A QUASI-EXPERIMENTAL ANALYSIS
OF THE EFFECTS OF
INTENSIVE VOCABULARY INSTRUCTION
ON FOURTH GRADE STUDENTS'
KNOWLEDGE OF OHIO HISTORY

A MASTER'S PROJECT

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by

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TABLE OF CONTENTS

TABLES

ACKNOWLEDGEMENTS

DEDICATION

For my grandpa, Charles Furio, who
always had a story to share.

Grandpa, I will always remember "phoebe"---spelled
p-h-o-e-b-e, pronounced (FEE-bee)---a small American bird.

CHAPTER I

INTRODUCTION

Purpose of the Study

Students entering the first grade are taught how to read. As students progress through the primary grades, they are mainly exposed to narrative texts. During and beyond the intermediate grades as the curriculum tends to become more content knowledge based, students are expected to read and comprehend vast amounts of information as portrayed through expository texts. The students' comprehension of expository text will largely depend on their understanding of the vocabulary used.

Students who study the history of Ohio often use an expository text as a resource to learn the concepts. Students may encounter many unfamiliar vocabulary words and concepts as portrayed through the text. These unfamiliar words can be roadblocks to reading comprehension. Both past and present research reaffirms that word knowledge is the most important factor in reading comprehension. Davis (1944) performed a noted study in which word knowledge was shown to be the most important factor in reading comprehension. Research also indicates a high correlation between students' demonstrated reading comprehension levels and their vocabulary knowledge (Hilliard, 1924; Mezynski, 1983).

Traditional vocabulary instruction has centered on definitional and contextual approaches. Teachers merely require students to look up vocabulary words in their glossary and then write the definition in their own words. These types of instructional methods in isolation are often ineffective as they fail to produce in-depth word knowledge. An alternative approach to this traditional method is intensive vocabulary instruction (Nagy, 1988).

This researcher believes that by using intensive vocabulary instructional

methods students will more likely comprehend and retain knowledge about Ohio's history. Intensive vocabulary instruction is appropriate for words that are conceptually difficult and for concepts that are not part of students' everyday encounter (Nagy, 1988). An advantage of intensive vocabulary instruction is that it enables students to incorporate instructed words into their writing or speaking vocabularies (Duin and Graves, 1987). Since many of the concepts and vocabulary words contained in the students' Ohio history text are of little or no part of students' schema, intensive vocabulary instruction can serve as a valuable instructional tool.

Current research has indicated that a key component to reading comprehension is the linking of new information to prior knowledge. Comprehension is often described as "the building of bridges between the new and the known" (Pearson and Johnson, 1978). According to recent research, Johnson (1984) and Johnston & Pearson (1982) point out "background knowledge about a topic, particularly understanding of key vocabulary, predicts text comprehension better than does any measure of reading ability or achievement." Through reviewing of the related literature this researcher has discovered that intensive vocabulary methods take into account the importance of activating and building upon prior knowledge.

Intensive vocabulary instructional methods may afford students the opportunity to see relationships between key vocabulary words and concepts and may enable students to be actively involved in the acquisition of in-depth word meaning in the subject area of Ohio history. This researcher finds direct vocabulary instruction to be an integral role in the teaching of Ohio history.

Statement of the Problem

The purpose of this study was to evaluate the effectiveness of using

2

intensive vocabulary instructional methods with fourth graders on their knowledge of Ohio history.

Hypothesis

There will be no significant difference in the mean pre and posttest knowledge of Ohio history scores of fourth grade students who have been taught Ohio history through the use of intensive vocabulary instructional methods.

Assumptions

In order to carry out this study, this researcher made the following assumptions. First, the researcher assumed that all students would fully attend and participate in the Ohio history lessons. The researcher also assumed that the testing instrument measured knowledge of Ohio history.

Limitations

A limitation of using the quasi-experimental research method is the T1 X T2 design. There was no control group in this study. Internal validity of this study may have been affected by the maturation process. Internal validity may also have had an historic variable as well. The subjects were exposed to Ohio history concepts in other subject areas. The knowledge gained may have transferred to the experimental setting. Another limitation is that there is no exact assurance that the treatment may have been the only or even the major factor in the difference between the pretest and posttest. This researcher also recognizes testing effects as a limitation. The pretest may have sensitized the subjects to the subject matter, altered attitudes, or influenced motivation.

Definition of Terms

Ohio History constitutes the study of historical events and people in the shaping of Ohio.

3

Knowledge Bases refer to defined objective areas that students are responsible for knowing. The testing instrument is based on these defined objectives.

Primary Grades are grades one through three.

Intermediate Grades are grades four and five.

Prior Knowledge refers to one's schema about a concept or word.

Intensive Vocabulary Instructional Methods (IVIM) are types of teaching methods used to teach vocabulary. These methods go beyond giving definitional and contextual information. Types of intensive vocabulary methods are semantic feature analysis, semantic mapping, and concept of definition.

Semantic Feature Analysis (SFA) is an intensive vocabulary method that assists students in seeing relationships among key concepts and vocabulary (Alvermann & Phelps, 1994). A Venn diagram is a type of SFA that is used when only two words or concepts are being compared.

Concept of Definition (CD) is a type of IVIM that teaches students the components of information that comprise a definition (Schwartz & Raphael, 1985).

Semantic Mapping is a third type of IVIM that is a categorical representation of information in graphic form.

Narrative Texts tend to be fictional in nature. They follow the story format of plot, setting, characterization, and theme.

Expository Texts are written in a nonfictional style. Their main purpose is to convey vast amounts of factual information to the reader.

CHAPTER II

Review of the Related Literature

Chapter two involves a synthesis of the related literature on the topic of vocabulary instruction. This chapter is divided into three areas. The three areas discussed are: characteristics of effective vocabulary instruction, types of intensive vocabulary instructional methods (IVIM), and implementation of IVIM.

Characteristics of Effective Vocabulary Instruction

One characteristic of effective vocabulary instruction is that it assists students in relating new vocabulary to their background knowledge or schema. Since the mid 1980's there has become an increasing awareness on the important relationship between prior knowledge and reading comprehension. A reader's vocabulary serves as a means for labeling ideas that already exist in the mind. Effective vocabulary instruction develops additional labels for existing schemata and adds to the schemata as well. Teachers can help students increase reading comprehension by finding ways to activate and retrieve students' prior knowledge about a topic before they begin reading about it. In a similar fashion, vocabulary must be introduced in a meaningful way so that existing knowledge is activated. This provides a connection between the new and old information (Heimlich and Pittelman, 1986).

Nagy (1988) points out that effective vocabulary instruction involves integrating instructed words with other knowledge. This idea stems from schema theory. Nagy explains schema theory in two points: (1) knowledge is structured in sets of relationships rather than independent facts, and (2) information is understood by relating it to what one already knows (Nagy, 1988).

Carr and Wixson (1986) discuss in an article the guidelines for evaluating vocabulary instruction. They point out that not all procedures used to teach vocabulary are as equally effective. A guideline described by Carr and

Wixson is that vocabulary instruction should help students relate new vocabulary to their background knowledge. The benefit is that new vocabulary becomes personally meaningful to the student and the student's understanding of new vocabulary is enhanced in ways that can lead to improved reading comprehension. Also, this practice leads to the retention of new words (Carr and Wixson, 1986).

Many encounters with a new vocabulary word is a second characteristic of effective vocabulary instruction. According to Stahl (1986), two important factors for vocabulary instruction affect comprehension. The first area concerns the number of times the student is exposed to a new word, and the second area concerns the types of information that are given each time. Providing only one or two exposers to a word did not appear to affect comprehension significantly (Stahl, 1986).

Vocabulary instruction should ensure not only that students know what a word means, but also that they have had sufficient exposure to make its meaning quickly and easily accessible during reading. If a reader has to stop to decode or figure the meaning of a word, this interruption can diminish comprehension. Just being able to identify or produce a definition of a word does not guarantee that the reader will remember its meaning. Repetition is necessary for some words (Nagy, 1988).

Alvermann and Phelps (1994) identify five guidelines for vocabulary instruction. First, they urge that students be provided with many encounters to new terms and concepts. A single presentation is rarely enough to convey complex meanings. Second, they also suggest using a variety of activities and contexts when teaching new terms or concepts. This helps students develop fuller meaning for words and prevents students from becoming bored with the

6

same technique. A third guideline discussed by Alvermann and Phelps is that vocabulary instruction should start with what students already know. New terms and concepts can be built based upon what the students already know. The teacher should concentrate on words and strategies that may be used across the curriculum is a fourth guideline. This guideline implies teach to promote transfer. The fifth guideline suggests that discussion should be included as one vocabulary activity. When students have to explain terms in their own words, they tend to process the meanings of the terms more thoroughly (Alvermann and Phelps, 1994).

Graves and Prenn (1986) point out three levels of word knowledge as described by Beck et al. (1979). The three levels are unknown, acquainted, and established. A word at the unknown level would be totally unfamiliar. A word at the acquainted level is one whose meaning is recognized but only with some deliberate attention. A word at the established level is one whose meaning is easily, rapidly, and perhaps even automatically recalled. Vocabulary instruction should move students beyond the first level. In order for this to occur, it requires a number of exposures in a variety of contexts (Beck and McKeown, 1983).

A third characteristic of effective vocabulary instruction is that effective instruction is not limited to definitional and contextual approaches. Nagy (1988) describes two common approaches to teaching vocabulary. One method involves the use of definitions. The student usually is required to look up a definition, write its meaning, and memorize the word. The second method involves the use of context. Students infer the meaning of a new word based on its context. Neither method taken by itself is effective in improving reading comprehension (Nagy, 1988).

Traditionally, much vocabulary instruction has centered on the definitional approach. One should not conclude that definitions are not useful in vocabulary instruction. They will play an essential role in most vocabulary instruction; however, the definitional approach presents some limitations. One needs to recognize the weaknesses and limitations of this approach. Definitions alone can lead to only a relatively superficial level of word knowledge. Many times the definitions in glossaries are not very good. They may be vague or include other words in which the meaning may be unfamiliar. Sometimes the definitions in glossaries are not always applicable to the selection being read. Nagy stresses that by itself, looking up words in a dictionary or memorizing definitions does not reliably improve reading comprehension (Nagy, 1988).

Just as the definitional approach to teaching vocabulary has some limitations and weaknesses, so does the contextual approach. The contextual approach to learning vocabulary is an important element to vocabulary growth and should receive some attention in the classroom. Used as an instructional method by itself, it is ineffective for teaching new meanings as compared to other forms of vocabulary instruction. Context seldom supplies adequate information for the person who has no other knowledge about the meaning of a word (Nagy, 1988).

Stahl (1986) offers three principles of effective vocabulary instruction. One of the principles deals with giving both context and definitions when teaching vocabulary. In order for one to "know" a word, one must be able to perform two tasks. One must know its definitional relations with other words and also be able to interpret its meaning in a particular context. Stahl (1986) found that when only the definition is given without any examples of the word in

context, or when the word is used only in context without the definition, the effects on comprehension were not significant. The strongest effects were found when there was a balance between definitional and contextual information. Stahl (1986) found that vocabulary instruction improves comprehension only when both definitions and contexts are given. The largest effect is when a number of different activities or examples using the word in context are used.

The second principle of effective vocabulary instruction is that it encourages "deep" processing of words. Stahl defines "deep" processing as either making more connections between new and known information or spending more of one's mental effort on learning. The third principle of effective vocabulary instruction offered by Stahl is that students should be given multiple exposures to words. Providing students with multiple exposures in a variety of contexts appeared to improve reading comprehension (Stahl, 1986).

A combination of definitional and contextual approaches is more effective than either approach in isolation. By mixing the two methods it has been shown generally to increase reading comprehension (Stahl and Fairbanks, 1986).

A fourth characteristic of effective vocabulary instruction is that it encourages students to make deep mental processes of a word or concept. Stahl (1986) defines "deep" processing as either making more connections between new and known information (or relating the word to more information than the student already possesses) or spending more of one's mental effort on learning. Vocabulary methods that require students to think more "deeply" about a word and its relationships are more likely to be effective (Stahl, 1986).

Both Stahl (1986) and Nagy (1988) define effective vocabulary instruction as that which helps the learner to use the instructed words meaningfully. The two explain that through "depth of processing" words can be

9

used more meaningfully. Stahl (1986) defines three levels of processing as they apply to vocabulary instruction. The three levels are association, comprehension, and generation. Association processing is when a student learns a word through a comparison. The association could be in the form of a synonym. Comprehension processing involves application of a learned association in order to demonstrate understanding of the word. This may involve the student providing an antonym, fitting the word into a sentence blank, or classifying the word with other words. Generation processing involves taking that comprehended association and creating an entirely new product. Examples of generation processing might include writing the definition in one's own words, comparing the definition to one's own personal experiences, or creating a novel sentence that illustrates the word's meaning clearly. A generation example of understanding could also appear in oral form. Class discussion appears to lead students to process words more deeply. Vocabulary teaching methods requiring generative processing produced greater effects on comprehension than those requiring comprehension processing. Association processing did not have significant effects on comprehension (Stahl, 1986). Nagy explains that the more deeply some information is processed, the more likely it is to be remembered. Nagy also points out that students learn more when they are actively involved. Vocabulary instruction that requires students to think about the meaning of a word and demands that they do some meaningful processing of the word is more effective than instruction that does not (Nagy, 1988).

Carr and Wixson (1986) describe effective vocabulary as that which actively involves students in constructing the meaning of words. They relate this principle to a model of memory (which Nagy also uses) that is know as "depth of

processing" (Craik and Lockhart, 1972). Blachowicz (1985) stated, in reference to the "depth of processing" model that "the harder one works to process stimuli (by constructing a relationship rather than by memorizing a given one, for example) the better one's retention" (Carr and Wixson, 1986).

Four characteristics of effective vocabulary instruction have been discussed. Three types of intensive vocabulary instructional methods will be explained in the next section. The three types of IVIM are semantic mapping, semantic feature analysis, and concept of definition.

<div align="center">Types of Intensive Vocabulary Instructional Methods</div>

One type of intensive vocabulary instruction is semantic mapping. Johnson and Pearson (1984) describe semantic mapping as a categorical structuring of information in graphic form. The strategy provides an individualized content approach to teaching vocabulary by requiring students to relate new words to their own experiences and prior knowledge. A completed semantic map provides the teacher with information about what a student knows about a particular concept or word. It also reveals schema which the teacher can use in order to introduce new concepts (Johnson, Pittelman, and Heimlich, 1986).

Heimlich and Pittelman (1986) describe semantic maps as diagrams that assist students in seeing how words are related to one another. The strategy helps to activate and build on student's prior knowledge. In the past ten years this instructional strategy has been given much attention by both teachers and researchers. Semantic mapping is not a new technique. In the past the strategy has been given such names as "semantic webbing," "semantic networking," or "plot maps." The value of semantic mapping has increased due to researchers increased understanding of the important role that prior

knowledge plays in the reading process (Heimlich and Pittelman, 1986).

Studies have revealed semantic mapping as an effective teaching strategy. In one study Toms-Bronowski (1983) found that fourth through sixth grade students who were taught key vocabulary through semantic mapping and semantic feature analysis (the second type of IVIM to be discussed) significantly outperformed students taught vocabulary through contextual analysis. Other studies have found semantic mapping to be effective in the following ways: it had a greater impact on vocabulary acquisition versus the context cue approach for students with reading disabilities, it has played a significant role in helping minority groups develop vocabulary, it serves as an effective prereading strategy, and it has also been proven to be an effective motivator before reading, serves as a diagnostic tool in assessing a student's prior knowledge, and encourages divergent thinking (Heimlich and Pittelman, 1986).

Semantic feature analysis is a second type of IVIM. It involves presenting students with a grid. On one axis is a set of related words. The other axis contains a set of attributes that each of the words may or may not have. Relationships among the words become readily apparent. The process leads students to an awareness of and an appreciation for the uniqueness of each word. The strategy capitalizes on the way information is stored by category in memory. It can be used to extend, refine, and reinforce vocabulary in the content areas (Pittelman, Heimlich, Berglund, and French, 1991).

Anders and Bos (1986) recommend SFA in order to teach both the vocabulary and the concepts needed for comprehension. The strategy enhances both vocabulary development and reading comprehension. They point out that SFA is different than traditional vocabulary instruction in two ways.

12

They argue that vocabulary should be taught because it is related to the major ideas presented in the text, not because a word is difficult or students have likely had little experience with it. SFA also departs from traditional vocabulary instruction by enabling students to learn the relationships between and among the conceptual vocabulary and the major ideas in the text. They go on to recommend the strategy because it has a sound theoretical and research foundation (Anders and Bos, 1986).

Concept of definition, the third type of IVIM, helps students to gain control of the vocabulary acquisition process. Concept of definition addresses three important factors with regards to vocabulary instruction. It stresses the importance of students being able to figure out new words on their own, it tells students what types of information make up a definition, and it teaches them how to use context clues and their background knowledge in order to increase their understanding of words (Schwartz and Raphael, 1985).

Students are sometimes instructed to look up vocabulary words in a glossary and then write the meaning "in their own words." The problem is that students are not taught explicitly what "defining in their own words" involves. They do not understand what type of information is needed to define a word effectively and how that information can be organized.

Concept of definition addresses this problem through the use of a word map. A word map is a visual representation of a definition. There are three categories that make up the word map. The three categories are: the general class to which the concept belongs, the primary properties or attributes of the concept, and examples of the concept (Schwartz and Raphael, 1985).

The three categories can be translated into three questions to guide elementary students in their search for the word's meaning. The three

13

questions are: what is it, what is it like, and what are some examples. This type of word map is most appropriate for words that are nouns but can be applied to verbs and other parts of speech through generalizations (Schwartz, 1988).

The three types of IVIM have been explained. In the next section, the researcher describes how IVIM may be implemented in the classroom.

Implementation of Intensive Vocabulary Instructional Methods

Instructional procedures for each type of IVIM are explained in this part. Before implementing IVIM with students, the teacher should first identify the words or concepts that may present difficulty to students. The teacher should look for how the vocabulary is related to the major ideas presented in the text. Nagy (1988) points out that in order to make intensive vocabulary instruction effective, the teacher needs to identify words or concepts that are likely to pose serious difficulties for the students. Upon this decision the teacher would analyze the type of difficulties the word or concept may propose and then select the most appropriate instructional strategy (Nagy, 1988).

A teacher needs to take into consideration the amount of time he has to dedicate to vocabulary instruction. Ideally, a vocabulary teaching program would cover a great many words that would give the students multiple exposures to the words in context and plenty of opportunities to process the words in-depth. However, a teacher's allocated time to vocabulary instruction is limited and the most must be made of that time. In order to teach most efficiently, one must first decide which words are to be taught (Stahl, 1988).

A teacher who reviews a student's content area text may generate a very long list of words that might present difficulty to students. Stahl (1988) offers a four step procedure that can help to narrow the list. He suggests to first decide how important each word is likely to be to the student. One needs to

14

determine if the word is important in understanding the text or if it is repeated over and over. If the answer is no then the word could be dropped. Second, the teacher needs to decide if the meaning of the word can be obtained from the context provided. If there is sufficient context then the word could be dropped from the list. Third, the teacher needs to decide how thoroughly the words will have to be taught. Fourth, the teacher must determine how much the student actually knows and how well it is known. A word could either be totally unknown, partially known, or totally known. This can be determined through checklists or informally through discussion (Stahl, 1988).

Heimlich, Pittelman, Berglund, and French (1991) urge that teachers carefully consider unfamiliar vocabulary that are not a part of a student's schema. The words with which students cannot make a connection to their prior knowledge will present the most difficulty. Vocabulary words that should be considered for intensive instruction are those that could affect a student's ability to comprehend the facts, concepts, and principles of the subject matter (Heimlich, Pittelman, Berglund, and French, 1991).

An effective instructional approach to teaching content vocabulary is that which takes into account the different roles that words play in a text. Teachers have to distinguish between target vocabulary and prerequisite vocabulary. Target vocabulary are words that are introduced and explained in the text. Prerequisite vocabulary are words or concepts that may be needed to understand the text. Teachers must ensure that students understand prerequisite vocabulary before any reading of the content material begins. It is also important that teachers know if students hold any misconceptions about a topic. In other words, teachers must address gaps in background knowledge or misconceptions before any reading begins (Armbruster and Nagy, 1992).

15

A series of four lessons may be used to implement concept of definition. In the first lesson the teacher gives the students explicit information about what they will be doing, why it is important, and how the teacher wishes to proceed. The discussion in the first lesson centers on the ideas of using strategies to gain word meaning, the importance of determining the meaning of words to comprehend the text fully, and the significance of determining whether or not one knows the meaning of a word. After this discussion occurs, the word map is displayed and explained. Next, the teacher and students organize familiar terms as they pertain to the three questions in the word map. In order to maximize support for student learning in the initial instruction, the teacher generates a categorization list of words that the students will use in order to fill in the word map (Schwartz and Raphael, 1985).

The second lesson introduces the concept of locating components of the definition from the context of the sentence in which the word occurred. Schwartz and Raphael (1985) suggest using sentences that have complete context during this phase of instruction. Complete context sentences are those that provide at least one class, three properties, and three examples for each concept. During discussion these types of information are marked for later mapping. After students map the information, oral and written definitions are shared. At this point, students are told that there is nothing magical about having three examples or three properties in a map or definition. Students are encouraged to add additional ideas to their maps and definitions (Schwartz and Raphael, 1985).

The third lesson is very similar to the second, except the context provided for each word is less complete. This means that some of the class, properties, or examples were missing from the context sentences. At this point students

16

may naturally ask to use dictionaries, encyclopedias, and textbooks to obtain the specific type of information that is missing. Discussion during this lesson centers around the use of one's background knowledge and the use of other sources to locate the components of definition (Schwartz and Raphael, 1985).

In the fourth lesson students are taught to write what a word means, including all components to a definition, without mapping the word. Students are told to think of the parts of the word map and use it to gather information in their heads. To assist students' internalization of the strategy, they would be given sentences with partial or full context followed by a definition of a word. The students are asked to evaluate the definitions on their completeness. If a component is incomplete, then the students share what is missing. The fourth lesson leads students to independence of the strategy (Schwartz and Raphael, 1985).

Pittelman, Heimlich, Berglund, and French (1991) describe a seven step procedure for implementing a SFA lesson. The first step involves selecting the category. When students are being introduced to the SFA procedure, it is best to select a category that is concrete and familiar to students. Tools, vehicles, pets, and fruits are appropriate categories for introducing the strategy. As students become familiar with the strategy, more abstract categories may be used such as government, early explorers, and feelings.

The second step involves listing words in the category down the left side of chart paper or a transparency. The list includes two or three words that name concepts or objects related to the category. The words should be familiar to students. If the category vehicles are being used, than words such as bicycle, car, and train may be listed down the left side of the paper. Students could add to the list.

17

The third step involves listing and adding the features of the category in a row across the top of the paper. The teacher should list a few features (traits, properties, or characteristics) shared by some of the words that were listed down the left column. If "vehicles" is the category, some of the traits going across the top of the grid might read: four wheels, used on land, and has a motor. Students should be encouraged to suggest more features that at least one of the words (going down the left column) usually possesses, and it should be added to the row going across the top.

During the fourth step of the lesson students determine feature possession. At this point the teacher guides the students through the completed matrix. The teacher asks the students to decide whether each of the words listed down the left side of the grid typically possesses each of the features listed across the top. Many words may not be truly dichotomous. However, a plus sign should be used if the word usually or substantially possesses the feature, and a minus sign if it does not. If students are not sure of feature possession, a question mark may be entered on the grid. The question mark serves as a placeholder and helps to foster discussion and indicates to students that further study or investigation is necessary.

During the fifth step of the lesson, students are asked to add more words and features that fit the categories and the listed words. As suggestions are offered they should be added to the SFA grid. By expanding the matrix, students' vocabularies increase and categorization skills are developed. The more students are actively involved in the selection of words and features, the more effective the strategy will be. It may be necessary to set a time limit or restrict the number of features or words. This teaches the students to focus on the important features of a topic.

18

The students complete the grid by filling in pluses, minuses, or question marks for the additional features and words that were added during the sixth step. Reference materials may be needed to verify answers.

The seventh step of the lesson involves examining and discussing the grid. Students are directed to look for similarities and differences among the words in the category. Students should be guided in making generalizations about the words in the category as well as discerning what makes each word unique. It should be remembered that the strategy is most effective when the students----not the teacher---- makes these observations.

It should also be noted that other symbols may be used to complete the SFA matrix. Based upon the category the teacher may select such symbols as: yes or no, or (A) almost always, (N) almost never, and (S) sometimes, or a number scale of one to five could be used to show intensity of relationships among words with one representing "not at all" and five representing "extremely" (Pittelman, Heimlich, Berglund, and French, 1991).

A seven step instructional sequence may be used to implement a lesson using semantic mapping. The teacher first chooses a key word(s) that is central to the topic the class will be studying. Next, the word is usually circled and written in the center of a large chart tablet, transparency, or on the chalkboard. During the third step the students are encouraged to brainstorm words that are related to the key word. These words are then listed by categories. During the fourth step students work individually for several minutes. They think of as many words as they can that are related to the key word and list these words by categories. The fifth step involves students sharing their lists orally. Words are then added to the class map in categories. During the sixth step students

19

suggest labels for the categories on the semantic map. The seventh step involves discussing the entries on the semantic map. Students should be encouraged to become aware of the new words, gather new meanings from old words, and draw relationships among the new and old words. Semantic mapping may be used as both a pre and post reading activity. After a selection is read students may add new categories and words (Johnson, Pittelman, and Heimlich, 1986).

Characteristics of effective vocabulary instruction include: relating new words or concepts to students' background knowledge, providing students with multiple encounters with new words or concepts, going beyond isolated definitional and contextual instructional approaches, and encouraging students to make deep mental processes of the new word or concept. Three types of IVIM are semantic mapping, concept of definition, and semantic feature analysis. There is a necessity for the teacher to identify key vocabulary and concepts in the student's text that may present difficulties. The IVIM should be modeled for students with information that is already part of their background knowledge. The IVIM may then be used with the new content material that students are trying to master. Both SM and SFA may be implemented in a single instructional lesson. It is suggested that CD be implemented in four instructional lessons.

Teaching Ohio History to fourth grade students involves conveying concepts and vocabulary words that may be of little or no part of students' schema. The student text has the potential of presenting many unfamiliar words. The teacher must decide how much attention vocabulary instruction should receive, which words should be taught, and when and how they should be taught. Intensive vocabulary instructional methods can serve as a vehicle to

20

meet this challenge.

CHAPTER III

PROCEDURE

Subjects

The subjects in this study were a group of twenty-four fourth graders. Fourteen of the students are boys, and ten of the students are girls. The ethnic background is primarily Caucasian. Twenty-three of the students are Caucasian, and one student is Asian. The students ages range from nine to ten years old.

There are differences in the home living arrangements of the subjects in this study. Thirteen of the subjects live with both natural mother and father. Five subjects live with only their mother. Three subjects live with their mother and stepfather. Of the last three subjects each lives with either the father only, father and stepmother, or aunt and uncle.

Based on this researcher's evaluation of the students' academic performance throughout the school year, eleven students could be described as average, seven students as above average, and six students below average. Two students have an Individualized Education Program (IEP). An IEP is written in conjunction with the classroom teacher and the intervention specialist in order to meet a student's individual needs academically, socially, and physically.

The subjects in this study were in a self-contained classroom. They go to a special teacher for art, music, and physical education.

Setting

School. The school involved in this study is a public elementary building. The grades range from kindergarten to fifth grade. The school has a student population of 610 students. Three hundred ten of the students are boys, and the other 300 are girls. About two percent of the population is minorities.

Approximately 26 percent of the student population is on free or reduced-cost lunch programs.

The school is located in a neighborhood setting. About 50 percent of the students ride a bus to school and the other 50 percent walk. A city community center is only one half mile from the school. The school was a former junior high converted to an elementary building.

The school has a male principal. The school provides such services as a: counselor, learning disabled tutor, speech pathologist, writing to read instructor, nurse, psychologist, chapter I instructor, multi-media learning center coordinator, and two intervention specialists. There is a total of twenty-two classroom teachers who teach kindergarten through fifth grade. There is one art teacher, and there are two physical education and music teachers. Out of 38 total staff members eight are male and thirty are female. There are no minority staff members. The average teaching experience for the staff members teaching kindergarten through fifth grade is 10.8 years.

It should also be noted that the school houses a Headstart Program and an Early Childhood Intervention Center (ECIC). Headstart is a type of preschool. The program members simply rent space in the building. ECIC are for students who have some type of language or physical handicap. ECIC students will eventually attend the schools that are in the district of this study.

Community. The school system is located in the southwestern portion of Ohio in what is known as the Miami Valley region. The community is in a suburban setting. The following can be found throughout the community: golf centers both public and private, a community recreation center, a major manufacturing plant, and a performing arts center. The community was formerly home to a government operations facility.

The public school system is comprised of nine elementary buildings, two middle schools, and one high school. This is the first year that the school has operated under the new middle school concept. There are approximately 8,000 students in the district. The district spends $5,761 per pupil (all funds). The cost per pupil figure was provided by the school district's treasurer. Last school year there was a student mobility rate of 35 percent in the district.

Data Collection

Construction of the Instrument. The researcher administered an achievement pretest and posttest that measured students' knowledge of Ohio history. The test items were based upon five defined knowledge bases. The information for each knowledge base came from the student text Let's Discover Ohio (Akers and Montgomery, 1994).

The knowledge bases were defined as follows: Knowledge Base I, The Mound Builders; Knowledge Base II, Explorers and Fur Traders in the Ohio Region; Knowledge Base III, The French and Indian War; Knowledge Base IV, The Revolutionary War in Ohio; and Knowledge Base V, Schoenbrunn. See Appendix C for a detailed list of objectives for each knowledge base.

Both the pretest and posttest consisted of twenty-five multiple choice questions. Four answer choices were given for each question. There was only one correct answer for each question. A parallel test form was used for the posttest. Seven of the questions were application types, and eighteen were recall types. Fourteen point print was used to create the tests. The larger print was used so that the test might be more readable for the students. Each set of five questions was based on a particular knowledge base. For example, test items one to five were solely based on knowledge base one and test items six to ten were based on knowledge base two and so on.

24

Administration of the Instrument. The Ohio history pretest was administered by the researcher to twenty-four fourth grade students (see Appendix A). The pretest was administered prior to the implementation of the independent variable. The students were instructed to read the questions carefully and to pick the best answer. Students were encouraged to answer all test items even if they did not know an answer. The researcher explained to the students that the purpose of the test was to allow the researcher to obtain a better idea of their knowledge about Ohio's history. In order to relieve test anxiety the students were told that the test would not affect their grades. Upon completion of the test the researcher collected the tests and scored them at a later time. The two students with an IEP had the test read to them by the researcher.

Upon completion of the independent variable the researcher administered a posttest (see Appendix B). A parallel test form was used. Once again students were instructed to read each question carefully and to choose the best answer. If a student had a question on how to pronounce or read a word, the researcher answered his question. However, hints were not given. Students were informed that the posttest would count for a grade. The two students with an IEP had the posttest read to them. Upon completion of the test the researcher collected and scored the tests at a later time.

Design

The researcher used the T1 X T2 design (Isaac and Michael, 1995). T1 represented a pretest that measured knowledge of Ohio history. X represented the independent variable which was the intensive vocabulary instructional methods. T2 referred to the posttest that also measured knowledge of Ohio history.

25

Treatment

The independent variable for this study was the intensive vocabulary instructional methods. These methods included: semantic mapping, concept of a definition, and semantic feature analysis.

The fourth grade students in this study were responsible for knowing the information in each knowledge base. The knowledge bases were covered in a seven week period, with an intermittent period of a week for spring break. A week was the approximate length of time used to cover each knowledge base. There were usually three fifty-minute instructional days to a week or 150 minutes of social studies instruction a week as required by the Ohio State Department of Education for fourth grade students. Since using IVIM is a time-consuming task, this researcher sometimes used four days of instruction in a week's period. The subjects worked toward gaining knowledge of Ohio History during the duration of the treatment. After completion of the treatment and the material in the five knowledge bases, students were then given the posttest.

Prior to beginning coverage of the knowledge bases, students were first taught the strategy concept of definition. The researcher first explained to students what they would be doing, why it was important, and how the researcher would proceed with using the strategy in future lessons. A discussion then ensued on the following three ideas: using strategies to gain word meanings, the importance of knowing what words fully mean in order to understand text, and the importance of determining whether or not one knows the meaning of a word.

After the discussion the word map was displayed on an overhead and explained to the students. (See Appendix D for a copy of the handout that was

26

used with students during initial instruction.) Words with which students had some prior knowledge were used as initial examples to explain the strategy. The initial words used as examples to introduce the strategy were "ice cream" and "automobile." After the word maps were completed for these two words, students then picked a word of their own and completed a word map. Students shared their written definitions for all three introductory word maps. The researcher chose to implement the second and third lessons of CD as described by Schwartz and Raphael (1985) as student and teacher progressed through the readings for each knowledge base. The following vocabulary words were taught through the use of CD as the words were encountered naturally within the context: thirteen colonies, colonists, cremation, shamen, effigy mounds, artifacts, charnel house, Northwest Territory, fort, surveyor, moccasins, and massacre.

After the initial instruction on CD the researcher proceeded with the teaching of each knowledge base through semantic mapping and semantic feature analysis. A semantic map was created for each knowledge base. Semantic feature analysis was used with the historical names of the people and with Knowledge Bases I and V.

A discussion of the completed semantic maps was always held after each lesson. Students also looked back in the text in order to add more or missing information to their map. This was an important part of the lesson as some students discovered that they had information listed incorrectly or missing as they heard their peers speak.

The first knowledge base that was taught dealt with the mound builders. The students had very little if any background knowledge about this area. The researcher had to help the students create the categories for the semantic map.

27

A semantic map was created for the Adena tribe, and a separate semantic map was used for the Hopewell tribe. Since students had very little prior knowledge, the researcher found it necessary to create some of the categories. The following categories were created for each map: burial, time period, homes, and lifestyle. The students added other categories as the material was read. Other categories created by students were: name, mounds, and resources (Appendix E and F). As the material was read, students filled in the information for each category with teacher guidance. After the semantic maps for both the Hopewell and Adena tribes were completed, students then used them to create a Venn diagram. A Venn diagram is a form of semantic feature analysis that is used when only two similar concepts are being compared (Appendix G).

Knowledge base two was about the early explorers and fur traders in the Ohio region. Two more semantic maps were created. One of the semantic maps was for the French explorers and the other was for the British explorers (Appendix H and I). The explorers names were used for categories for each country. The students added a category on how each explorer claimed the land. As the material was read, students filled in the information for each map. A major component to understanding the lesson was knowing what the word "claim" meant. The researcher role-played a scenario that provided students with a concrete experience of the word during the opening activity of the lesson. Students were also assigned a text book assignment at the end of the lesson.

The third knowledge base was about the French and Indian War. The French and Indian War was fought between the French and British in order to establish control over the Ohio lands. Most of the Ohio Indians fought with the French. As part of the introduction, the researcher activated students' prior knowledge pertaining to knowledge base two. The researcher reminded the

subjects of how the French and British were unable to settle their claims to the Ohio lands which resulted in the French and Indian War. The introduction provided a connection between prior knowledge and new information. The researcher used this connection of information as part of the introduction to knowledge base three. Based upon the introduction, a semantic map was used (Appendix J). The following categories were created: countries fighting, French and British Treaty of 1763, winner, and states of the Northwest Territory. The students decided it was important to add why the war was fought. The researcher explained to the students that the category "why the war was fought" could be listed as the "purpose." As the material was read, the information for each category was completed. A text book assignment was also assigned.

The fourth knowledge base covered was the Revolutionary War in Ohio. As part of the introduction to the lesson, the researcher explained to the students the three fighting fronts during the Revolutionary War----the Northwest Territory, the east coast, and some battles on the ocean. A semantic map was used. The following categories were created: George Rogers Clark, winner, countries fighting, George Washington, and as the students and teacher progressed through the material three more categories were added. The categories added were strategy to win Northwest Territory, outcome, and purpose (Appendix K). Students remembered purpose from the previous knowledge base. After the maps were completed, a discussion followed. A text book assignment was also assigned.

The fifth and final knowledge base that was covered was about the atrocity associated with the Christian Delawares. This knowledge base was titled Schoenbrunn. The main title of the semantic map (the words in the center) was massacre of the Christian Delawares. The researcher spent time building

background knowledge on the concept of the word massacre before any content was read. The categories that were created for the semantic map were: locations, which was subdivided into Captive Town, Schoenbrunn, and Gnadenhutten; people responsible; why; and David Zeisberger (Appendix L). After the lesson the students completed a text book assignment.

After the five knowledge bases were covered, the researcher spent approximately the final week and one half teaching semantic feature analysis and the culminating activity. The researcher's first lesson was an example. The researcher used the word "vehicles" as a concept in order to model the strategy for the students. The second lesson of SFA covered the historical names of the people who were mentioned in each knowledge base. The researcher provided an example of one name and one property. The students provided the rest of the information to complete the top and side parts of the SFA grid. The researcher then discussed with the students if each person did or did not have the trait or property. Plus and minus signs were used (Appendix M).

The third lesson of SFA was done in a similar manner. The researcher provided the names of the following locations as one part of the grid: Schoenbrunn, Captive Town, and Gnadenhutten. Students then discussed and listed the characteristics that were common or described each place. The researcher also provided some examples of characteristics in order to make the grid complete. Through class discussion the plus and minus signs were added to each cell (Appendix N).

As a culminating activity, students used the information in all seven semantic maps to write a mini Ohio history book in their own words. They were instructed to create chapter titles and include illustrations.

After the treatment was applied, students then took the posttest.

30

RESULTS

The purpose of chapter four is to discuss the results of this study. The results are shown in Table 1. The table illustrates the number of students (N), the mean scores ($\overline{X}$), and the standard deviations (S). The dependent variable was Ohio history, and the independent variable was IVIM.

The effects of IVIM on knowledge of Ohio history was determined through a t-test analysis. T was equal to 11.2. P was less than .01. The results were significant, therefore the researcher rejects the null hypothesis. For the results of each subject's pre and posttest scores see Appendix O.

TABLE 1

THE MEAN, STANDARD DEVIATION, AND T VALUE SCORES OF STUDENTS WHO WERE TAUGHT OHIO HISTORY THROUGH IVIM

TEST	N	$\overline{x}$	S
PRETEST	24	31.5	8.42
POSTTEST	24	79.3	17.8

$t=11.2, p < .01$

Discussion of the Results

Since the null hypothesis was rejected, it appears that IVIM was effective in helping students gain knowledge about Ohio history. The researcher believes that the null hypothesis was rejected due to several reasons. The researcher feels that IVIM played a significant role in leading to the rejection of the null hypothesis. Using IVIM helped the subjects to gain word knowledge about Ohio history. As far back as the 1920's research studies confirm that word knowledge is a major component to reading comprehension. Davis (1944) performed a

noted study in which he proved word knowledge to be the most important factor in reading comprehension. Davis's finding were reaffirmed in the 1970's by Thorndike (1971) and by Spearritt (1972). In the 1980's, researchers confirmed that vocabulary knowledge is critical for reading comprehension (Barrett and Graves, 1981; Hayes and Tierney, 1982; Johnson, Toms-Bronowski, and Buss 1983; Mezynski, 1983; Nagy and Herman, 1987).

The researcher believes that the strategies of semantic mapping and semantic feature analysis were more effective than traditional methods of vocabulary instruction, such as contextual and definitional approaches, in leading students to acquiring knowledge about Ohio's history. Toms-Bronowski (1983) found that fourth through sixth grade students who were taught vocabulary through semantic mapping and semantic feature analysis significantly outperformed students who learned the words through contextual analysis.

The researcher feels that although the subjects had a week off for spring break, the data in Table 1 indicates that IVIM fosters retention of vocabulary words and concepts. In a follow up to Toms-Bronowski's study (1983), an analysis of a test of vocabulary retention supports the original finding (Johnson, Toms-Bronowski, and Pittelman, 1982).

The factors which affect internal validity may also have contributed to the rejection of the null hypothesis. Since students had very little background knowledge of the subject matter to begin with, any type of teaching strategy may have resulted in the subjects gaining knowledge of Ohio history. The researcher has no exact assurance that the treatment was the major factor in leading to the rejection of the null hypothesis.

The higher mean score on the posttest may be contributed to the

32

research design in its self. By taking the pretest, the subjects became sensitized to the subject matter. They might have recognized some of the same test questions on the posttest. The subjects also knew that they were going to be tested over the five knowledge bases. The higher mean posttest score may be a reflection of students' study habits. There was also no control group to compare the findings.

It is also possible that maturation had an effect on the subjects acquiring knowledge about Ohio history. The duration of the treatment was for eight weeks, counting the intermittent week for spring break. During this period of time, the subjects may have matured mentally, physically, or changed psychologically.

By evaluating the culminating activity, the researcher noted that the subjects, through the written word, competently demonstrated a thorough understanding of the five knowledge bases. This activity was a key component in synthesizing the subjects' knowledge about Ohio history. The researcher observed that the subjects approached the activity with interest and enthusiasm.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Students in the intermediate grades are expected to read and comprehend vast amounts of information as portrayed through expository texts. The students' comprehension of expository texts will largely depend on their understanding of the vocabulary used.

Students who study the history of Ohio often use an expository text as a resource to learn the concepts. It was the researcher's aim to select an effective teaching strategy to meet the challenge of teaching fourth grade students Ohio history through the use of an expository text. The researcher decided vocabulary instruction would play an integral role in the teaching of Ohio history. The researcher identified limitations to such traditional vocabulary instructional methods as contextual and definitional approaches. Through reviewing the related literature, the researcher elected to use intensive vocabulary instructional methods as an alternative approach to traditional vocabulary instruction.

In Chapter One the researcher defines intensive vocabulary instructional methods and the three types that were used in this study. The researcher also defines other pertinent terms to this study. In order to carry out this study, the researcher recognized certain assumptions and limitations.

In Chapter One the researcher formulated a problem statement. The problem statement read; The purpose of this study was to evaluate the effectiveness of using intensive vocabulary instructional methods with fourth graders on their knowledge of Ohio history.

The null hypothesis was presented in Chapter One. It states: There will be no significant difference in the mean pre and posttest knowledge of Ohio

history scores of fourth grade students who have been taught Ohio history though the use of intensive vocabulary instructional methods.

In Chapter Three, Procedure, the researcher described the subjects and setting. There were twenty-four fourth grade subjects. The public school is in a suburban setting. The community in which this study took place is located in the southwest portion of Ohio.

The researcher created and administered both a pre and posttest. Each test consisted of twenty-five multiple choice questions. The test items were based on the content in the student's social studies text. A parallel test form was used for the posttest. The researcher scored the tests.

The researcher created five knowledge bases of information that students were responsible for knowing. The treatment lasted for a duration of seven weeks. The pretest was given prior to any treatment.

The subjects were first taught the strategy of concept of definition. As certain vocabulary words were encountered in subsequent lessons, these words were defined through the use of the strategy of concept of definition.

A semantic map was created and completed for each knowledge base. After each knowledge base was taught the researcher spent approximately a week and one half teaching semantic feature analysis. Semantic feature analysis was used with historical names of people and with Knowledge Bases I and IV. As a culminating activity, students used the information in all seven semantic maps to write a mini Ohio history book in their own words. After the treatment was applied, students took the posttest.

The students' scores were significantly higher on the posttest. Only one student scored lower on the posttest. The mean score on the pretest was 31.5 percent and the mean score on the posttest was 79.3 percent. The t test for

dependent samples at a .05 level of significance was used. The null hypothesis was rejected.

Conclusions

Conclusion 1. The researcher concluded that the majority of subjects increased their knowledge significantly about Ohio history.   Intensive vocabulary instructional methods played a pertinent role in this acquisition of knowledge. Only one student scored lower on the posttest and another student only showed slight improvement on the posttest. This conclusion was based on the analysis of the test scores.

Conclusion 2. The researcher recognizes that the majority of the content was not part of the subjects' prior knowledge. Any type of teaching strategy may have resulted in the subjects scoring higher on the posttest. The pre and posttest comparison may not have been a true indicator of the knowledge acquired due to intensive vocabulary instruction.

Conclusion 3. Intensive vocabulary instructional methods proved to be an effective teaching strategy with students who were described as below average.   The implication is that students of lower ability can benefit from intensive vocabulary instruction.

Conclusion 4.   Intensive vocabulary instruction has the potential to maintain student interest more effectively. Intensive instruction varies from the same traditional contextual and definitional approaches. This conclusion was based on researcher observation of the subjects during the treatment.

Conclusion 5. The researcher concluded that IVIM fosters retention of vocabulary words and concepts. This conclusion was based on the observation that the subjects had a week off for spring break. Sometimes knowledge is lost during lapses of instruction. However, the majority of the subjects scored

36

significantly higher on the posttest indicting retention of Ohio history knowledge.

Recommendations

The researcher suggests the following recommendations for using intensive vocabulary instructional methods. It is essential that one realizes the important role that both vocabulary and prior knowledge play in reading comprehension. Intensive vocabulary instruction takes into account the important role of prior knowledge. A teacher should identify vocabulary words in a lesson or chapter that may be roadblocks to comprehension. These words would receive intensive instruction. The teacher must decide the intensive vocabulary strategy or strategies to be used to teach the vocabulary.

Semantic mapping is useful to students when a group of words are related semantically. It is an excellent strategy to use to activate and build upon background knowledge. Semantic mapping should be used before, during, and after reading. A completed semantic map may be used as a study guide or as a prewriting guide. Semantic mapping may be used if one wishes to show the relationships among words.

If one's purpose is to show students what components comprise a definition, concept of definition should be used. This strategy enables students to write definitions effectively in their own words. The strategy is designed to lead students to acquire definition writing independently. Concept of definition is also useful when vocabulary words may not be semantically related. It allows one to examine a vocabulary word in a lesson in isolation.

Semantic feature analysis is useful in helping students distinguish between the attributes of words that are semantically related. The researcher suggests using SFA after students have had at least some exposure to the words that are semantically related.

37

Intensive vocabulary instruction is not confined to the social studies area. Intensive vocabulary instruction may be used across the curriculum.

Traditional vocabulary methods such as contextual and definitional approaches to teaching vocabulary should not be abandoned. One should keep in mind that when contextual and definitional strategies are used together, rather in isolation, this combination is more effective.

The researcher in this study used three types of intensive vocabulary methods. There are other types of vocabulary methods that could be classified as intensive and should be used when appropriate. One should realize that vocabulary instruction is just one component to reading comprehension.

Intensive vocabulary instruction is an effective teaching strategy that enables students to process words deeply and see relationships among words.

OHIO HISTORY
PRETEST

*Name:*_____

*Date:*_____

Directions: Read each question carefully. Circle the letter of the best answer.

1. Which Indian tribe was the first to live in the Ohio region?

    a. Hopewell   b. Miami

    c. Adena   d. Shawnee

2. Archeologist Archie discovered an Indian mound. After thorough examination of the mound a team of archeologists determined that the mound was in the shape of a bird. Which term is used to describe this type of mound?

    a. An effigy mound   b. An animal mound

    c. A burial mound   d. Cardinal Mound

3. Which of the following statements is true about the Adena and Hopewell tribes?

    a. Only the Adena tribe used cremation as a burial practice.

    b. The Adena and Hopewell tribes were both named after the farms on which their remains were found.

    c. The Adena's built most of the 10,000 mounds in Ohio.

    d. Both the Adena and Hopewell tribes used mica, quartz, shells, copper, pearls, obsidian, and shark's teeth to make things.

4. What is the name given to the place where the Hopewell tribe cremated their dead?

        a. charcoal house   b. burial tomb

        c. long house   d. charnel house

5. Archeologist Archie was digging into a part of an Indian mound. While he was digging he found the following artifacts: copper chest plates, a necklace that had shark's teeth, knives made from obsidian, and decorations made from mica. Which Indian tribe most likely made these artifacts?

        a. Adena   b. Hopewell

        c. Miami   d. Ottawa

6. What was the name given to the land that the British explorers claimed along the Atlantic Ocean?

        a. United Kingdom   b. United States of America

        c. thirteen colonies   d. Northwest Territory

7. Which of the following people was not an early explorer in the Ohio region?

        a. David Zeisberger   b. Christopher Gist

        c. Robert La Salle   d. Pierre Celeron

8. Which French explorer stood in his boat and said, "All land on both sides of the Ohio River now belongs to France." ?

        a. David Zeisberger   b. George Croghan

        c. George Rogers Clark   d. Robert La Salle

9. What was the name given to the British people who settled along the eastern coast?

    a. colonists   b. loyalists

    c. Native Americans   d. citizens

10. Which of the following would George Croghan most likely have given to the Indians as a gift?

    a. A French flag   b. A British flag

    c. Lead plates to bury d. And American flag

11. Which two countries fought against each other in the French and Indian War?

    a. France and Indian Nation   b. Canada and England

    c. France and United States   d. France and Great Britain

12. Who won the French and Indian War?

    a. France   b. Great Britain

    c. Indian Nation   d. United States

13. What was the name given to the land that was created as a result of the French and Indian War? This land extended east of the Mississippi River and north of the Ohio River to the Great Lakes.

    a. Northwest Territory   b. Northeast Territory

    c. Ohio Valley   d. Western Country

14. Which of the following was not a result of the French and British Treat of 1763?

        a. The British were given all of Canada
        b. The French were given the Ohio lands.
        c. The Northwest Territory was created.
        d. The French were forced to leave the Ohio Region.

15. Which state was not carved from the Northwest Territory?

        a. Ohio   b. Pennsylvania

        c. Wisconsin   d. Michigan

16. Which two countries fought against each other in the American Revolutionary War?

        a. Great Britain and France   b. Canada and Mexico

        c. America and Great Britain   d. Indian Nation and America

17. I was the leader of the colonial army for six years during the American Revolutionary War. Who am I?

        a. Robert La Salle   b. David Zeisberger

        c. George Croghan   d. George Washington

18. Who won the American Revolutionary War?

        a. Great Britain   b. Indian Nation

        c. America   d. France

19. I was the leader who won the Northwest Territory by raising a large army of frontiersmen and by capturing the British forts by surprise. Who am I?

        a. David Zeisberger   b. Mad Anthony Wayne

        c. George Rogers Clark   d. Daniel Boone

20. What is the name given to a person who measurers land?

      a. archeologist   b. shamen

      c. explorer   d. surveyor

21. Who was the missionary that preached to the Delaware Indians about God?

      a. David Zeisberger   b. George Washington

      c. George Rogers Clark   d. Pierre Celeron

22. Which of the following describes "Captive Town"?

    a. It was the place where the Christan Delawares were murdered.

    b. It was the place where the British soldiers took the Christan Delawares so they couldn't help the Americans.

    c. Captive Town was the Christian Delawares' home.

    d. It was the place where the Americans were held as prisoners by the British.

23. Which of the following statements best describes what happened Gnadenhutten?

    a. It was the place where the British soldiers held the Christian Delawares captive.

    b. It was the place where the Christian Delawares learned about God.

    c. It was the place where the Treaty of 1772 was signed between the British and the Americans.

    d. It was the place where the Christian Delawares were burtally murdered.

24. What was the name of the town where the Christian Delawares built their settlement?

  a. Captive Town   b. Schoenbrunn

  c. Dayton   d. Gnadenhutten

25. Which of the following groups was responsible for the massacre of the Christian Delawares?

  a. American Soldiers   b. British Soldiers

  c. French Soldiers   d. Hopewell Soldiers

OHIO HISTORY
POSTTEST

*Name:*_____

*Date:*_____

Directions: Read each question carefully. Circle the letter of the best answer.

1. Who was the missionary that preached to the Delaware Indians about God?

    a. David Zeisberger   b. George Washington

    c. George Rogers Clark   d. Pierre Celeron

2. Which of the following groups was responsible for the massacre of the Christian Delawares?

    a. American Soldiers   b. British Soldiers

    c. French Soldiers   d. Hopewell Soldiers

3. What was the name of the town where the Christian Delawares built their settlement?

    a. Captive Town   b. Schoenbrunn

    c. Dayton   d. Gnadenhutten

4. What is the name given to a person who measurers land?

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5. Which of the following describes "Captive Town"?

   a. It was the place where the Christian Delawares were murdered.

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   c. Captive Town was the Christian Delawares' home.

   d. It was the place where the Americans were held as prisoners by the British.

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   b. It was the place where the Christian Delawares learned about God.

   c. It was the place where the Treaty of 1772 was signed between the British and the Americans.

   d. It was the place where the Christian Delawares were brutally murdered.

7. Who won the American Revolutionary War?

   a. Great Britain   b. Indian Nation

   c. America   d. France

8. I was the leader of the colonial army for six years during the American Revolutionary War. Who am I?

   a. Robert La Salle   b. David Zeisberger

   c. George Croghan   d. George Washington

9. I was the leader who won the Northwest Territory by raising a large army of frontiersmen and by capturing the British forts by surprise. Who am I?

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    c. Indian Nation   d. United States

12. What was the name given to the land that was created as a result of the French and Indian War? This land extended east of the Mississippi River and north of the Ohio River to the Great Lakes.

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    d. The French were forced to leave the Ohio Region.

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17. What was the name given to the land that the British explorers claimed along the Atlantic Ocean?

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    c. thirteen colonies   d. Northwest Territory

18. Which French explorer stood in his boat and said, "All land on both sides of the Ohio River now belongs to France." ?

    a. David Zeisberger   b. George Croghan

    c. George Rogers Clark   d. Robert La Salle

19. Which of the following people was not an early explorer in the Ohio region?

    a. David Zeisberger   b. Christopher Gist

    c. Robert La Salle   d. Pierre Celeron

20. What was the name given to the British people who settled along the eastern coast?

    a. colonists   b. loyalists

    c. Native Americans   d. citizens

21. Which Indian tribe was the first to live in the Ohio region?

        a. Hopewell   b. Miami

        c. Adena   d. Shawnee

22. Archeologist Archie discovered an Indian mound. After thorough examination of the mound a team of archeologists determined that the mound was in the shape of a bird. Which term is used to describe this type of mound?

        a. An effigy mound   b. An animal mound

        c. A burial mound   d. Cardinal Mound

23. Which of the following statements is true about the Adena and Hopewell tribes?

    a. Only the Adena tribe used cremation as a burial practice.

    b. The Adena and Hopewell tribes were both named after the farms on which their remains were found.

    c. The Adena's built most of the 10,000 mounds in Ohio.

    d. Both the Adena and Hopewell tribes used mica, quartz, shells, copper, pearls, obsidian, and shark's teeth to make things.

24. What is the name given to the place where the Hopewell tribe cremated their dead?

        a. charcoal house   b. burial tomb

        c. long house   d. charnel house

25. Archeologist Archie was digging into a part of an Indian mound. While he was digging he found the following artifacts: copper chest plates, a necklace that had shark's teeth, knives made from obsidian, and decorations made from mica. Which Indian tribe most likely made these artifacts?

    a. Adena   b. Hopewell   c. Miami   d. Ottawa

KNOWLEDGE BASE I

THE MOUND BUILDERS

1. The student will be able to define and identify in a problem situation the following vocabulary words: cremation, shamen, effigy mounds, artifacts, and charnel house.

2. The student will recognize similarities and differences between the Hopewell and Adena Indian tribes in the following areas: burial methods, time periods, and lifestyles.

KNOWLEDGE BASE II

EXPLORERS AND FUR TRADERS IN THE OHIO REGION

1. The student will be able to identify the following people as explorers: Robert La Salle, George Croghan, Pierre Celeron, and Christopher Gist.

2. The student will also be able to state the country each explorer represented and describe their attempts to claim the Ohio lands in a problem situation.

3. The student will define thirteen colonies and colonists.

KNOWLEDGE BASE III

THE FRENCH AND INDIAN WAR

1. The student will state which two countries fought in this war.

2. The student will recall the country which won this war.

3. The student will recognize the outcomes of the war as stated in the French and British Treaty of 1763.

4. The student will list the states that comprised the Northwest Territory.

KNOWLEDGE BASE IV

THE REVOLUTIONARY WAR IN OHIO

1. The student will identify the two sides that fought in this war.

2. The student will identify George Washington as the leader of the Colonial Army.

3. The student will recognize George Rogers Clark as the leader who won the Northwest Territory during the American Revolutionary War.

4. The student will state the winner and the significance of the Revolutionary War.

5. The student will define the following vocabulary words: surrendered, moccasins, scalp, fort, and surveyor.

KNOWLEDGE BASE V

SCHOENBRUNN

1. The student will identify who David Zeisberger was.

2. The student will be able to identify the significance of each of the following locations: Captive Town, Schoenbrunn, and Gnadenhutten.

3. The student will identify the group of people responsible for the massacre of the Christian Indians.

4. The student will define massacre.
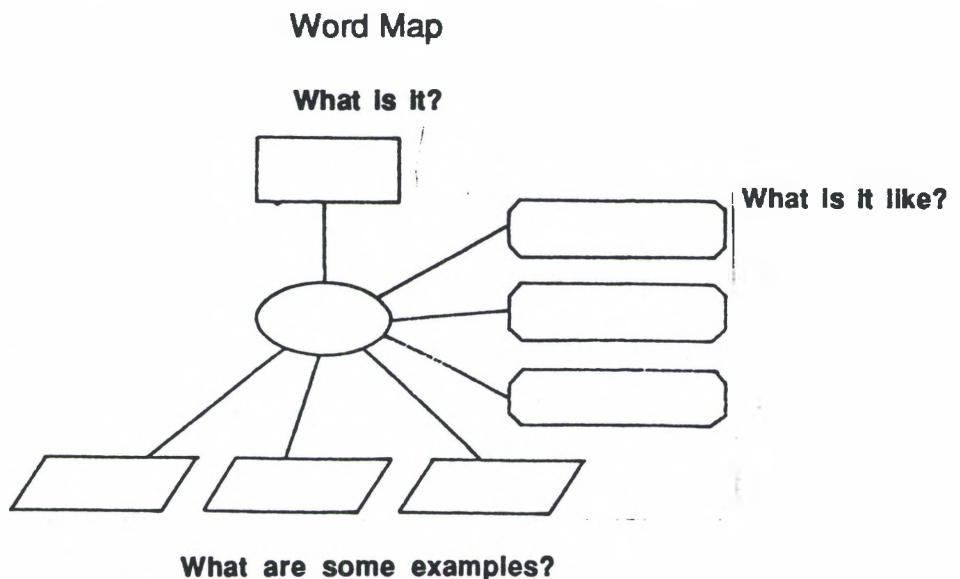
Concept of Definition

Have you ever been asked to write a definition "in your own words"? This could be a difficult task if you do not know the parts that make up a definition.

You will be learning a strategy that will help you gain meaning of both familiar and unfamiliar words. The strategy will help you to write definitions of words in detail. After you learn the strategy, you will find it much more easier to write definitions "in your own words". You will also more likely remember the meaning of the word. The strategy is called *Concept of Definition.*
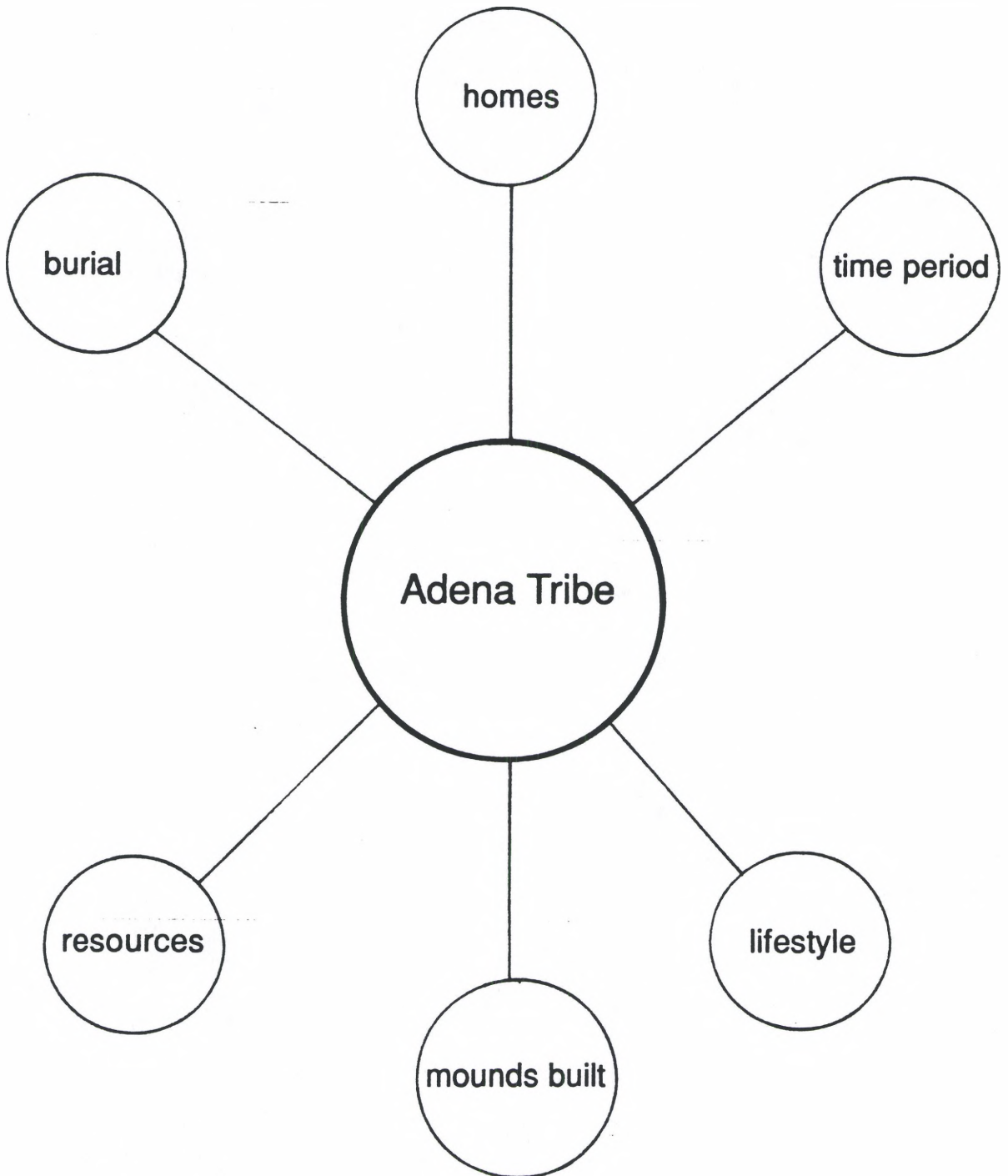
Look at the word map below. The word map illustrates the three parts of a definition. The three parts are: **What is it?   What is it like?   and What are some examples?**

We will use the following words to complete the word map.

Apple   *has a keyboard*   *a machine*

IBM-PC   *can play games on it*   *has a screen*

has memory Macintosh   *has a keyboard*

Word Map

What is it?

What is it like?

What are some examples?

52
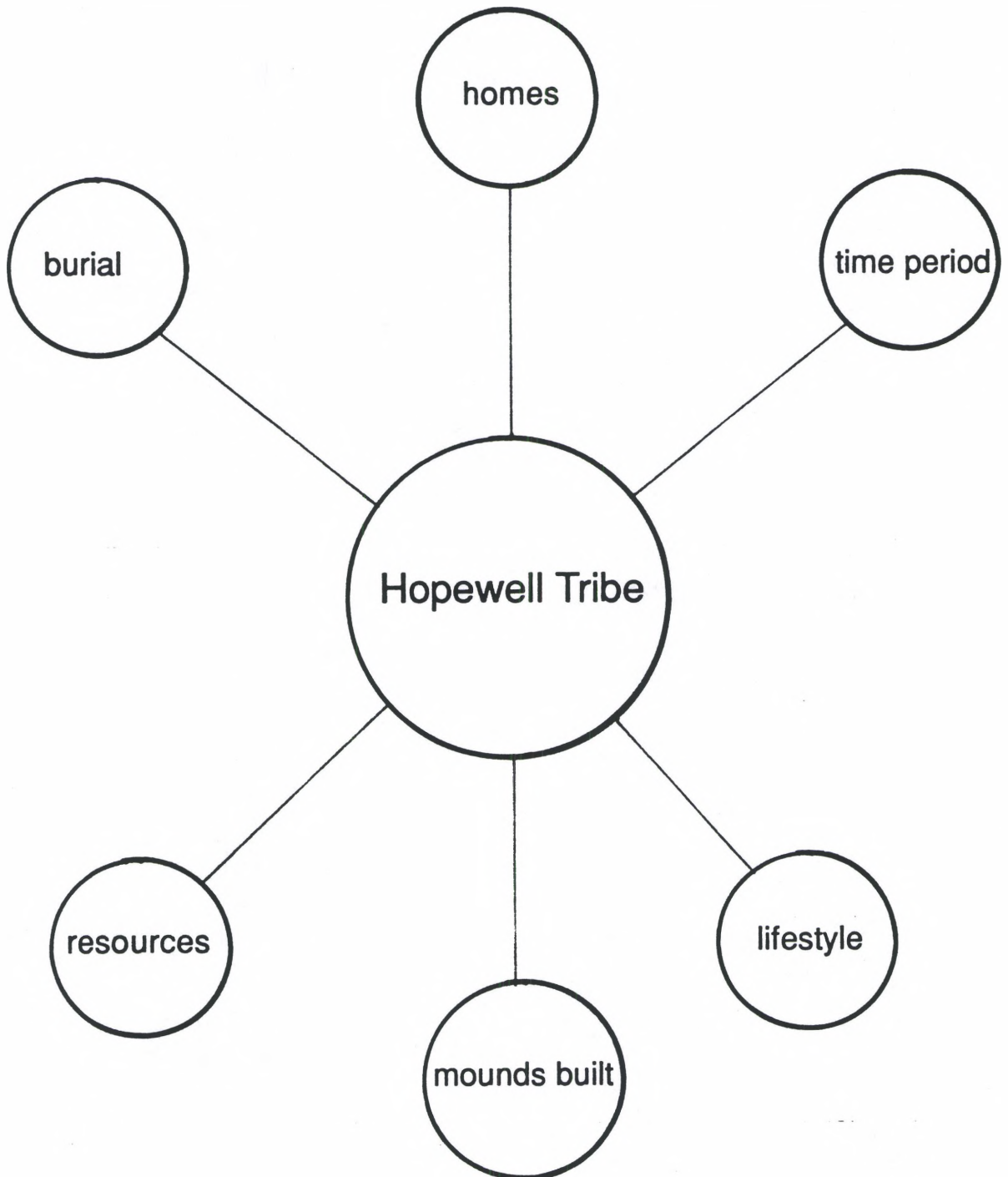
Appendix G

A VENN DIAGRAM

ADENA
TRIBE

HOPEWELL
TRIBE

55

Christopher
Gist

British
Explorers
(Great Britian)

George
Croghan

countries
fighting

the
winner

French and
British Treaty of
1763

French and Indian
War

Northwest Territory
(states carved from)

purpose

countries
fighting

winner

purpose

George Rogers
Clark

Revolutionary War
In Ohio

George
Washington

outcome

strategy to win
NW Territory

locations

Captive Town

Schoenbrunn

Gnadenhutten

Massacre of the Christian Delawares

why

people responsible

David Zeisberger

	Is French	Is British	Military Leader	Gave 'gifts to Indians	An early explorer	A Surveyor	A missionary	Buried Lead Plates								
Christopher Gist																
George Washington																
George La Salle																
Robert Celeron																
Pierre Croghan																
George Zeisberger																
David R. Clark																
George																

Column headers (reading vertically):
- The Delaware Settlement
- Located by a river
- Delawares held captive by British
- Crude Living
- where Zeisberger preached
- British soldiers involved
- American soldiers involved
- where a massacre occurred

Row labels:
- Schoenbrunn
- Captive Town
- Gnadenhutten

Appendix O

Ohio History Test Scores

Subject	Pretest Scores	Posttest Scores
1	24%	100%
2	16%	100%
3*	44%	32%
4	24%	68%
5	36%	80%
6	32%	68%
7	28%	76%
8	40%	96%
9	36%	84%
10	48%	100%
11	40%	64%
12	32%	72%
13	28%	44%
14	24%	60%
15	32%	88%
16	24%	84%
17	24%	100%
18*	44%	72%
19	20%	92%
20	28%	84%
21	28%	88%
22	44%	92%
23	24%	64%
24	36%	100%

(* indicates a student with an IEP)

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