of Politics

C

Background Knowledge Survey

POLITICS

Instructions: Select the best response from the choices given.
Write the letter of the answer chosen in the space provided.

- _____ 1. President Reagan is considered to be politically
a) conservative, b) radical, c) moderate, d) liberal,
e) reactionary.
- _____ 2. Which of the following people does not represent Arizona
in the United States Congress? a) Dennis DeConcini,
b) Morris Udall, c) Jim Kolbe, d) Barry Goldwater,
e) Bob Stump
- _____ 3. The lowest level of political party organization is
the a) city, b) county, c) legislative district,
d) ward, e) precinct.
- _____ 4. The sharing of power between the states and national
government is called a) checks and balances, b) separ-
ation of power, c) republicanism, d) federalism,
e) delegating authority.
- _____ 5. The city of Tucson has which form of government?
a) mayor-council, b) council-manager, c) commission,
d) board of supervisors, e) unincorporated
- _____ 6. The main source of income for school districts is
a) sales taxes, b) federal grants, c) income taxes,
d) property taxes, e) education tax credits.
- _____ 7. A lobbyist is a) public opinion poll taker, b) a
government agency, c) a Congressional aide, d) an
adviser to the President, e) a person who tries to
influence law making.
- _____ 8. The people can petition the government a) only in
general election years, b) only if they are registered
voters, c) only to change laws, d) only to reduce taxes,
e) only to recall elected officials.
- _____ 9. The term of office for the President is a) two years,
b) four years, c) six years, d) eight years, e) none
of these.
- _____ 10. In order to vote, you must a) be a tax payer, b) be
able to read and write, c) be 18 years old, d) live
in one place for one year, e) all of these.

Background Knowledge Questions for the Topic of Super-
natural Events

D

Background Knowledge Survey

SUPERNATURAL EVENTS

Instructions: Select the best response from the choices given.

Write the letter of the answer chosen in the space provided.

- _____ 1. Mind readers, such as the popular Amazing Kreskin, are also called a) numismatists, b) craniologists, c) psycholinguists, d) numerologists, e) clairvoyants.
- _____ 2. Which of the following people would not be concerned with supernatural events? a) Jeanne Dixon, b) Stephen King, c) Margaret Mead, d) Eric von Däniken, e) Stephen Spielberg
- _____ 3. The Bermuda Triangle is a) a voodoo symbol, b) an area where ships and planes have disappeared, c) an area where tornados occur frequently, d) a symbol found carved in the earth in South America, e) an area of frequent UFO sightings.
- _____ 4. A poltergeist is a) the German word for haunted house, b) the spirit of a nonbeliever, c) a black witch, d) an extraterrestrial communication, e) a spirit that is attracted to children.
- _____ 5. The Rosicrucian Society studies a) superstitions, b) UFO's, c) astrology, d) ESP, e) witchcraft.
- _____ 6. The belief that the spirit can leave the body and return is called a) reincarnation, b) transubstantiation, c) body levitation, d) astral projection, e) deja vu.
- _____ 7. Ouija boards are used a) to communicate with the dead, b) to track UFO's, c) to ward off evil spirits, d) to plot astrology readings, e) with tarot cards.
- _____ 8. The Abominable Snowman was seen in which mountains? a) the Rockies, b) the Alps, c) the Transylvanian, d) the Himalayas, e) the Pyrenees.
- _____ 9. A pentagram is a symbol used by which of the following? a) numerologists, b) ESP experiments, c) witchcraft, d) astrologists, e) spiritualists
- _____ 10. Most UFO sightings are the result of a) extraterrestrial landings, b) hallucinations, c) cosmic radiation, d) light defraction, e) airplanes.

APPENDIX D

EXPOSITORY TEXT PASSAGES AND COMPREHENSION INSTRUMENTS

This appendix displays the expository text passages and comprehension instruments for each of the topics. The instructions to the students are given below:

Instructions for the Reading Comprehension Instruments

INSTRUCTIONS TO THE STUDENT: You will be reading four articles taken from magazines. After you read each one, you will answer 10 questions to check your understanding of the article. After you have begun answering the questions, do not go back to look at the article. THIS IS NOT A TEST OF YOUR READING ABILITY. It is a check on the influence of interest and background knowledge on reading comprehension.

You will have most of the period to complete this survey. Please be sure to answer every question.

Thank you for your help in this project.

You may begin when instructed to do so.

Expository Text Passage for Rock and Roll Music*

E

The days are over when a rocker had reason to expect that the music he made could reach a large as well as knowing audience; when the radio played a dazzling diversity of music, not a range as thin as the air between two stations. Rolling Stone, the magazine that was once the most prominent and articulate forum for rock culture, has divested itself of much of its music coverage and aims for a more general readership. Record companies have cut back on corporate extravaganzas and are making a little money, mostly by kicking up prices. Under the regency of radio programmers and the tyranny of marketing studies and demographics, rock 'n' roll has been successfully factionalized and fractionalized, smashed into a maze of splinters with few sharp edges. If music has no specific gravity to unite factions of the audience, then it has a shot at success.

The rock spirit can find nothing new to focus on, never mind to rally around. Social issues have usually been slightly suspect in rock. But the upheavals of the 1960s, like Viet Nam and civil rights, redirected and rejustified rock by setting it within a more urgent social context; suddenly there were new subjects to explore, fresh issues for the music to explain, ideas that the rock culture itself could symbolize. That sense of unlimited possibility died in the 1970s. "There was brilliant music made in the 1970s," as Critic Greil Marcus has said, "but because it had no way of linking up to grand mythic dimensions, it lacked the charge that much more inferior music had some years earlier."

The place to start looking for rock's real trouble are the very ones that used to be the sources of its renewal: radio and records. What sells is what the radio plays, but the radio plays only what sells and, often, what sells out. Styx, Foreigner, AC/DC, Journey, REO Speedwagon are variously typical of what Columbia Records Executive Peter Philbin calls a "Madison Avenue approach to rock'n'roll," a cunningly anonymous cruise down the mainstream.

Bands succeed by swapping individuality for corporate style: heavy guitar chords and sappy strings, music by rote, lyrics by reflex. Says one major record executive: "In the 1960s, commercialism and the heart of rock were pretty much the same. In 1982 the commercial center and the soul of the music are different. It's no accident that bland, faceless groups with no defined image, no personality, no boldness have the largest-selling albums. They're the easiest to sell."

* Adapted from the original article "Rock Hits the Hard Place" which appeared in Time, February 15, 1982, pp. 68-69.

Comprehension Instrument for Rock and Roll Music Passage

E

Instructions: Select the best response from the choices given, based on the article just read. Write the letter in the blank.

- ___ 1. The point of this article was to a) tell the history of rock 'n' roll, b) explain how rock is getting more popular, c) describe the problems of present-day rock music, d) put down rock music, e) explain the diversity of rock 'n' roll.
- ___ 2. Rolling Stone is a) critical of rock music, b) going out of business, c) rejustifying rock music to its readership, d) moving away from music, e) controlled by record companies.
- ___ 3. The author believes rock music was best in the a) 1940s, b) 1950s, c) 1960s, d) 1970s, e) none of these.
- ___ 4. According to the article, rock music today is a) full of spirit, b) not symbolic, c) very diverse, d) articulate, e) bland.
- ___ 5. Successful rock bands appeal to a) the issues of the day, b) individuality, c) the commercial centers, d) rock culture, e) the mainstream.
- ___ 6. Record companies a) are making a little money, b) control radio stations, c) are making a lot of money, d) encourage individuality and diversity, e) have factionalized rock 'n' roll.
- ___ 7. Groups with no defined image and no boldness a) link up to grand mythic dimensions, b) have top-selling albums, c) tend to factionalize the audience, d) appeal to the heart of rock, e) cannot succeed today.
- ___ 8. In the 1970s, rock 'n' roll a) helped unite different factions in society, b) was under the control of marketing studies, c) and commercialism were pretty much the same, d) lacked the charge of earlier music, e) explored new subjects and issues.
- ___ 9. Social issues have a) been rock's real troubles, b) factionalized rock's audience, c) been slightly suspect in rock, d) kicked up record prices, e) been the symbols of rock 'n' roll.
- ___ 10. The point of view of the author is that rock music is a) becoming less brilliant, b) unlimited in its possibilities, c) useless noise, d) difficult to understand, e) typical of Madison Avenue.

Expository Text Passage for Classical Music*

F

"If I want to hear good opera," the Empress Maria Theresa once remarked, "I must go to Esterhaza." Such was the fame of Joseph Hayden's group of musicians at the country palace of his patron, Prince Nikolaus Esterhazy, that even crowned heads journeyed from Vienna to rural Hungary to hear his operas. Yet today the two dozen operas by one of music's most important, beloved figures are the least known of his major works. It is an undeserved obscurity.

As Hayden's 250th birthday is celebrated this week, there are signs that his operas' long spell on the shelf is nearing an end. Through the dedicated efforts of scholars like the tireless H. C. Robbins Landon and institutions like the Joseph Hayden Institute in Cologne, many unpublished operas have been carefully edited and issued. Eight have been recorded by Conductor Antal Dorati for Phillips records. Long considered not worthwhile, they are now turning up in the theater as well.

It was Hayden's younger contemporary Mozart who determined the character of modern opera, and in so doing rendered the works of Hayden and most other 18th century composers out of date. Mozart's ability to portray real emotions on the stage instead of stylized attitudes, and his inventive use of the orchestra as an active participant instead of merely an accompanist, powerfully influenced later generations of composers. In the works he created with Writer Lorenzo da Ponte, Mozart's genius transcended the regular fare of master-servant comedies and lovers' farces to create a new kind of thoughtful music drama. Still as Music Expert Barry Brook of the City University of New York points out, "No one has to compare Hayden with Mozart. He is not Mozart."

During the nearly 30 years that he spent in the service of the Esterhazys, Hayden gained vast experience in conducting and producing operas--his own and those of other composers. In a single year, he led a total of 125 performances. But he was never a man of the commercial theater as Mozart was. His operas, mostly light in character, did not have to please any taste but the Esterhazys'. And rather than working closely with a writer to create something new--as Mozart did with da Ponte--Hayden was largely content to accept pre-existing stories. But compared with those of the other composers of the 18th century, his operas are superb musically and deserve a far better fate than they've received.

* Adapted from the original article "Are Hayden Operas Coming Back?" which appeared in Time, April 5, 1982, p. 58.

Comprehension Instrument for Classical Music Passage

F

Instructions: Select the best response from the choices given based on the article just read. Write the letter in the blank.

- ___ 1. The main point of this article was to a) compare Mozart to Hayden, b) praise the operas of Mozart, c) rediscover the operas of Hayden, d) describe Hayden's life, e) explain how Mozart composed operas.
- ___ 2. Mozart and Hayden lived in a) the 18th century, b) Vienna, c) the palace of Prince Esterhazy, d) the 16th century, e) the obscurity of the countryside.
- ___ 3. How many operas did Hayden compose? a) 125, b) thirty, c) 18, d) two dozen, e) eight.
- ___ 4. Mozart's operas were a) typical of operas of his day, b) new and innovative, c) light in character, d) master-servant comedies, e) not very popular.
- ___ 5. Hayden worked for a) Prince Esterhazy, b) the Vienna Opera, c) Empress Maria Theresa, d) the commercial theater, e) Lorenzo da Ponte.
- ___ 6. Hayden's operas were a) overshadowed by Mozart's, b) inventive, c) musically better than Mozart's, d) lovers' farces, e) none of these.
- ___ 7. Hayden based his operas on a) Mozart's example, b) the life of his patron, c) already written stories, d) lovers' quarrels, e) writings of da Ponte.
- ___ 8. Mozart used a) pre-existing scripts, b) the palace of Prince Esterhazy, c) modern characters, d) stylized attitudes, e) the orchestra as active participant.
- ___ 9. Hayden's operas were a) as great as Mozart's, b) popular in his day but later forgotten, c) new and innovative, d) influenced by Mozart's, e) most popular in Vienna.
- ___ 10. The author's point of view is that a) Hayden's operas are not worthwhile, b) Mozart has earned undeserved praise, c) Hayden's operas deserve more attention, d) Hayden's best work are his operas, e) Mozart's best work are his operas.

Expository Text Passage for Politics*

G

Someone once said that no man should be ashamed of his poverty; he should get rid of it as fast as he can. Texas Governor William Clements did just that, transforming himself from an oilfield rough-neck to the millionaire founder of Sedco Inc., one of the world's largest offshore drilling companies. As the first Republican Governor of the Lone Star State in more than century, "Dollar Bill" Clements who is seeking a second term this year, is proud to say, "the people of Texas like the idea that I can call the White House and someone will pick up the phone."

Democratic challenger Mark White, the state attorney general, responds that Clements' connections have done Texas precious little good. There are more than 500,000 Texans out of work and White is determined to pin the blame on Clements and the Republican economic policies that the Governor supports. Billing himself as both a law-and-order candidate and a consumer advocate, he charges that Clements is insensitive to the needs of the workingman.

Unfortunately for White, organization and cash often matter more than sensitivity in Texas politics, and Clements has the edge on both. The incumbent has raised nearly \$10 million (\$3.5 million came from a fund-raising dinner last June attended by President Reagan), and will probably outspend White by more than 3 to 1.

White's best hope is getting out a large vote in the heavily Democratic state. Both candidates have fervently courted the Mexican Americans of South Texas, who usually vote Democratic, but even there Clements has some advantages. He may be seen as the candidate of "the Anglos and the big-business interests," as one Hispanic activist put it, but White is remembered as the attorney general who fought bilingual education and public schooling for children of illegal aliens. Earlier, as Texas secretary of state in 1975, White opposed extension of the Voting Rights Act. Says Roy Barrera, a Hispanic judge appointed by Clements: "The young Hispanics are not locked into the Democrats."

The campaign has taken a nasty turn. White says Clements is "a clown" who uses "smear tactics." Clements says the attorney general "is an incompetent lawyer" who lost most of his big cases. Responding, somewhat lamely, that he has won most of those that he appealed, White declares, "You've got to fight." Facing Dollar Bill's well-oiled assault, state Democratic leaders are wondering if White lacks the organization and resources to win.

* Adapted from the original article "'Dollar Bill's' Friends Are Rich" which appeared in Time, October 11, 1982, p. 16.

Comprehension Instrument for Politics Passage

G

Instructions: Select the best response from the choices given, based on the article just read. Write the letter in the blank.

- ___ 1. The main point of the article is that a) no man should be ashamed of his poverty, b) sensitivity matters in Texas politics, c) connections with the White House will help win an election, d) White will have a difficult time unseating Clements, e) Clements faces a serious challenge from White.
- ___ 2. Which of the following is not true of Clements? a) millionaire, b) opposed extension of the Voting Rights Act, c) incumbent, d) has strong organization, e) accused of "smear tactics".
- ___ 3. According to the article, which group has the most political power in Texas? a) Mexican Americans, b) workers, c) Democrats, d) big business, e) Republicans.
- ___ 4. How many Texans are out of work? a) 100,000, b) 250,000, c) 500,000, d) 1 million, e) 10 million
- ___ 5. Mexican Americans will probably support a) White, the Democrat, b) Clements, the Republican, c) White, the Republican, d) Clements, the Democrat, e) unable to tell.
- ___ 6. Which candidate is backed by big business? a) White, b) Clements, c) Barrera, d) both backed about equally, e) unable to tell.
- ___ 7. Which issue will hurt White the most? a) law and order, b) Unemployment, c) educating children of illegal aliens, d) the economy, e) consumer rights.
- ___ 8. Which issue will hurt Clements the most? a) law and order, b) unemployment, c) educating children of illegal aliens, d) the economy, e) consumer rights.
- ___ 9. Which of the following will not be a factor in the election? a) Mexican Americans, b) organization and cash, c) Texas oil, d) voter turnout, e) President Reagan.
- ___ 10. The point of view of the author is that a) White will defeat Clements, b) money alone cannot win an election, c) Clements will be hurt by his stand on Voting Rights, d) Clements will have little trouble defeating White, e) the race is too close to call.

Expository Text Passage for Supernatural Events

H

One of the most convincing accounts of UFO sightings is the famous New Zealand sighting of December 1978. In this instance the UFO was not only spotted by eyewitnesses and tracked by radar, but was also filmed.

On December 30, 1978, a film crew led by Australian Television Reporter, Quentin Fogarty, took off from Blenheim Airport in South Island, New Zealand, on a flight to Wellington. They were aboard the flight—a newspaper delivery run—because Fogarty had been asked by his office in Melbourne to investigate a UFO which had, apparently, tracked another plane down the coast for some 12 miles a few nights earlier. At around midnight, they encountered some bright lights above the town of Kalkoura, on the northeast coast, and Wellington radar confirmed that they too had been picking up unidentified targets in the area. While the amazed reporter taped a commentary, the cameraman managed fleetingly to capture some of the lights on film. On the return journey something even more remarkable happened. A bright object, which the cameraman described as having a brightly lit base with a transparent dome, appeared on the starboard side of the aircraft. When the pilot headed for the object, it kept its relative distance from the plane. Then, when the pilot returned to his previous course, it sped in front of the aircraft, to the left, and then disappeared beneath it. Once again, ground radar confirmed unidentified targets in the area.

As soon as the film was shown on television throughout the world, astronomers were offering explanations. Some suggested that the film crew had seen meteors, others a planet—Jupiter and Venus were the favorites—and yet others maintained that atmospheric conditions had caused the lights of a Japanese fishing fleet in the area to be reflected in the sky. At the time, they seemed quite plausible explanations, but an impressively detailed examination of the film and of the eyewitnesses leaves the case still wide open. It was conducted by Optical Physicist Bruce Maccabee. In his lengthy report, he considers all the explanations advanced but none of them provides a convincing answer. For example, he was able to dispose of the planetary explanation by showing that Venus was not yet visible when the sightings were made, and that other planets were not bright enough and in the wrong direction. Similarly, the Japanese fishing fleet was, among other things, too far away for its lights to have been seen by Fogarty and his colleagues.

* Adapted from the original article "UFO Sightings" which appeared in S. Welfare & J. Fairley, Arthur C. Clarke's Mysterious World, New York: A & W Publishers, 1980, pp. 173-176.

Comprehension Instrument for Supernatural Events Passage

H

Instructions: Select the best response from the choices given, based on the article just read. Write the letter in the blank.

- ___ 1. The main point of this article was to a) explain UFO sightings, b) describe how UFO's are detected, c) give logical explanations for a UFO sighting, d) describe a UFO sighting in New Zealand, e) describe a UFO sighting by a Japanese fishing fleet.
- ___ 2. Which of the following was not an explanation given for the UFO sighting? a) meteors, b) lights of a fishing fleet, c) Jupiter, d) atmospheric conditions, another plane.
- ___ 3. Why was the film crew in the plane? a) to deliver newspapers, b) to report on a plane crash, c) to photograph planetary activity, d) to investigate another UFO sighting, e) article did not give an explanation.
- ___ 4. The UFO sighting was confirmed a) by the film crew, b) by the pilot, c) on film, d) by surface radar, e) all of these.
- ___ 5. Venus was dismissed as an explanation because a) it was not in the sky, b) it was not bright enough, c) it was in the wrong direction, d) it was not the right shape, e) the plane was travelling too fast.
- ___ 6. The detailed examination was conducted by a) the New Zealand government, b) astronomers around the world, c) the film crew, d) Quentin Fogarty, e) an optical expert.
- ___ 7. The film crew sighted the UFO a) only after repeated attempts, b) on three separate occasions but filmed it only once, c) on the return flight from Kakoura, d) twice on the same night, e) from the ground as well as in the air.
- ___ 8. The UFO followed the film crew a) for 12 miles down the coast, b) from Kakoura to Wellington, c) to the fishing fleet, d) on the midnight flight out only, e) after the pilot tried to follow the object.
- ___ 9. The planetary explanation was a) very plausible, b) confirmed by checking atmospheric conditions, c) dismissed by astronomers, d) not convincing at all, e) never really considered.
- ___ 10. The author's point of view is that the UFO sighting was a) easily explained, b) a halucination, c) not to be discredited, d) actually an atmospheric condition, e) really a planet.

LIST OF REFERENCES

- Adams, M. J., & Bruce, B. C. Background knowledge and reading comprehension. In J. A. Langer & M. T. Smith-Burke (Eds.), Reading meets author/Bridging the gap. Newark, Delaware: International Reading Association, 1982.
- Adams, M. J., & Collins, A. A schema-theoretic view of reading. In R. O. Freedle (Eds.), New directions in discourse processing, (Vol. 2). Norwood, New Jersey: Ablex Publishing Co., 1979.
- Alderson, J. C. Cloze Procedure (Ebbinghaus Completion Method) as applied to reading. In O. K. Buros (Ed.), The eighth mental measurements yearbook, (Vol. 2). Highland Park, New Jersey: Gryphon Press, 1978.
- Anderson, R. C., Reynolds, D. D., Schallert, D. L., & Goetz, E. T. Frameworks for comprehending discourse. American Educational Research Journal, 1977, 14, pp. 367-381.
- Are Hayden operas coming back? Time, April 5, 1982, p. 58.
- Asher, S. R. Topic interest and children's reading comprehension. In R. J. Spiro, B. Bruce, & W. F. Brewer (Eds.), Theoretical issues in reading comprehension. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers, 1980.
- Asher, S. R., Hymel, S., & Wigfield, A. Influence of topic interest on children's reading comprehension. Journal of Reading Behavior, 1978, 10, 35-47.
- Asher, S. R., & Markell, R. A. Sex differences in comprehension of high- and low-interest reading materials. Journal of Educational Psychology, 1974, 66, 680-687.
- Barbe, W. Interests and the teaching of reading. Education, 1963, 83, 486-490.
- Barchas, S. E. Expressed reading interests of children of differing ethnic groups (Doctoral dissertation, University of Arizona, 1971). Dissertation Abstracts International, 1972, 32, 2294A. (University Microfilms No. 7129505)
- Belloni, L. F., & Jongasma, E. A. The effects of interest on reading comprehension of low-achieving students. Journal of Reading, 1978, 22, 106-109.

- Bernstein, M. R. Relationship between interest and reading comprehension. Journal of Educational Research, 1955, 49, 283-288.
- Beyard-Taylor, K. C., & Sullivan, H. J. Adolescent reading preferences for type of theme and sex of character. Reading Research Quarterly, 1980, 16, 104-120.
- California Test Bureau. The California achievement tests. Monterey, California: CTB/McGraw-Hill, 1977.
- Dewey, J. Interest and effort in education. Cambridge, Massachusetts: The Riverside Press, 1913.
- "Dollar Bill's" friends are rich. Time, October 11, 1982, p. 16.
- Elliott, P. G., & Steinkellner, L. L. Reading preferences of urban and suburban secondary students: Topics and media. Journal of Reading, 1979, 23, 121-125.
- Entin, E. B. Relationships of measures of interest, prior knowledge, and readability to comprehension of expository passages (Doctoral dissertation, Ohio University, 1980). Dissertation Abstracts International, 1981, 41, 3214B. (University Microfilms No. 8103029)
- Estes, T. H., & Vaughan, J. L., Jr. Reading interest and comprehension: Implications. The Reading Teacher, 1973, 27, 149-153.
- Fry, E. Fry's readability graph: Clarification, validity, and extension to level 17. Journal of Reading, 1977, 21, 242-252.
- Hare, V. C. Preassessment of topical knowledge: A validation and an extension. Journal of Reading Behavior, 1982, 14, pp. 77-85.
- Holmes, B. C., & Roser, N. L. A comparison of techniques used to assess readers' prior knowledge. Paper presented at the Annual Meeting of the National Reading Conference, Dallas, Texas, December 1980. (ERIC Document Reproduction Service No. ED 198 512)
- Huber, M. B. Influence of intelligence upon children's reading interests. New York: Teachers' College Bureau of Publications, Columbia University, 1928.
- Joels, A. R. W. Assessing children's reading interests: A methodological study of the reliability and comparability of instruments with differing response formats (Doctoral dissertation, University of Arizona, 1978). Dissertation Abstracts International, 1978, 39, 831A. (University Microfilms No. 7813909)
- Johnston, P. H. Reading comprehension assessment: A cognitive basis. Newark, Delaware: International Reading Association, 1983.

- Jung, R. Leisure in three cultures. The Elementary School Journal, 1967, 67, 285-295.
- Kline, L. W. Market research: What young people read. Journal of Reading, 1980, 24, 284-286.
- Langer, J. A., & Nicolich, M. Prior knowledge and its effect on comprehension. Journal of Reading Behavior, 1981, 13, 373-379.
- McKenna, M., & Robinson, R. D. An introduction to the cloze procedure. Newark, Delaware: International Reading Association, 1980.
- Norvell, G. W. The reading interests of young people. New York: D. C. Heath & Co., 1950.
- Pauk, W. The interest level--That's the thing. Journal of Reading, 1973, 16, 459-461.
- Pearson, P. D., Hansen, J., & Gordon, C. The effect of background knowledge on young children's comprehension of explicit and implicit information. Journal of Reading Behavior, 1979, 11, 201-209.
- Pearson, P. D., & Johnson, D. D. Teaching reading comprehension. New York: Holt, Rinehart and Winston, 1978.
- Pedhazur, E. J. Multiple regression in behavioral research. New York: CBS College Publishing, 1982.
- Rock hits the hard place. Time, February 15, 1982, pp. 68-69.
- Schallert, D. L. The significance of knowledge: A synthesis of research related to schema theory. In W. Otto & S. White (Eds.), Reading expository material. New York: Academic Press, 1982.
- Shanahan, T., Kamil, M., & Robin, A. Cloze as a measure of inter-sentential comprehension. Reading Research Quarterly, 1982, 17, 229-255.
- Shnayer, S. W. Relationships between reading interest and comprehension. In J. A. Figurel (Ed.), Reading and realism, proceedings of the fourteenth annual meeting of the International Reading Association. Newark, Delaware: International Reading Association, 1969.
- Statistical Package for the Social Sciences, (Version 8.3.0). Chicago: SPSS Inc., 1982.
- Stevens, K. C. The effect of background knowledge on the reading comprehension of ninth graders. Journal of Reading Behavior, 1980, 12, 151-154. (a)

- Stevens, K. C. The effect of topic interest on the reading comprehension of higher ability students. Journal of Educational Research, 1980, 73, 365-367. (b)
- Strang, R. Exploration in reading patterns. Chicago: University of Chicago Press, 1942.
- Terman, L. M., & Lima, M. Children's reading: A guide for parents and teachers. New York: D. Appleton & Co., 1925.
- Thorndike, R. L. A comparative study of children's reading interests. New York: Teachers' College Bureau of Publications, Columbia University, 1941.
- Thorndike, R. L., & Henry, F. Differences in reading interest related to differences in sex and intelligence level. The Elementary School Journal, 1940, 40, 751-763.
- Vaughan, J. L., Jr., & Gaus, P. J. Secondary reading inventory: A modest proposal. Journal of Reading, 1978, 21, 716-720.
- Walker, S. M., Noland, R. G., & Greenshields, C. M. The effect of high and low interest content on instructional levels in informal reading inventories. Reading Improvement, 1979, 16, 297-300.
- Waples, D., & Tyler, R. W. What people want to read about. Chicago: University of Chicago Press, 1931.
- Weber, C. K. Cognitive and affective influences on text comprehension (Doctoral dissertation, New York University, 1979). Dissertation Abstracts International, 1980, 40, 5802A. (University Microfilms No. 8010310)
- Welfare, S., & Fairley, J. UFO sightings. Arthur C. Clarke's Mysterious World. New York: A & W Publishers, 1980.