A SEMANTIC FIELD APPROACH TO PASSIVE VOCABULARY ACQUISITION FOR ADVANCED SECOND LANGUAGE LEARNERS

THESIS

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

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By

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Current ESL instructors and theorists agree that university students of ESL have a need for a large passive vocabulary. This research was undertaken to determine the effectiveness of a semantic field approach to passive vocabulary acquisition in comparison to a traditional approach. A quantitative analysis of the short-term and long-range results of each approach is presented. Future research and teaching implications are discussed. The outcome of the experimentation lends tentative support to a semantic field approach.
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CHAPTER I

INTRODUCTION

For a foreign student studying in an environment where English is the medium of instruction, a command of academic vocabulary is essential. However, as Twaddell (1973: p. 439) notes, "learning an adequate vocabulary is a phase of foreign language acquisition that has been, and will be one of the major problems of any F.L. program." This problem is one that needs to be addressed by ESL researchers and teachers. Thus, English language instructors can no longer ignore a problem that Richards (1976: p. 437) points out: "Vocabulary has for some time been the one area of the ESL syllabus where the link between approach, method, and technique has been neglected." Methods of vocabulary instruction must be developed that will effectively meet the reading needs of the foreign student prior to his entrance into a college or university.

This issue is of particular concern to educational institutions in the United States, where there are now 339,000 foreign students attending colleges and universities, an increase of 119 per cent since 1974 (Chronicle of Higher Education, 1984: p. 1).
This study will describe a quantitative analysis of the effectiveness of an approach to passive vocabulary acquisition for the advanced ESL student.

Statement of the Problem

The problem of this study was to determine the effectiveness of two methods of presentation on the acquisition of passive vocabulary by advanced ESL students undergoing intensive English language instruction.

Purposes of the Study

The first purpose of this study was to ascertain the short-term gains in passive vocabulary of two groups of ESL students presented material by two different methods: a traditional approach and a semantic field approach.

The second purpose was to determine whether these gains were maintained after a lapse time of four weeks.

The third purpose was to determine whether learning occurred over the material that had been presented to both groups but not formally tested.

The fourth purpose was to determine whether controlled exposure to passive vocabulary (the semantic field approach) was more effective than a four-month period of uncontrolled exposure in an academic environment.
Definition of Terms

**Control group**--Control group as used in this study refers to the group which was presented material in a traditional manner.

**Traditional**--Traditional as used in this study refers to the use of alphabetized word lists and accompanying exercises that characterizes the vocabulary instruction most used by ESL instructors.

**Experimental group**--Experimental group as used in this study refers to the group which was presented material in a semantic field approach.

**Semantic field**--Semantic field as used in this study is defined as a categorized domain of conceptually similar lexical items.

**Keyword group**--Keyword group as used in this study refers to the related word groups used in the semantic field approach.

**Keyword**--Keyword as used in this study refers to the most commonly recognized word or phrase in the related word groups used in the semantic field approach.

**Passive vocabulary**--Passive vocabulary as used in this study refers to vocabulary learned for recognition, not for active productive use.
Hypotheses

The hypotheses formulated and tested for this study were as follows.

1. There is no significant difference in short-term gain of passive vocabulary between a semantic field approach and a traditional approach.

2. There is no significant difference in long-term gain of passive vocabulary between a semantic field approach and a traditional approach over a period of four weeks.

3. There is no significant difference between long-term passive vocabulary retention through acquisition through semantic field exposure and unstructured random exposure to general academic English.

Significance of the Study

Since little research has been conducted in the field of active or passive vocabulary acquisition, there is an urgent need for more investigation and research in this field. Teachers and students have voiced their concerns over inadequate vocabulary training for college reading skills.

When advanced ESL students at UCLA were polled regarding what they considered to be their biggest problem in academic reading, 68 per cent of them indicated that an
inadequate vocabulary was the main single contributor to problems in academic reading (Gorman, 1973: pp. 155-156).

The area of passive vocabulary needs new approaches, ones that will be easier to teach, ones that will take less time to acquire, and ones that will be more valuable to the student in his academic studies.

It is hoped that this study will shed some light on passive vocabulary acquisition and will provide quantitative data that will facilitate further research into this relatively untouched, but critical, field of study.

Limitations

This study was limited to four classes of advanced ESL students attending Level 5 at the Intensive English Language Institute at North Texas State University during the fall semester of 1983.

The vocabulary used in this study was limited to vocabulary found in college academic texts.

This study was limited to studying passive vocabulary gain.

Basic Assumptions

The basic assumptions of this study were as follows.

1. The participants of this study, being unaware that they were involved in an experiment, would perform with equal diligence in response to both presentations.
2. The instructors involved in this study would implement each method of instruction in an impartial manner.

3. The two methods could be used independently.

Organization of the Remainder of the Study

The remainder of the study is organized as follows. Chapter II contains a review of the theoretical literature and related research; Chapter III describes the population, the presentation of the methods, the procedure, the pilot study, the development of the design, and the instruments used in the study; Chapter IV contains the presentation and analysis of the data; and Chapter V contains the summary, findings, conclusions, and recommendations.
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CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

The teaching of vocabulary to second language learners has long been an area of concern to language instructors. How to equip the language learners with adequate vocabulary skills to communicate competently and to read successfully is a question that has yet to be answered. As Twaddell (1973: p. 439), so aptly states, "Vocabulary control is one very important component of language mastery about which there is more agreement in discouragement than in any constructive proposals for effective techniques."

Although various language teaching approaches have been used over the past three decades or more, none of these approaches has proven to be very effective in dealing with passive vocabulary acquisition.

Audio-Lingual Approach

With the advent of the Audio-Lingual Method in the 1940s, the importance of vocabulary was subordinated to a foundational knowledge of structure, by which vocabulary, when learned later, can be fitted into discourse (Rivers, 1964: p. 17). The hierarchy of skills to be learned was the following: (1) listening, (2) speaking, (3) reading,
and (4) writing. Although vocabulary was downplayed, the proponents of this method were confident that proficient reading skills would result. Since vocabulary is an integral component of the reading process, an overview of the results of these studies will be presented.

Studies done in the late 1940s through the 1960s appear to refute the claims of the audio-linguists. Research done by Agar and Dunkel (1948) applying audio-lingual methods to the teaching of foreign languages indicated that the aural-oral method did not improve reading ability. In 1950, Hamilton and Haden reported on a three-year study that focused on three specific language areas: oral versus reading skill in the classroom, grammar instruction, and pronunciation skills. No conclusive results in any of these areas were obtained (Agar and Dunkel, 1948: pp. 85-102). Scherer and Wertheimer (1964) compared the results of audio-lingual and traditional teaching procedures. In this study, the experimenters concluded that the students in the audio-lingual group were significantly superior in aural-oral skills while those in the traditional group scored significantly higher in reading and writing. The most comprehensive study undertaken to evaluate the audio-lingual method was the Pennsylvania Project (1969), conducted at the high school level with French and German students from various high schools throughout the state.
It was shown that, after one year, the traditional students performed better in all skills: aural, oral, reading, and writing. A follow-up test given a year later showed that there was no significant difference in any skill area except reading, which showed the traditional group scoring better.

Growing realization that the audio-lingual method was ineffective in some areas of language learning, notably reading and writing skills, and the appearance of Chomsky's transformational grammar theory in the late 1950s caused linguists and language instructors to start concentrating on vocabulary again.

Cognitive Approach

When Chomsky published his first book on transformational grammar in 1957, he challenged the very foundations of structural grammar and linguistic thought. However, it was not until 1965, when he published *Aspects of the Theory of Syntax*, that his work really affected second language teaching. The cognitive code theory of language acquisition, which sprang from Chomsky's work and research done by cognitive psychologists (e.g., Ausebel, 1969, etc.), was intended for first language processing, not second language teaching; however, dissatisfaction with the audio-lingual method led linguists and ESL instructors to examine the cognitive theory of learning as a possible alternate for
the audio-lingual method. The cognitive theory of learning as defined by Chastain (1976: p. 143) is "the perception, acquisition, organization, and storage of knowledge in such a way that it becomes an active part of the individual's cognitive structure." Therefore, cognitive materials were presented in a contextualized manner that required the student to use his intuitive and inductive reasoning power. Vocabulary items and concepts were incorporated that would be relevant to the student's life and interests, thus making it easier for the student to assimilate the material cognitively.

Little research was conducted on vocabulary acquisition during the 1960s; however, there were a few notable studies undertaken that analyzed reading proficiency along with aural-oral and writing skills. Since reading skills can be directly related to knowledge of vocabulary, the following research is relevant to this study.

From 1966 to 1969, Mueller (1971) compared the achievement of students studying audio-lingual materials and cognitive materials. He found that the achievement scores in listening, reading, and writing were much higher for students working with cognitive materials. Chastain and Woerdehoff (1968) conducted an experiment with first-year Spanish students at a college. They compared the effectiveness of the material presented in the audio-lingual approach to that of the cognitive code method. The results
showed that the audio-lingual method produced significantly higher scores in speaking skills but that the cognitive method yielded significantly higher scores in reading; achievement scores in listening favored cognitive learners, but the scores were not significant (Chastain and Wendehoff, 1968: pp. 263-279). Even though vocabulary acquisition per se was not tested, the differences in reading could be directly attributable to the role of vocabulary instruction inherent in each method.

Developments in Vocabulary Acquisition

The impact of theoretical changes since the 1940s has done a great deal to cause linguists and language instructors to reevaluate past and present pedagogical approaches and to seek new ones which might better fulfill the needs of second language instruction.

The research conducted from the 1950s through the 1970s focused mainly on identifying areas of acquisition and problems inherent in these areas. For example, Lado (1955) identified and investigated four main areas in vocabulary acquisition: forms, meanings, distribution, and classification across languages. In addition, Prator (1963), Vanderwerf (1969), and Hagerty and Bowen (1974) did work in the area of contrastive analysis of vocabulary. This research indicated that an analysis of vocabularies of source and target languages would be
useful to ESL teachers. However, none of this research was incorporated into a viable teaching approach.

Politzer and Politzer (1972), Twaddell (1972); and Henning (1973) agreed that vocabulary acquisition was indeed an area that needed to be investigated. However, identifying the problem was not sufficient; a solid approach to the teaching of vocabulary was needed.

Most investigators agree that one's approach to vocabulary instruction must be based upon the active or passive needs of the student and that vocabulary practice needs to be contextualized for meaningful retention. Finnochiaro (1964) developed exercises for active acquisition of vocabulary that included contextual practice with numerous examples. Celcia-Murcia (1979) proposed different techniques for teaching active and passive vocabulary. For teaching passive vocabulary she advocated good dictionary skills, word stem and word form knowledge, and extensive reading.

One recent approach that has come under close scrutiny is "Suggestopedia," developed by Lozanov (1977). Lozanov has claimed that a student is able to learn vocabulary at a rate of five to fifty times faster than that of the average classroom. Ostrander and Schroeder (1977), authors of the best-seller Superlearning, presented a model closely patterned after Lozanov's that purported to be able to
produce the same results. This approach was studied experimentally by Wagner and Tilney (1983), and their results showed that the subjects taught by the traditional approach learned significantly more vocabulary than those taught with "superlearning" techniques.

However, looking at vocabulary acquisition theories in a vacuum is inadequate. To understand the significance of learning passive vocabulary, one must look at the role it plays in the reading process.

Vocabulary in the Reading Comprehension Process

There is evidence that, "as students become more proficient in a language, problems caused specifically by syntactical variation become less significant" (Gorman, 1979: pp. 155-156). Hatch (1979: p. 129) maintains that "for many university foreign students, reading skills are perhaps more important for academic success than speaking ability." An inadequate vocabulary can hinder a second language learner considerably in his/her ability to comprehend academic texts. Second language learners can acquire an active vocabulary relatively quickly and easily. Frequency counts indicate that about 2,000 words are adequate for everyday conversational situations (Celcia-Murcia and Rosenweig, 1979). In contrast, it is estimated that the average native speaker is able to recognize
about 60,000 lexical units (over 150,000 words) (Miller, 1951). If a foreign student were able to acquire forty lexical units a day, seven days a week, 365 days a year, he/she would still need over four years to achieve native speaker status.

As Chastain (1976) and others have pointed out, it is a passive knowledge of vocabulary that is needed for reading. Many reading specialists have examined this area. The study of cognates across languages, along with regular reading practice, is a strategy advocated by Norris (1970), Yorkey (1970), Chastain (1970), and others. Moreover, most experts agree that vocabulary should be learned contextually. Nonetheless, most texts used today utilize a word list approach, incorporating words which have little, if any, inherent relevance for incorporation into units of study. They also attempt to teach active and passive skills simultaneously. One current ESL vocabulary text that uses contextualized units is *Advanced English Vocabulary Workbook* (Barnard, 1972). However, this text intersperses active and passive tasks in each unit.

In spite of the advice of experts in the field and the proliferation of ESL vocabulary texts, the main problem still exists: students have difficulty reading advanced materials because of an inadequate passive vocabulary, irrespective of the instructional material used. An
approach has yet to be found that deals with the problem effectively.

Semantic Fields

Research done in the area of semantic fields suggests that an approach based on semantic "clusters" might be a more productive strategy than the vocabulary approaches now being used in most ESL classrooms. Learning theorists working in the area of memory and recall have shown the superiority of recall of data that have been organized into logical semantic categories (Bousefield, 1953; Tulvig, 1962; Bower et al., 1969). This study will refer to these categories as semantic fields. A semantic field can be defined as a categorized domain of conceptually similar items. Mackey (1965: p. 76) defines a semantic field as "made up of basic key-words, which command an army of others. The semantic area may be regarded as a network of hundreds of associations, each word of which is capable of being the centre of a web of associations radiating in all directions."

Most research done in semantic field relationships has been limited mainly to early childhood vocabulary acquisition. These studies, primarily concerned with the acquisition of adjectives (Bierwisch, 1967; Donaldson and Wales, 1970; Wales and Campbell, 1970; H. Clark, 1970; E. Clark, 1972; Brewer and Stone, 1975), indicate that
there is a certain predictable order in acquisition of adjectives. Other studies in early childhood vocabulary acquisition have dealt with possession verbs within a semantic field (Gentner, 1975; Bendix, 1966; Fillmore, 1969).

In addition, psycholinguists in the Soviet Union have done considerable work in the area of semantic field research. They suggest that an approach incorporating semantic field relationships would be beneficial in teaching vocabulary (Sakharnyi, 1972; Zalevskaya, 1978).

Finally, American researchers in ESL (e.g., Connolly, 1973; Martin, 1976) have made investigations into semantic field relationships. Martin, in particular, presented concrete examples of semantic field methodology that can be used in the classroom.

However, very little, if any, empirical evidence has been produced either in support of or counter to a semantic field approach to vocabulary acquisition. What is known is that logically ordered material is easier to retain than information that is devoid of context. Chastain (1976: p. 54) asks, "Might it not be possible and preferable to help students learn vocabulary in a second language by associating new words with known concepts?" It is this question that the following study addresses.
CHAPTER BIBLIOGRAPHY


CHAPTER III

DESCRIPTION OF METHOD, PROCEDURE, AND INSTRUMENTS

Description of the Population

Students enrolled in Level 5 (of six levels) at the North Texas State University Intensive English Language Institute for the fall, 1983 semester served as the subjects of this study. There were forty-one students representing ten language groups. These students were assigned to one of four sections. Sections 1 and 2 comprised Group 1, and Sections 3 and 4 comprised Group 2 (Table I).

TABLE I

LANGUAGE GROUPS REPRESENTED

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Description of the Methods

The Semantic Field Approach

The materials for the semantic field approach were developed and written by John T. Crow, Assistant Professor of English at North Texas State University. The exercises were derived from an article on scientific experimentation (Hammerton, 1966: pp. 51-53) and selected passages from college-level texts on history (Bruun and Mamatey, 1962: pp. 391-394), psychology (Munn, Fernald, and Fernald, 1969: pp. 511-514), and anthropology (Ember, 1973: pp. 100-103, 21-22). Each of these passages was developed into a unit for study in the following manner. Words that might be troublesome for ESL students were identified and selected on the basis of teacher experience and intuition. Where possible, a keyword or a key phrase was established along with four additional words in the same semantic field. For example, if the word rage appeared in the text, then anger, a word that the students would probably know, was chosen as a keyword and four related words (i.e., fury, ire, wrath, and indignation) were added to complete a keyword group. Each of the four units contained 36 of these keyword groups, thereby exposing the students to 180 words per unit.

Exercises were then developed which were designed to reinforce the connection between the related words and their keywords. These exercises began at the word level
and moved quickly to the sentence and discourse level (see Appendix A for sample exercises). The different types of exercises required the students to (1) substitute the keyword for related words, (2) substitute related words for keywords in context, and (3) pick out the unrelated word from a group of related words. Each unit also contained one or more word puzzles. All of the exercises required recognition skills only--the students were never asked to use any of the words actively. The final exercise required the students to read, without recourse to a dictionary, and to discuss the original passage from which the keywords were derived. The students were encouraged to substitute the keywords mentally, i.e., the semantic field for each related word, while reading the passage.

Approximately fifteen minutes of classroom time per day were spent going over the material. The teacher was instructed not to spend classroom time on activities related to active acquisition of the target words, and the students were cautioned not to try to use the related words actively. The sole purpose of the exercises was recognition.

The Traditional Approach

The material for this presentation was developed by the author. The exercises for the traditional method presentation were patterned after the methods used in
three current texts (Barnard, 1975; Coomber, Peet, and Glatthorn, 1979; Markstein and Hirasawa, 1977). Two additional texts (Bromberg et al., 1975; Brownstein and Weiner, 1979) were used as references.

An alphabetical list of words with their definitions was presented. These words were randomly selected from the keyword groups. None of the keywords was used as the main word to be learned, but the keyword could be used as part of a definition. It was determined by the pilot study conducted during the spring of 1984 that the control group could not acquire as many words as the experimental group in the same amount of time due to the difference in format of the two presentations. Therefore, the students in the control group were exposed to only half as many words per unit as the semantic field group.

Subjects were asked to give derivatives of some of the words (with the aid of dictionaries), form original sentences with some of the words, and do matching exercises, multiple choice sentence-level exercises, word substitutions in paragraphs, and word puzzles. Approximately twenty minutes of classroom time per day were spent going over the material. It was found that students in the control group sometimes used more time due to the fact that the teacher was allowed to spend time on active acquisition in keeping with the approach found in the model texts (see Appendix B for sample exercises).
Procedure

The teachers were individually contacted prior to the experiment and given time schedules, teaching materials, and instructions for the first two units (see Appendix C). Materials and instructions for the second two units were given to the teachers upon completion of Unit 2 (see Appendix C). The teachers were instructed to keep a daily time sheet and keep track of absences and any problems that arose during the experiment. If a teacher had to be absent, either the author substituted for the teacher or neither teacher worked on the vocabulary that day. Therefore, the time spent in the class remained equal throughout the testing period (see Appendix D for the entire experiment schedule).

For the first half of the experiment, Group 1, the morning classes (8:30-12:15), was taught experimentally, and Group 2, the afternoon classes (1:15-4:55) was taught traditionally. For the second half of the experiment, the positions were reversed. There was little contact between the morning and afternoon classes, and neither group was informed of the experiment until after the fact.

Since both groups were informed that they would be responsible for the material presented, the testing situation very closely resembled a normal procedure on Post-tests 1 and 2. The students were notified that they would
be tested two days before these two tests. The students were held accountable for a larger body of knowledge than any single test could cover effectively. The test itself sampled areas within the entire corpus. The only difference was that the experimental group was unaware that the sample areas were drawn only from those words presented to the control group. There were no keywords used in the test items. All students were tested on the same days in both groups for all tests. The students were allowed to see their tests after they were graded but were not allowed to keep them.

For Posttest 3 (T4) neither group was notified that they would be tested on the entire corpus of material ahead of time. The teachers explained the testing by explaining that it was just a test to see how much they had remembered. For Posttest 4 (T5), students from the initial experimental group were notified and asked to take a test over the material they had studied during the fall semester. Only ten students were available to take the test. They could not study for the test because the vocabulary materials had been taken up at the end of the experiment.

A pilot study was conducted during the spring semester of 1983 at the North Texas State University Intensive English Language Institute in two sections of Level 5 students, the results of which were used to refine this study.
The preliminary study indicated that it was impossible for the traditional group to cover the same number of words in the same amount of time as the semantic field group. Therefore, it was decided to use half as many words in the traditional presentation.

The Experimental Design

Since the groups were already established by the school's level/section assignment procedures, an intact group design was used. Group 1 was initially the control group, and Group 2 was initially the experimental group; after the first two units, the situations were reversed. The experimental group received the keyword approach (semantic field), and the control group received the traditional method. A pretest over the vocabulary covered in Units 1 and 2 was administered to both groups. The same test was used later as the first posttest (see Appendix E for example test items). The independent variable was the method of instruction, i.e., by semantic field or by a more traditional approach. An overview of the design is as follows:

Gp 1: T1 ----- T2 --X-- T3 T4 T5
Gp 2: T1 --X-- T2 ----- T3 T4

T = test and X = treatment. The posttests (T2, Appendix F, and T3, Appendix G) covered the material taught in the intervening two weeks. The followup tests T4 and
were designed to test long-term retention of the material presented. The first followup test (T4) was given four weeks after the completion of the vocabulary instruction modules. During the interim, the students were studying intensive English twenty hours a week, but they were not studying vocabulary as a separate component. The final followup test (T5) was given to ten students from Group 1 who, after completing intensive study, were accepted into North Texas State University. These students had been in full-time university classes for two months (see Appendix H for T5).

The Criterion Instruments

Only the words covered in the control group units were utilized in the pretest and the posttests (T1, T2, T3, and T4). The posttests consisted of three parts: (1) seventy-two multiple choice sentences for which the subjects were required to choose the best of four words to fill in the blanks; (2) a paragraph with fourteen words or phrases underlined and a list of sixteen to eighteen words below the passage for which the subjects were required to put the number of the closest related word under the underlined word or phrase in the passage; (3) a paragraph with fourteen blanks for which the subjects were required to choose the best word for each blank from a given list of sixteen words. The first followup test (T4) contained fifty words from the first two units and
fifty words from the second two units. It was identical to the other two tests (T1, T2, and T3). The second followup test (T5) consisted only of words which had not been previously tested. The test contained fifty words from the untested half of the first two units and fifty words from the untested half of the second two units. It consisted of two parts: (1) fifty multiple choice sentences for which the subjects were required to choose the best of four keywords for the related word underlined in the sentence; (2) two paragraphs each containing twenty-five underlined words for which the subjects were required to write a related word or phrase in blanks below each paragraph. Table II presented an overview of the sources of the various tests.

**TABLE II**

**SOURCES OF MATERIAL FOR TESTING**

<table>
<thead>
<tr>
<th>Test</th>
<th>Unit 1 Exp 90</th>
<th>Unit 1 Cont 90</th>
<th>Unit 2 Exp 90</th>
<th>Unit 2 Cont 90</th>
<th>Unit 3 Exp 90</th>
<th>Unit 3 Cont 90</th>
<th>Unit 4 Exp 90</th>
<th>Unit 4 Cont 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1/2</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Exp 90 represents those ninety words presented to the experimental group only. Cont 90 represents those ninety words presented to the experimental and the control groups. X represents a source of vocabulary items for the test named in the results.
Since the experimental groups received training in a skill that the control groups did not receive—i.e., substituting a keyword for a related word—this type of task could not be included on the first four tests (T1-T4). Thus, in an effort to protect the integrity of the tests, the experimental groups worked with two disadvantages: (1) they were exposed to and held accountable for twice as many words in the same amount of time, and (2) they were not allowed to use the tool that was the raison d'être of their training: keyword substitution. Only on the final test (T5) were the students required to choose or produce a correct keyword.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The effectiveness of the two approaches, semantic field and traditional, was analyzed. An original population of 44 students was reduced to 42 due to students' absences on the day of one of the first four tests: T1/T2, T3, or T4.

Through statistical analysis of the collected data, the validity of each of the hypotheses as stated in Chapter I was determined. Data from the five tests were adapted for computer programming, and computations were processed by the university computing center.

The three research hypotheses were stated as null hypotheses with the 5 per cent level of confidence being utilized to determine the rejection of each hypothesis.

A pretest was given over the material covered in Units 1 and 2 to determine whether the two groups varied significantly prior to instruction. The same instrument was used as the first posttest (T2). Means and standard deviations of the pretest were computed, and the Levene procedure for homogeneity of variances was performed. The results indicated that there was a significant difference between variances ($f = 5.00, p < .05$), thus necessitating a nonparametric analysis. The differences
between the scores of the two groups were compared by the Mann-Whitney U test (Table III). Since there was no significant difference between the two groups on the material covered in Units 1 and 2, a pretest over the material in Units 3 and 4 was deemed unadvisable; the potential for practice effect would be much greater if, once again, the same test were to be used for a pre- and posttest.

TABLE III
PRETEST DIFFERENCE BETWEEN GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>U</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>18</td>
<td>19.75</td>
<td>184.5</td>
<td>-0.802*</td>
</tr>
<tr>
<td>Group 2</td>
<td>24</td>
<td>22.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant (p > .42).

Hypothesis 1

Research hypothesis 1 was stated to read: There is no significant short-range difference in retention of passive vocabulary between the semantic field presentation and the traditional presentation.

A posttest was given after the first two experimental units (T2) and again after the second two experimental units (T3). The statistical design used to test for treatment differences was a two-factor analysis of variance
with repeated measures on one factor. Table IV shows the descriptive statistics for the two tests, and Table V gives the analysis of variance data.

**TABLE IV**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Posttest 1 (T2)</th>
<th>Posttest 2 (T3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Group 1</td>
<td>18</td>
<td>82.55*</td>
<td>8.19</td>
</tr>
<tr>
<td>Group 2</td>
<td>24</td>
<td>80.17*</td>
<td>9.24</td>
</tr>
</tbody>
</table>

*Control group score.
*Experimental group score.

There were no significant differences between groups or within groups. However, there was a significant interaction: the traditional test results were better than the experimental test results ($p < .01$).

Although an analysis of variance on Posttest 1 and Posttest 2 showed no significant difference between the experimental and control groups on the first posttest (T2), an analysis of covariance, using the scores from the pretest (T1) as the covariate, revealed that the adjusted mean score for the control group (83.58) was
significantly higher than the adjusted mean score for the experimental group (78.23) (p < .05).* Table VI gives a summary of the results.

**TABLE VI**

ANALYSIS OF COVARIANCE FOR PRETEST AND POSTTEST 1 (T2)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>293.38</td>
<td>5.29</td>
<td>0.03</td>
</tr>
<tr>
<td>Within groups</td>
<td>39</td>
<td>1141.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Therefore, a parametric procedure was performed for two reasons: (1) there is no nonparametric correlate to analysis of covariance, and (2) a parametric t-test for independent samples on the pretest (T1) strongly corroborated the absence of significant differences between the two groups revealed by the Mann-Whitney U test (t = 0.50, p > .62).
The presence of the significant F ratio (5.29) between groups and the significant interaction on ANOVA led to a rejection of the first hypothesis of no significant short-term difference between a semantic field approach of vocabulary presentation and a traditional approach.

Hypothesis 2

Research hypothesis 2 was that there is no significant long-range difference between a semantic field approach to passive vocabulary and a traditional approach.

Four weeks after the final unit, the subjects were given an unannounced followup test (T4) to determine whether or not there was a significant difference in long-term retention between the two approaches. The students were not informed of the test in advance so as to hold constant the effect of individual study habits and motivation. Half of the test was drawn from the first two units, and half was drawn from the second two units. These halves were randomly merged together into one testing instrument. Thus, Group 1 had been exposed to half of the words experimentally and half of the words traditionally, the mirror image of which was the case for Group 2. A two-by-two analysis of variance was used to analyze the data obtained. Table VII gives the descriptive statistics,
TABLE VII
MEANS AND STANDARD DEVIATIONS FOR FOLLOWUP TEST 1 (T4)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Units 1/2</th>
<th></th>
<th>Units 3/4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Group 1</td>
<td>17</td>
<td>36.76*</td>
<td>5.82</td>
<td>37.29°</td>
<td>7.93</td>
</tr>
<tr>
<td>Group 2</td>
<td>21</td>
<td>40.19°</td>
<td>6.08</td>
<td>39.09*</td>
<td>4.62</td>
</tr>
</tbody>
</table>

*Words presented traditionally.
°Words presented experimentally.

and Table VIII shows the analysis of variance data. There was no significant difference for either main effect or interaction. Therefore, the second null hypothesis was retained.

TABLE VIII
ANALYSIS OF VARIANCE FOR FOLLOWUP TEST 1 (T4)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>128.33</td>
<td>1.86</td>
<td>0.18</td>
</tr>
<tr>
<td>Within groups (words)</td>
<td>1</td>
<td>1.50</td>
<td>0.23</td>
<td>0.63</td>
</tr>
<tr>
<td>Interaction</td>
<td>1</td>
<td>12.40</td>
<td>1.88</td>
<td>0.18</td>
</tr>
<tr>
<td>Error</td>
<td>36</td>
<td>6.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 3

Research hypothesis 3 was that there is no significant difference between long-term passive vocabulary retention acquired through semantic field exposure and unstructured random exposure to general academic English acquired in a university environment.

During the last week of February, 1984, those students from Group 1 who were at North Texas State University were contacted and asked if they would take an exam over the vocabulary that they had studied at IELI during the fall semester of 1983. Some of the students had moved away or failed to appear for the exam. The students were asked not to study for the exam and were, in fact, unable to do so because they were not allowed to keep the material used in the experimental presentation.

Followup test 2 (T5) was given to ten students from Group 1 on March , 1984, after they had been enrolled in full-time university work at North Texas State University for two months. The test was given to answer two questions.

Question 1: Half of the words presented experimentally were not included on any testing instrument. Did learning occur in this area?

Question 2: If learning occurred, was the material presented by the semantic field approach retained and was vocabulary retention of it significantly better than the
learning that occurred as the subjects continued their intensive English studies and then their university studies without formal vocabulary instruction?

Half of the test came from the untested half of Units 1 and 2 (to which the group had been exposed experimentally) and half came from the untested half of Units 3 and 4 (to which the group had not been formally exposed). Means and standard deviations were computed for each half of the test; differences between means were analyzed by use of a matched t-test (Table IX). It was shown that the subjects performed significantly better on the experimental half of the test. Thus, the third null hypothesis was rejected.

TABLE IX
MEANS AND STANDARD DEVIATIONS FOR FOLLOWUP TEST 2 (T5)

<table>
<thead>
<tr>
<th>Half of Test</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental half</td>
<td>10</td>
<td>34.2</td>
<td>4.18</td>
<td>25.84*</td>
</tr>
<tr>
<td>Control half</td>
<td>10</td>
<td>24.7</td>
<td>2.50</td>
<td></td>
</tr>
</tbody>
</table>

*p < .00001.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was concerned with two groups used to determine the effects of two methods of vocabulary presentation, a semantic field approach and a traditional approach, on the acquisition of passive vocabulary of advanced ESL students at the North Texas State University Intensive English Language Institute during the fall semester of 1984.

The four major purposes of this study were to ascertain the short-term gains in passive vocabulary of the two groups, to determine whether these gains were maintained after four weeks, to determine whether learning did occur in that portion of the material that had been presented but not formally tested, and to determine whether controlled exposure to passive vocabulary (the semantic field approach) was more effective than a four-month period of uncontrolled exposure in an academic environment.

The material presented in this study consisted of four vocabulary units derived from college level texts. Each group was exposed to two units of traditional material and
two units of semantic field material. A pilot study conducted during the spring semester of 1983 had indicated that the control group could not cover the same amount of words in the same amount of time as the experimental group. Thus, the traditional group was held accountable for only 90 words per unit, whereas the semantic field group was held accountable for 180 words per unit.

A pretest over Units 1 and 2 was given to both groups prior to treatment. Group 1 was the experimental group for Units 1 and 2, and Group 2 was the control group. Upon completion of Unit 2, the same test was again given as Posttest 1 to determine short-term retention of vocabulary. Since there was no significant difference between the two groups on the pretest, no pretest was deemed necessary for Units 3 and 4. For these units, Group 1 became the control group receiving traditional exposure while Group 2 became the experimental group receiving semantic field exposure. Although there was no significant difference between groups on the pretest, ANCOVA revealed a significant difference in favor of the control group for short-term passive vocabulary retention. ANOVA revealed no significant difference between or within groups, but a significant interaction in favor of the control group was discovered.

Two followup tests, Posttest 4 and Posttest 5, were given to determine long-term retention. Statistical
analysis revealed that there was no significant difference on Posttest 4. Posttest 5, which was administered four months later, showed that learning had occurred in the untested portion of the material presented and that vocabulary acquisition through a semantic field treatment was significantly better than vocabulary acquisition through random exposure (insofar as the words in this study are concerned).

Findings

The major findings resulting from this study are as follows.

1. There was a significant difference in short-term results in favor of the control group. Thus, the first hypothesis was rejected.

2. There was no significant difference in long-term gain of passive vocabulary after a four-week period between the semantic field group and the traditional group. Thus, the second hypothesis was retained.

3. There was a significant difference in passive vocabulary acquisition in favor of the semantic field exposure as opposed to unstructured random exposure to general academic English. Thus, the third hypothesis was rejected.
Conclusions

The keyword method, utilizing a semantic field approach to the teaching of passive vocabulary, is not magic. Experimental subjects were unable to learn twice as many words in the same amount of time as those using the traditional approach without having some short-range disadvantages in the testing situation. However, this disadvantage seems to disappear on long-range testing. Thus, the overall results of this study lend support to the theory that a semantic field approach is a more effective and efficient builder of passive vocabulary.

1. Twice as many words can be covered in a given period of time with the keyword approach as can be covered using a more traditional approach (as defined in this study).

2. Long-term retention (of twice as many words) is at least as good for the keyword approach as it is for a more traditional approach.

3. The keyword approach is a more effective builder of passive vocabulary than unstructured random exposure to academic English (insofar as the words covered in this study are concerned).

Student reaction to the keyword method was surveyed and found to be positive (see Appendix I for the results of the survey).
Recommendations for Further Research

1. Although the approach seems to be superior with four units, would proactive and retroactive interference inhibit learning if more units were attempted?

2. Would the keyword method produce significant effects in the reading comprehension process per se?

3. What would happen if the disadvantages to the experimental groups inherent in this study were removed? Research testing reading comprehension rather than vocabulary retention might allow for this.

4. Is there a more effective way of teaching vocabulary by semantic field associations than that employed in this study?

A weak passive vocabulary is a serious problem for non-native speakers of English who need to read university-level material. Traditional approaches to the teaching of vocabulary have been organized around principles that are not based on meaning: random samples, frequency of occurrence, or alphabetical combinations of the two. Furthermore, these approaches often fail to differentiate between active and passive requirements of the students. Learning theorists have pointed out for years that long-term retention of information that has been organized into some type of cognitive categories is superior to retention of randomly presented material. This research lends tentative support to an approach which is more in keeping with our understanding of how the human mind works: a semantic field approach to passive vocabulary.
APPENDIX A

KEYWORD APPROACH SAMPLE EXERCISES

Each keyword unit was comprised of fourteen exercises. There are eight different types of exercises in each unit. Sample formats of each type, with the exception of crossword puzzles (Exercise 11), are shown below.

VOCABULARY FOR ADVANCED READING COMPREHENSION
CHAPTER 2

Exercise 1.* The first word in each group below is the keyword. All of the words under each keyword (synonyms) have a similar meaning. Read each group and try to remember which synonyms go with which keyword.

1. INTERRUPTION
   gap
disjunction
disruption
interval
disconnection

2. PIECE
   share
   portion
   allotment
   appropriation
   proportion

3. TRADE
   intercourse
   barter
   dealings
   exchange
   commerce

4. TO WORSEN
   slump
   decline
   deteriorate
   degenerate
   regress

5. PRODUCT
   ware
   commodity
   goods
   merchandise
   produce

6. TO REPAIR
   fix
   renovate
   refurbish
   restore
   mend

7. WORK
   labor
   toil
   effort
   exertion
   drudgery

8. TO DELAY
   hinder
   hamper
   obstruct
   impede
   retard

9. TO KEEP
   preserve
   sustain
   uphold
   maintain
   conserve

10. PEOPLE
    colonists
    settlers
    inhabitants
    residents
    dwellers

11. TO TROUBLE
    beset
    perturb
    afflict
    distress
    harass

12. WEALTH
    opulence
    means
    resources
    affluence
    prosperity

*Exercises 1, 4, and 7 have the same format.
Exercise 2.* A. Each group of synonyms is written below without keywords. Write the correct keywords over each keyword group.

B. Each group of synonyms has ONE word that does not belong in the group. Find that word, cross it out, and write it in the group to which it belongs.

The first one is done for you as an example.

<table>
<thead>
<tr>
<th>PRODUCT TO KEEP</th>
<th>PEOPLE TO WORSEN</th>
<th>TO REPAIR WEALTH</th>
<th>TO DELAY</th>
<th>INTERRUPTION TO TROUBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT</td>
<td>PEOPLE</td>
<td>TO REPAIR WEALTH</td>
<td>TO DELAY</td>
<td>INTERRUPTION TO TROUBLE</td>
</tr>
<tr>
<td>TO KEEP PIECE</td>
<td>TO WORSEN TRADE</td>
<td>TO REPAIR WEALTH</td>
<td>TO DELAY</td>
<td>INTERRUPTION TO TROUBLE</td>
</tr>
<tr>
<td>1. gap</td>
<td>share</td>
<td>intercourse</td>
<td>barter</td>
<td></td>
</tr>
<tr>
<td>affluence</td>
<td>portion</td>
<td>barter</td>
<td>dealings</td>
<td></td>
</tr>
<tr>
<td>disruption</td>
<td>allotment</td>
<td>dealings</td>
<td>exchange</td>
<td></td>
</tr>
<tr>
<td>interval</td>
<td>exertion</td>
<td>exchange</td>
<td>dwellers</td>
<td></td>
</tr>
<tr>
<td>disconnection</td>
<td>proportion</td>
<td>dwellers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>slumpy</td>
<td></td>
</tr>
<tr>
<td>ware</td>
<td></td>
<td></td>
<td>decline</td>
<td></td>
</tr>
<tr>
<td>disjunction</td>
<td>fix</td>
<td></td>
<td>uphold</td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>renovate</td>
<td></td>
<td>degenerate</td>
<td></td>
</tr>
<tr>
<td>merchandise</td>
<td>refurbish</td>
<td></td>
<td>regress</td>
<td></td>
</tr>
<tr>
<td>produce</td>
<td>restore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>perturb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. ware</td>
<td></td>
<td></td>
<td>slump</td>
<td></td>
</tr>
<tr>
<td>disjunction</td>
<td>fix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>renovate</td>
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<td>merchandise</td>
<td>refurbish</td>
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<td></td>
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<tr>
<td>produce</td>
<td>restore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>perturb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. ware</td>
<td>fix</td>
<td></td>
<td>slump</td>
<td></td>
</tr>
<tr>
<td>disjunction</td>
<td>renovate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>refurbish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>merchandise</td>
<td>restore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>produce</td>
<td>perturb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ware</td>
<td></td>
<td>labor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disjunction</td>
<td>fix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>renovate</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>merchandise</td>
<td>refurbish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>produce</td>
<td>restore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>perturb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. ware</td>
<td></td>
<td>labor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disjunction</td>
<td>fix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>renovate</td>
<td></td>
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<tr>
<td>merchandise</td>
<td>refurbish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>produce</td>
<td>restore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>perturb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. preserve</td>
<td>colonists</td>
<td>beset</td>
<td></td>
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</tr>
<tr>
<td>sustain</td>
<td>settlers</td>
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<tr>
<td>hinder</td>
<td>inhabitants</td>
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<td></td>
</tr>
<tr>
<td>maintain</td>
<td>commodity</td>
<td></td>
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</tr>
<tr>
<td>conserve</td>
<td>residents</td>
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*Exercises 2, 5, and 8 have the same format.
Exercise 3.* Each sentence below uses a keyword:
A. Underline the keyword.
B. Find the word in the list below each sentence that is not a synonym for the keyword. Circle that word. The keyword numbers from Exercise 1 are in parentheses. These will help you if you need to look back.
C. After completing steps A and B above, go back and write the circled word under the keyword in one of the other sentences to which it belongs.

1. The police were present during the soccer game to keep law and order.
   a. maintain  b. uphold  c. refurbish  d. sustain (9)

2. Being a good student requires a lot of work.
   a. opulence  b. labor  c. exertion  d. effort (7)

3. The rain delayed the construction project.
   a. impeded  b. obstructed  c. hampered  d. preserved (8)

4. There was a wide variety of products for sale at the market.
   a. merchandise  b. toil  c. commodities  d. goods (5)

5. The interruption caused by the electrical problems lasted 15 minutes.
   a. interval  b. exchange  c. gap  d. disconnection (1)

6. The poisonous gas caused most of the people in the area to move out.
   a. residents  b. settlers  c. dwellers  d. shares (10)

7. Inflation always causes the economic situation of a country to worsen.
   a. harass  b. deteriorate  c. degenerate  d. regress (4)

8. The discovery of oil brought sudden wealth to the country.
   a. affluence  b. wares  c. prosperity  d. resources (12)

9. The necessity for international trade has created worldwide interdependence.
   a. disruption  b. intercourse  c. commerce  d. dealings (3)

10. Wars have always troubled mankind.
    a. distressed  b. afflicted  c. beset  d. hampered (11)

11. The people began to repair the area after the bombing.
    a. restore  b. decline  c. fix  d. renovate (6)

12. The property was divided into four pieces.
    a. portions  b. allotments  c. inhabitants  d. proportions (2)

*Exercises 3, 6, and 9 have the same format.
**Exercise 10.** Write the keyword in the blank for the underlined word in the sentence. The number in parentheses can be used to check your answer.

1. Although the man had been rich at one time, he died *penniless* (16).

2. The worker tried to save the injured man, but it was to no *avail* (26).

3. The judge always tried to *inflict* (33) a punishment that was more severe than necessary.

4. The government *renovated* (6) the old house and turned it into a museum.

5. The high winds *hampered* (8) the search party.

6. Taxes attempt to *distribute* (30) the wealth more evenly.

7. The owner was a man of great *means* (12).

8. The *merchandise* (5) that was available in the store was expensive.

9. The revolution resulted in the *annihilation* (20) of the ruling class.

10. The rising cost of oil was an *obstacle* (25) to the economic recovery of the country.

11. The *peddler* (32) had a wide variety of fresh fruit.

12. The *effort* (7) involved in becoming successful in politics can be enormous.

13. The increase in crime *distressed* (11) the citizens.

14. The U.S. produces an *oversupply* (26) of agricultural goods almost every year.

15. The senator lived in a *prosperous* (28) area of Washington, D.C.

16. One is able to find a wide variety of entertainment within the * confines* (18) of the downtown area.

*The actual exercise contains 36 sentences.*
Exercise 12.* Each sentence has a word underlined. Circle the correct keyword.

1. Scientists know very little about the origin of the earth (35).
   a. world  b. people  c. mystery  d. destruction

2. A responsible public official must work for the benefit (36) of his voters.
   a. destruction  b. work  c. good  d. wealth

3. Payment for the goods (5) must be made upon receipt.
   a. pieces  b. products  c. sellers  d. work

4. The discovery of oil resulted in prosperity (12) for the people.
   a. good  b. work  c. trade  d. wealth

5. There were few gaps (1) in his knowledge of the history of Germany.
   a. interruption  b. difficulties  c. geographical limits
d. mysteries

6. The development of the plans for the dam hit a snag (25).
   a. interruption  b. destruction  c. problem  d. geographical limit

7. The threat of invasion alarmed the residents (10).
   a. people  b. sellers  c. world  d. problem

8. A portion (2) of our taxes goes to support public education.
   a. more than necessary amount  b. piece  c. product  d. wealth

9. After the farmer's death, his land fell to ruin (20).
   a. people  b. interruption  c. work  d. destruction

10. Retailers (32) from all over the world went to the fashion show.
    a. products  b. wealth  c. sellers  d. people

11. The soldiers pushed the invaders back to the edge (18) of the homeland.
    a. work  b. geographical limit  c. destruction  d. people

12. The labor (7) force became smaller and smaller as the war continued.
    a. work  b. trade  c. world  d. seller

*The actual exercise contains 36 sentences.
Exercise 13.* The following reading passages have words underlined. Read the passage, writing the keywords for each in the blanks below.

Historians concur that the Europeans maintained a central position in the world during the nineteenth century. It is impossible to understand the obstacles that face the inhabitants of the planet today without bearing in mind what allowed this to take place. There were three factors that were primarily responsible.

The first factor that contributed was the fact that there was within the European boundaries an exceptionally large portion of the world's cultivatable land. This allowed them to feed their people without serious adversity and gave them a thriving trade.

The second factor was control of the seas. The Europeans, with their superior arms and ships, could attack any other people on other continents while defending themselves from annihilation at home. Dealings in commodities by sea brought affluence to the continent while many other areas of the world deteriorated. No one can deny that many of the problems that beset other continents during the nineteenth century were not present in Europe due to its control over the oceans.

The third advantage that the Europeans enjoyed was their astounding development in science and technology. With the development of steam power and electricity came a bountiful supply of energy. This allowed the diligent workers to produce goods for the merchants more cheaply and quickly, speeded up transportation, and improved communication.

1. _________ 6. _________ 11. _________ 16. _________
2. _________ 7. _________ 12. _________ 17. _________
3. _________ 8. _________ 13. _________ 18. _________
5. _________ 10. _________ 15. _________ 20. _________

*There are from two to four of these short readings in the actual exercise per unit.
Exercise 14. Read the following article. Do not use a dictionary. At least one synonym for each of the keyword groups is in this article. Try to remember the proper keywords as you read. The answer the questions at the end of the article.

ECONOMIC INTERDEPENDENCE OF THE MODERN WORLD

In modern times the methods by which civilized peoples obtain food and goods and services have grown more involved and more complex with each passing year. In a primitive society a tribe or even a single family may manage to support itself with little or no outside aid. During the Middle Ages the inhabitants of many European hamlets raised their own food, made and mended their own tools, tanned their own leather, fashioned their own shoes and harnesses, and wove their own cloth. People who meet their own simple needs from their own limited local resources are said to be economically self-sufficient. Even in the Middle Ages, however, dwellers in remote isolated villages obtained a few articles they could not produce themselves by buying them from traveling merchants. Or they might journey to a town a few miles away and purchase goods at a fair. Thus they were not exclusively dependent on their own labor.

The Age of Discovery, at the close of the Middle Ages, opened the oceans of the world to European ships and made it possible for Europe to obtain goods from distant continents. Later, with the Industrial Revolution, the Europeans learned to produce quantities of manufactured goods cheaply and to sell what they did not need in exchange for raw materials, tropical products, and additional food. During the nineteenth century international trade—trade between countries and between continents—increased at a rapid rate. By 1900, the total value of such commerce was ten times as great as it had been in 1800. By 1913, it was twenty times as great; and by 1929 (despite the disruption of World War I), it was over thirty times as valuable as it had been in 1800. In other words, almost all nations in the nineteenth and twentieth centuries became increasingly dependent on foreign markets, on selling goods to and buying goods from countries in other parts of the world.

As the value of this international trade increased, the peoples of the world became more dependent on one another. Countries that possessed a surplus of some commodities sought to exchange that surplus for goods they wanted but lacked the means to produce for themselves. International trade brought the nations of the world into closer contact. It made them more dependent on one another and made it more important that they cooperate in supplying one another's needs for the benefit of all. The American economist Henry George summed up this situation very simply in three words. He said: Civilization is cooperation.
The fact that, by the twentieth century, the world had come to resemble one vast market helps to explain its rapid progress and development. It helps to explain why goods were produced more abundantly and distributed more widely than ever before, why standards of living rose, and the global population increased at an astonishing rate. Unfortunately, however, the increase in food and manufactured goods, the increase in wealth and prosperity, was not equally distributed. Some nations that possessed or achieved unusual advantages, that developed more effective machines and techniques, grew wealthy. Other nations, less favored by nature, less efficient, less resourceful, or less industrious, remained poor. Just as in individual countries a small minority of the inhabitants might be exceptionally wealthy and might preserve and enlarge their family fortunes while the majority remained relatively poor, so among the nations of the world a few achieved a high standard of wealth while the majority subsisted on very much lower incomes.

Some countries and continents enjoyed a much larger share of world trade than others, and the countries with a large foreign trade were the wealthy countries where income and living standards were high. Before World War I, for example, Europe, with about one-fourth of the world's people, monopolized nearly 60 per cent of the world's international trade. This was more than twice as much as the Europeans would have controlled if the international trade of each continent had been proportional to its population. After World War I the European share declined to less than half the world total while that of North America (the United States and Canada) rose. By 1926, the North Americans claimed one-fifth of the international trade of the globe, nearly three times as much as their numbers would have entitled them to if this trade had been divided in proportion to population. But their good luck was due in part to the destruction and dislocation Europe had suffered during the war. After 1926, the Europeans recovered some of the trade they had lost, while the share the North Americans had obtained declined.

These facts suggest several points concerning international trade which it is important to remember. In theory the universal exchange of goods seems deceptively simple. If every people produced those goods which their resources and skills best fitted them to produce and all nations were willing and able to exchange goods freely, the whole world would benefit and its peoples would become more and more cooperative and interdependent. To some extent this is what has come about in modern times. But the growth of international trade has been slowed and hampered by three difficulties that proved very hard to overcome. It is impossible to understand the strains and tensions of the modern world unless these obstacles to trade, and their causes, are taken into account.

The first difficulty is that the peoples whose need is greatest buy the least. For trade is an exchange and very poor people with low
incomes have little surplus to offer for things they lack. In 1926, for instance, Asia, Africa, and South America together held over three-quarters of the world population but enjoyed only one-quarter of its international trade. A second difficulty is that a rich nation that could afford to buy the surplus a poor nation offers frequently refuses to do so. Some Asian countries that need and want to buy machines or medicines from the United States may have cotton or rice to offer in exchange. But American farmers also raise cotton and rice. To protect them, the United States may refuse to buy cotton or rice from Asia although it is cheaper than their own. This may mean that American consumers pay higher prices for their home-grown rice or cotton than they need to do, and the Asian people, who want to buy goods from the United States, are unable to buy them. Tariff barriers and other obstacles that nations impose on the free exchange of goods obstruct international trade. Governments do not regulate their trade in the way that will be best for humanity as a whole. They do not always regulate it in the way that would be most advantageous for their own people as a whole. Sometimes they impose import duties on a commodity in a way that inflicts a hardship on foreigners and on most of their own people but enables a small number of their own people to obtain a higher price for their products. It must be kept in mind, however, that by producing a commodity within its own frontiers, even if it could buy an ample supply more cheaply abroad, a nation preserves one important advantage. Its supply of that commodity cannot be cut off by a blockade or a war.

In a world of competing states every nation seeks to protect itself. It wants other countries to become dependent on it, but it does not want to become dependent on them. This situation creates a paradox. For, while international trade makes nations more interdependent, they try to regulate their imports and exports in such a way that they will be more independent. The basic wish of every nation is to be secure and prosperous, but these selfish goals are unattainable. In the world of the twentieth century no country is secure from attack, and prosperous countries excite the envy of the impoverished majority. This is one reason why the modern age has been called "the Age of Anxiety," but there are other reasons also for the strains and tensions that afflict modern society.

1. Were all primitive societies truly self-sufficient?

2. What role did the Age of Discovery play in increasing the economic interdependence of the modern world? The Industrial Revolution?

3. Why did Henry George say that civilization is cooperation?

4. Why was the prosperity created by world trade not distributed equally?
5. Discuss the role that World War I played in determining the share of world trade that Europe controlled.

6. This article states that "the peoples whose need is greatest buy the least." Why is that true?

7. Why does the U.S., for example, refuse to buy cotton and rice from Asia?

8. How do governments regulate their trade?

9. What is the most important advantage in protecting the production of a commodity within a nation's frontiers?

10. What is the paradox created by international trade?
APPENDIX B

TRADITIONAL APPROACH SAMPLE EXERCISES

Each traditional unit was composed of four separate lessons (A, B, C, and D). There are five exercises for each lesson. There is also a crossword puzzle or find-a-word exercise at the end of each unit. Sample exercises from an actual lesson are shown below, with the exception of the crossword puzzle and find-a-word exercise.

Level 5 VOCABULARY-BUILDING EXERCISES
Unit 2, Part B

1. adroit, adj.--skillful, having the ability to use the skills of mind or hand.
2. appropriation, n.--act of setting aside something for a special purpose, especially money.
3. astound, v.--to shock with surprise.
4. intercourse, n.--exchange of feelings, actions (in relation to interchange in business)
5. be willing to, v.--to agree.
6. colonists, n.--people who settle in a new colony, country, or area.
7. conserve, v.--to use a supply carefully without waste.
8. deteriorate, v.--to become worse, i.e., situation, condition.
9. fraudulent, adj.--deceitful, got or done by fraud.
10. hamper, v.--to cause difficulty in movement or action.
11. hindrance, n.--something or somebody that hinders or delays.
12. industrious, adj.--hard-working.
13. interval, n.--stretch, period of time between events.
14. merit, n.--quality of deserving praise or reward.
15. opulence, n.--state of great, splendid, and showy wealth.
16. peddler, n.--a person who goes from place to place trying to sell small goods.
17. perturb, v.--to cause to worry.
18. ravage, v.--to ruin and destroy (like a village during a war).
19. renounce, v.--to give up a claim, to say formally that one does not own.
20. secluded, adj.--hidden or apart from view, very quiet and private.
21. subsist, v.--to keep alive, exist, especially when having a small amount of food or money.
22. take place, v.--happen, transpire.

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VOCABULARY EXERCISES
Exercise 1
Unit 2, Part B

Look up the following words in the dictionary and find the other parts of speech for the word. Then use one of the words in each group and put it in a sentence. Some words have only one part of speech. Others may have several.

1. colonist, n.--

2. deteriorate, v.--

3. renounce, v.--

4. interval, n.--

5. secluded, adj.--
Match the words in column A with the words in column B.

1. perturb
   A. great wealth
2. peddler
   B. praise, reward
3. conserve
   C. agree to
4. hindrance
   D. ruin and destroy
5. renounce
   E. deceitful
6. adroit
   F. hard-working
7. subsist
   G. to give up claim to
8. astound
   H. something that delays
9. be willing to
   I. seller
10. opulence
    J. glut
11. ravage
    K. use carefully without waste
12. appropriation
    L. barter
13. fraudulent
    M. exist
14. industrious
    N. surprise
15. merit
    O. worry
    P. skillful
    Q. setting aside something for a special purpose, i.e., money
Level 5

VOCABULARY EXERCISES

Unit 2, Part B

Exercise 3*

Read the following sentences and pay attention to the underlined word/words. Read the four choices given and select the one that is closest in meaning to the underlined one/ones.

1. By doubling the profits of the company in only one year, Mr. Olson proved that he was a very adroit businessman.
   a. perilous  b. skillful  c. large  d. solemn

2. The organization set aside a certain amount of money for charity.
   a. appropriated  b. reflected  c. risked  d. explained

3. His strong southern accent caused him difficulty.
   a. confused  b. deceived  c. hampered  d. rejected

4. The music instructor was astounded that Marian could play the piano so well after only one lesson.
   a. shocked  b. depressed  c. convinced  d. doubtful

5. During a long drought, everyone must be aware that the water supply be used carefully.
   a. pondered  b. dispersed  c. denied  d. conserved

6. The political situation continues to deteriorate in certain areas of the world.
   a. refurbish  b. flourish  c. worsen  d. transpire

7. During the lengthy exchange of ideas that took place at the last arms conference, neither party wanted to compromise.
   a. intercourse  b. alteration  c. selection  d. unanimity

8. Are you sure that he is willing?
   a. attains  b. agrees  c. thinks  d. asserts

9. Did you hear what took place here last night?
   a. survived  b. happened  c. ravaged  d. declined

10. The policeman told the man selling pots and pans on the corner to move on because it was against the city laws to sell goods without a license.
    a. conserver  b. settler  c. peddler  d. destructor

11. It really perturbed Jane that she hadn't heard from her boyfriend for two weeks.
    a. worried  b. regressed  c. maintained  d. restored

*The actual exercise contains either 22 or 23 multiple choice selections.
When the first colonists came to America, they came for many reasons. Some came because they would not be willing to renounce their religion. They had been persecuted in England for their beliefs and did not want to be industrious in practice of their beliefs. Others came because they were poor and wanted to start a new life. They were even adroit enough to work for another person for a certain period of time to pay off debts they owed. America was a harsh and hard land for the new settlers. It was difficult to subsist here for many because the climate was very cold in the winter. They had to be very industrious and adroit and build their own houses by chopping down trees in the forests. They had to learn to conserve the few supplies that they had because it took months for a ship to come from England. There were many things that happened in early America that caused many of them to want to return to England. Some could not tolerate the secluded life in the wilderness, but enough stayed and others came, and they began building the nation which is now the United States of America.
APPENDIX C

SAMPLES OF TEACHER'S TIME SHEETS AND INSTRUCTIONS

Each teacher was given a time sheet for each unit and general and specific instructions for presenting both materials in class. Below are samples of the time sheets and instructions.

KWA Time Sheet

Teacher instructions: Please put the amount of time spent teaching vocabulary each day on the chart below. Also note the number of pages given for homework and the names of the students who are absent.

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Comments:
Jackie

Instructions for Vocabulary
KWA Experiment (Control Group 1)

General instructions: Teach the vocabulary in the traditional method. You may give examples, explain how the word is used in context, give additional synonyms, etc., if necessary.

Format: Each chapter has been divided into four sections for easier handling. Chapter One is referred to as Unit 1 and is divided into four sections: A, B, C, and D. Each section will contain 22 or 23 words and have four exercises after each list. At the end of the unit, an exercise which includes all the vocabulary will be given (this is not the posttest).

Suggested method of teaching and time schedule: Unit 1, 9 days

9/13 Day 1--Introduce the words, pronounce them, explain (Unit 1, Part A). Assign Exercises 1, 2, and 3 for homework.

9/14 Day 2--Go over some of the exercises. I do not think it is necessary to go over each exercise. However, use your discretion. Do Exercise 4 in class.

9/15 Day 3--Same procedure as Day 1. Introduce Unit 1, Part B. Assign Exercises 1, 2, and 3.

9/16 Day 4--Same as Day 2. Go over exercises. Do Exercise 4 in class.

9/17 Day 5--Same as Days 1 and 3. Introduce Unit 1, Part C in class. Assign Exercises 1, 2, and 3 for homework.

9/20 Day 6--Same as Days 2 and 4. Go over exercises. Do Exercise 4 in class.

9/21 Day 7--Same as Days 1, 3, and 5. Introduce Unit 1, Part D. Assign Exercises 1, 2, and 3 for homework.

9/22 Day 8--Go over Exercises 1, 2, and 3 and do Exercise 4 in class.

9/23 Day 9--Give final exercise for the entire unit. You can grade it for a test grade if you like. Do not tell them that it might be used for a test grade. ***This is not a posttest. If time permits, give the crossword puzzle for the unit.

Day 10--Start new unit.
Instructions for Vocabulary
KWA Experiment (Experimental Group 1)

Units 1 and 2

Chapter 1, KWA

Go over Introduction, Explanation--

9/13 Day 1—Go over p. 1—pronounce words; p. 2—in class Ex. 2; p. 3—explain, go over.

9/14 Day 2—Go over Ex. 3; pronounce words on p. 4; assign p. 5 and p. 6, p. 7 for homework.

9/15 Day 3—Go over p. 5 and p. 6, p. 7; assign pp. 8 and 9 for homework.

9/16 Day 4—Go over pp. 8 and 9; assign pp. 10, 11, and 12 for homework.

9/19 Day 5—Go over pp. 10, 11, and 12; assign pp. 13, 14, and 15.

9/20 Day 6—Go over pp. 13, 14, and 15; assign Ex. 13, #1.

9/21 Day 7—Go over #1, p. 16; assign #2, p. 16, and #3, p. 17.

9/22 Day 8—Go over #2 and #3; assign pp. 18, 18, and 20 and exercises.

9/23 Day 9—Go over last reading.

9/26 Day 10—Start Chapter 2.

Note: Need additional day for Chapter 2.
Special instructions regarding teacher absences and errors in the texts: If for any reason one of you has to be absent, please notify me. Also, if you plan to take your class someplace that day, let me know. If one teacher cannot teach the class, I need to know. A substitute can handle the control group. Please notify your substitute to keep track of time spent on vocabulary exercises (Suzan).

Jackie, if you are going to be absent, I will take the class, at least for the vocabulary exercises.

If there are any problems or questions, let me know.

Jackie, there are several typographical errors in Chapter 4. I will give you a correction sheet on this chapter before you get there. If you find any typos in Chapter 3, let me know. Keep a list.

Suzan, you will find that, because you are using the synonyms presented in the KWA book, some exercises may have two words which are similar in meaning. It is okay if you give the word as a synonym before you get to it. Please do not refer to the book, though. I prefer that you not look at Chapters 3 and 4 in the Keyword Book while you are teaching the control group.

Thanks so much for doing this.
APPENDIX D

EXPERIMENT SCHEDULE

SEPTEMBER

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The students graduated from the Institute on December 16, 1983, and the final posttest was given three months later, on March 9, 1984. During two months of this time the students had been attending classes at North Texas State University, but they had not received any special vocabulary treatment for almost four months because treatment for both the experimental and control groups stopped on November 11, 1983.
APPENDIX E

PRETEST/POSTTEST 1 (T1/T2)

Vocabulary

Read the following sentences. There are four words given after each sentence. Select the word or words that would best fit in the blank and circle the letter.

1. Mr. Thomas _________ my father to buy a new television set.
   a. induced  b. devised  c. jeopardized  d. denoted

2. Larry Martin is a close business _________ of my father. They work in the same department.
   a. statement  b. associate  c. risk  d. process

3. Only a/an _________ person would go into a pit full of snakes.
   a. intelligent  b. glaring  c. valid  d. insane

4. When the Dallas Cowboys play at the coliseum, there are always _________ crowds.
   a. gigantic  b. innocuous  c. perplexed  d. frightened

5. Dr. Randolph is a very _________ professor in class. He expects his students to follow the rules to the letter.
   a. harmless  b. perplexed  c. apparent  d. stern

6. I am so terribly _________ of spiders that I faint when I see one.
   a. innocent  b. deceived  c. frightened  d. secured

7. The smudged fingerprints on the windowsill _________ how the thieves entered the house.
   a. indicated  b. devised  c. incited  d. procured

8. Due to the difficulty of the situation, the chairman had _________ that it would take a long time for the committee to come to an agreement.
   a. baffled  b. contorted  c. speculated  d. managed

9. Accidents on Interstate 35 are _________ occurrences every day.
   a. harmless  b. ingenious  c. commonplace  d. trifling

10. If no one disagrees, then we are in _________.
    a. suspicion  b. concordance  c. hesitation  d. every day
11. Even though he was afraid for a moment, it was a _______ emotion and he was soon calm again.
   a. various    b. fleeting    c. clever    d. jeopardized

12. They have made so many _______ to the original plan that it is hardly recognizable.
   a. qualms   b. unities   c. modifications   d. congruences

13. It is very difficult to make the right _______ when there are so many good books to choose from.
   a. selection   b. importance   c. procedure   d. peril

14. I believe that you put just a/an _______ too much vinegar in the salad. It tastes a little tart.
   a. merely   b. intense   c. immense   d. trifle

15. That is a _______ amount of money to pay for such a small piece of land.
   a. denoted   b. clear   c. harmless   d. sizable

16. Are you certain that the painting is _______, and not a fake?
   a. customary   b. conspicuous   c. authentic   d. vast

17. There is always great _______ involved when men try to climb a mountain like Mt. Everest.
   a. peril   b. shade   c. process   d. option

18. He had quite a few _______ about entering the contest so unprepared, but he did anyway.
   a. particles   b. statements   c. processes   d. qualms

19. Mary was very _______ at the party in her jeans and tank top since everyone else was wearing formal clothing.
   a. puzzling   b. conspicuous   c. ingenious   d. harmless

20. Linda was quite _______ by the disappearance of her purse from her locked office.
   a. managing   b. intelligent   c. distinct   d. baffled

21. He thought it was a very _______ idea to use string and nails, since there were no curtain rods in the new apartment.
   a. ingenious   b. grave   c. perplexing   d. clarifying

22. The answer was quite _______ to everyone except Amelia, who couldn't see it at all.
   a. innocuous   b. bewildering   c. clear   d. vast

23. The club house was rented _______ for the use of the Oak Ridge Garden Club and their guests.
   a. exclusively   b. exceedingly   c. severely   d. deceivingly
24. The governor emphatically _____ that he would lower property taxes in 1983.
   a. devised  b. stated  c. obtained  d. frightened

25. Anyone could see by the _____ expression on the wounded soldier's face that he was in extreme pain.
   a. contorted  b. deceptive  c. intelligent  d. important

26. Why do you think that he _____ Mr. Johnson from all the others for criticism?
   a. accounted for  b. contrived  c. singled out  d. governed

27. It was obviously a case of _____ when the product could not do what the sponsors claimed that it could do.
   a. associate  b. misrepresentation  c. selection  d. lunatic

28. It is difficult to _____ a person _____ something if he really does not want to do it.
   a. look/up  b. account/for  c. talk/into  d. shed/light

29. Tom has been trying to _____ a copy of Shelley's sonnets for several months now.
   a. obtain  b. assert  c. speculate  d. contrive

30. Sometimes it is not easy to know what is the best _____ to accomplish something.
   a. way  b. unity  c. contortion  d. innocence

31. I am sure that my explanation will _____ the mystery for you.
   a. bring about  b. deceive  c. contort  d. clear up

32. The robbers _____ a clever scheme for entering the bank at night.
   a. devised  b. frightened  c. talked into  d. reckoned

33. How could anyone imagine that the _____-looking plain white envelope contained a letter bomb?
   a. innocuous  b. jeopardized  c. trifle  d. vast

34. Scientists must know how to _____ their microscopes.
   a. bewilder  b. frighten  c. manipulate  d. elucidate

35. Linda made a/an _____ important decision when she changed jobs.
   a. maniacally  b. extremely  c. vastly  d. elected

36. The president must make _____ decisions, many of which seriously affect the United States and other countries as well.
   a. glaring  b. grave  c. bent  d. maniacal
37. Thomas was an extremely _______ worker before he fell ill. He worked harder than two men.
   a. impoverished  b. industrious  c. copious  d. out of the way

38. There are many _______ in our universe besides our own Earth.
   a. dealings  b. merits  c. obstacles  d. planets

39. There is little _______ in working for no money.
   a. benefit  b. paradox  c. ruin  d. toll

40. I was so _______ that Sally remembered to bring everything that I asked her to. She usually forgets at least one thing.
   a. amazed  b. hindered  c. restored  d. renounced

41. Mr. Wilson is a very _______ man. He owns two homes and three cars.
   a. deceptive  b. secluded  c. prosperous  d. perplexing

42. He had to _______ the position of president because of his poor health.
   a. beset  b. decline  c. hamper  d. allot

43. Michael is a very _______ person with his hands. He can fix anything.
   a. wealthy  b. profuse  c. dextrous  d. destitute

44. Mr. Murphy was an excellent _______. He owned three stores.
   a. colonist  b. product  c. commerce  d. merchant

45. The judge had a reputation for _______ out severe punishment to thieves.
   a. bartering  b. meting  c. imposing  d. fixing

46. Trying to raise eleven children without a father was a _______ for Linda.
   a. disruption  b. welfare  c. hardship  d. portion

47. It is very difficult to _______ in the desert without water.
   a. concur  b. survive  c. bear in mind  d. restore

48. It is being _______ if one does not tell the truth.
   a. deceitful  b. bountiful  c. solitary  d. versatile

49. Her poor listening comprehension _______ her when she tried to speak with Americans.
   a. endured  b. stunned  c. hampered  d. regressed

50. Please try to _______ your strength until you are completely over your illness.
   a. conserve  b. ponder  c. retard  d. amaze
51. The man was very ________ when he discovered that someone had let out all the air in his car tires.
   a. abundant  b. perturbed  c. diligent  d. misleading

52. He carefully ________ the advantages and disadvantages of the situation for a long time before he reached a decision.
   a. endured  b. renovated  c. concurred  d. weighed

53. The early American ________ had a difficult time when they first traveled to the west coast in covered wagons.
   a. settlers  b. paradoxes  c. orbs  b. boundaries

54. There was a rather lengthy ________ in the conversation when Paul forgot what he wanted to say.
   a. merit  b. gap  c. toil  d. produce

55. The already sensitive political situation in a Central American country is ________ rapidly because of repeated attacks by guerilla soldiers.
   a. deteriorating  b. concurring  c. bordering  d. impeding

56. The merchant has more ________ than he can sell right now because his suppliers sent him too much merchandise.
   a. goods  b. labor  c. proportions  d. orbs

57. He wants to ________ that old abandoned barn near the lake and move into it.
   a. beset  b. uphold  c. renovate  d. persevere

58. It was only through back-breaking ________ that he was able to clear his farmland before the rains came.
   a. proportions  b. efforts  c. dealings  d. obstacles

59. The teacher finally ________ to the demands of her students for less homework on the weekends.
   a. distributed  b. acquiesced  c. befell  d. impelled

60. The government's new ________ did not allow enough money to complete the project in two years as promised.
   a. appropriation  b. obstruction  c. burden  d. ravage

61. The people were very happy with the recent ________ that was taking place in their country.
   a. hardship  b. prosperity  c. perplexity  d. disruption

62. He finally ________ the students' papers, after making them wait for two weeks.
   a. conserved  b. distributed  c. startled  d. ruined
63. During normal business _________ both parties try to have the advantage.
   a. demolition  b. affluence  c. dealings  d. resources

64. Please don't be a/an _________ to my plans. The projects must be finished in a month.
   a. effort  b. obstacle  c. privation  d. benefit

65. The Marshes live in a very _________ area in the Colorado mountains far away from civilization and modern conveniences.
   a. secluded  b. misleading  c. abundant  d. renovated

66. He was absolutely _________ when I met him. He did not even have enough money to buy a cup of coffee.
   a. deceitful  b. industrious  c. affluent  d. destitute

67. I am not exactly sure at what time the eclipse of the moon will _________.
   a. persevere  b. occur  c. amaze  d. refuse

68. It is very difficult to keep the cattle within those _________ because there are no fences to prevent them from wandering off.
   a. confines  b. merits  c. burdens  d. obstacles

69. It is indeed a _________ that I cannot understand or explain. I have no idea why he behaves in that manner sometimes.
   a. resource  b. perplexity  c. sphere  d. benefit

70. The enemy troops _________ the city after they conquered it. They burned every house and public building.
   a. renovated  b. demolished  c. endured  d. preserved

71. Whenever you go to Linda's house there is always _________ food for everyone. She loves to cook large meals.
   a. adroit  b. diligent  c. ample  d. needy

72. Presently there is a/an _________ of both foreign and domestic cars on the market because people do not want to spend their money.
   a. interval  b. glut  c. merit  d. border
The following passage has words underlined. Read the passage carefully. Study the list below and place the number of the word that is closest in meaning under the underlined word.

Frankenstein

The story Dr. Frankenstein is not a real one, but it is one that has been popular for many years and is a story that still frightens children and adults alike.

Dr. Frankenstein was a very intelligent scientist whose main objective in life was to devise a way to create a living creature from non-living matter. He simply planned to invent a harmless being he could direct to do things that required more strength than a normal man. Therefore his creature was gigantic, much larger than an ordinary man. Unfortunately, it was also extremely ugly, and people were very frightened when they saw it. The main problem with the monster was, however, that Frankenstein could not control it. When the creature killed Frankenstein's lab partner, it was obvious to Frankenstein that he had made a grave mistake. Frankenstein tried to talk himself into believing that he could operate on the creature and make some modifications that would prevent the monster from hurting people. He was wrong. He had managed to obtain his goal, but it was a nightmare. Finally, the people who lived near Frankenstein attacked his house and laboratory because they were terrified and felt that their lives were in constant peril. Frankenstein and his monster were both killed when the people set fire to the house. Thus ends the story of Frankenstein.

Do you think this could happen?
Read the following passage and fill in the blanks with the words below. Use only one word one time. You do not have to change any word forms. Use the words as written.

Mr. Charles Miller was the most successful ________ in Brookridge. There were many reasons for his great success. First of all, he was an extremely ________ worker. In fact, he was in his office at least twelve hours every day six to seven days a week. Because of his devotion to his business, he had to ________ any meaningful personal life. Therefore, he never married. Marriage would have been a/an ________ to him, and he never allowed anything to interrupt him when he was involved in a business deal. As a matter of fact, he never let anything ________ him. There was no ________ too big that he could not overcome. No matter what ________ he could always handle the situation so that it was to his ________. His determination ________ many of his competitors. Never before had they dealt with such a man. He knew how to ________ extremely well. He was always the winner in a business deal. He was also concerned about his stockholders. He knew that if their ________ were good, they would always support him even if they did not agree with his methods. It is true that sometimes his business practices were on the ________ of the law, but he never actually broke any laws. However, his financial practices were somewhat ________.
drove himself began to affect his health. Finally, the doctor told him that his condition would only ________ unless he slowed down some. The doctor suggested a vacation.

What do you think Mr. Miller did?

decisive
industrious
renounce
exist

shares
astounded
worsen
isolated

merchant
barter
occurred
burdens

obstacle
edge
hinder

benefit
disruption
commodity
APPENDIX F

POSTTEST 2 (T3)

Level 5

Name ______________________

Section ___________________

Vocabulary

Read the following sentences. There are four words given after each sentence. Select the word or words that would best fit in the blank and circle the letter of the word.

1. Tom could see the ________ on Sam's face when he saw the car heading for the bridge out of control.
   a. humor  b. horror  c. benevolence  d. inherence

2. Her ________ was contagious. Everyone started to laugh at her amusing actions.
   a. anger  b. fear  c. hilarity  d. barbarity

3. His business affairs were so ________ that even two accountants couldn't straighten them out.
   a. absolute  b. labeled  c. esteemed  d. entangled

4. He was full of ________ when he saw how the vandals had destroyed his garden. He wanted to call the police, but his wife wouldn't let him.
   a. wrath  b. cognition  c. reverence  d. jocularity

5. No one in the class knew the ________ answer to the question because it was so complex and ambiguous.
   a. exact  b. incalculable  c. spiteful  d. persistent

6. The print on the ditto was so ________ that the teacher couldn't read it.
   a. infinite  b. blurry  c. prevalent  d. precise

7. Some young people do not have much ________ for their elders. They treat them rudely and carelessly.
   a. inspiration  b. ground  c. quality  d. regard
8. He was so tired that he had no ______ of the danger that was involved in the experiment.
   a. stimulus  b. awareness  c. delusion  d. ground

9. Poke's latest book is _______ "How to be Successful Without Trying."
   a. involved  b. disguised  c. allayed  d. entitled.

10. Mr. Morton tried to ______ his identity, but his boss recognized him in spite of the thick glasses and the fake moustache.
    a. utilize  b. sort  c. disguise  d. drive

11. There are ______ ways to cheat the IRS, but most people don't even try.
    a. amorphous  b. countless  c. difficult  d. belligerent

12. The doctor gave him a strong pain killer to ______ the pain in his back.
    a. alleviate  b. apply  c. wield  d. symbolize

13. I am very sorry that I didn't call you to tell you that I would be late. I did not mean to cause you any ______.
    a. mirth  b. incentive  c. deference  d. uneasiness

14. The commander didn't want to ______ his troops in full force, but he had to do so when the enemy attacked his position.
    a. cover up  b. entitle  c. employ  d. catalogue

15. The people could not understand the leader's ______ for his cowardly action.
    a. rationale  b. mirage  c. fantasy  d. attribute

16. People who are overweight usually have a ______ for sweet things like candy and cake.
    a. jocularity  b. resentment  c. propensity  d. dread

17. I really don't know how I can ______ him from going if he really wants to.
    a. run into  b. prevent  c. encounter  d. embody

18. Larry was very ______ about being laid off from his job when I saw him last night. He was pacing the floor and shouting.
    a. bitter  b. pervasive  c. eternal  d. reverent

19. She is trying to ______ the cause of ERA by giving lectures and appearing on television. She really believes in its ideals.
    a. halt  b. further  c. disregard  d. camouflage
20. The last dictator tried to _________ freedom of expression in his country by imprisoning anyone who disagreed publicly with his policies.
   a. suppress  b. rank  c. apply  d. expedite

21. Will you please help me _________ these books in alphabetical order?
   a. leave out  b. cease  c. catalogue  d. run into

22. Families owning more than one car is _________ in the United States. Some families have three or four.
   a. amorphous  b. solicitous  c. prevalent  d. elaborate

23. Even after he lost all of his money and possessions, he tried to maintain the _________ that he was rich.
   a. delusion  b. horror  c. animosity  d. dread

24. A reward system can be a very good _________ for improved performance in the classroom.
   a. inhumanity  b. label  c. stimulus  d. levity

25. Mary was sure that her father _________ all the best qualities of a father. In her eyes he was almost perfect.
   a. precluded  b. exemplified  c. overlooked  d. restrained

26. I am truly sorry. I did not mean to _________ you from the party. I thought you were going to be out of town.
   a. come across  b. depict  c. assist  d. exclude

27. His _________ complaining all the time finally got on his friends' nerves and they stopped inviting him to their houses.
   a. mirthful  b. persistent  c. restricted  d. solicitous

28. Guess who I _________ at the grocery store last night? I haven't seen John and Mary Thornton for three months.
   a. allayed  b. embodied  c. battled  d. encountered

29. This very basic principle is _________ to the understanding of Tom's theory.
   a. intricate  b. rife  c. fundamental  d. vague

30. Grading research papers takes a long time to do and is a very _________ job.
   a. laborious  b. numberless  c. hostile  d. benevolent

31. Michael does many nice things for people. He is a very _________ person.
   a. unequivocal  b. considerate  c. obscure  d. complex
32. One of Janet's nicest ________ is that she is so polite and kind to everyone.
   a. conflicts  b. esteems  c. wraths  d. traits

33. It was very difficult to stand by and ignore our neighbor's ________ towards his children. He used to spank them at least once a day even if they didn't do anything wrong.
   a. brutality  b. deference  c. jocularity  d. context

34. It is very important to have a proper ________ for studying.
   a. animosity  b. achievement  c. illusion  d. surrounding

35. The ________ was over soon after it started because the guerillas captured the city and took over the government in three hours.
   a. hilarity  b. rationale  c. conflict  d. motive

36. Linda has many ________ besides being an excellent student and singer. She can also play the guitar and is a semi-professional tennis player.
   a. savageries  b. accomplishments  c. apprehensions  d. levities

37. It is extremely ________ that you take this course first because it is a prerequisite for Biology 208.
   a. vital  b. frivolous  c. plumb  d. debatable

38. By taking chemotherapy treatments for the tumor, Mr. Wilkins can ________ his life by at least two years.
   a. posit  d. dilate  c. extend  d. vary

39. Do you know if snakes ________ all winter like bears?
   a. draw out  b. swell  c. hibernate  d. promulgate

40. This method of analyzing data is still ________ because it has only been used for a few months and people are not sure it is completely reliable.
   a. feasible  b. disputable  c. crucial  d. commensurate

41. Larry tried to ________ the creek in his jeep, but he got stuck in the middle.
   a. modify  b. ford  c. foster  d. prolong

42. Have you heard what the ________ of the largest newspaper firing in the northeast are going to be? I heard 1,000 people will lose jobs.
   a. consequences  b. whereabouts  c. edibles  d. gadgets

43. Do you know yet how much work and time it is going to ________ to get the car back in working order?
   a. shrink  b. ape  c. adhere  d. entail
44. Lidia didn’t have any brothers and sisters. She was the only ________ that her parents had.
   a. novice   b. precursor   c. offspring   d. advent

45. He ________ that the story was true without checking to see if his informant was reliable.
   a. promulgated   b. drew out   c. presupposed   d. fastened

46. He was sleeping on the bench in a/an ________ position when the policer found him.
   a. major   b. equivocal   c. feasible   d. vertical

47. Women’s liberation is demanding pay raises ________ to those received by men. Right now women don’t feel they are getting their share.
   a. corresponding   b. elongated   c. intersected   d. equivocal

48. Do you know where your ________ originally came from? Mine came from France.
   a. comestibles   b. ancestors   c. fledglings   d. neophytes

49. The babysitter ________ Mrs. Wilson’s children when she went on vacation with her husband last summer.
   a. included   b. became smaller to   c. attended do   d. was comprised of

50. Johnny works ________ with his father in their machine shop.
   a. open to question   b. side by side   c. in the long run   d. dozing

51. The ________ of women’s rights commenced about fifteen years ago.
   a. size   b. niche   c. rise   d. tot

52. The baby monkey ________ to his mother and would not let go.
   a. clung   b. emulated   c. swelled   d. promulgated

53. I think that you need a long period of ________ before you make a final decision. You need to think about it awhile.
   a. fruition   b. migration   c. contemplation   d. advent

54. Children learn certain behaviors by ________ their parents’ actions.
   a. joining   b. decreasing   c. mimicking   d. nursing

55. Increased blood pressure is a/an ________ reaction to fear.
   a. contemplative   b. unimportant   c. spontaneous   d. plumb

56. The ________ of the American Indian is not known. Some anthropologists think he came from Russia; others are not sure.
   a. slumber   b. outcome   c. origin   d. device
57. Chinese _______ is very good, but some people prefer food from other countries more.
   a. volume   b. snooze   c. cogitation   d. cuisine

58. Every semester, the paperwork _______ so that teachers don't have as much time for class preparation.
   a. enlarges   b. encourages   c. dwindles   d. traverses

59. I want everyone to _______ hands and form a large circle.
   a. transform   b. link   c. foster   d. emulate

60. Did you see the moon tonight? It is _______. It was a full moon two nights ago.
   a. coupling   b. sticking   c. reposing   d. waning

61. I have a hammer, pliers, screwdrivers, and a saw, but I don't have the right _______ you need to lift the engine out of the car.
   a. stature   b. peer   c. apparatus   d. precursor

62. Her donation of $10,000 will help _______ the cause of higher education for underprivileged children.
   a. abate   b. imitate   c. presume   d. foster

63. I'm not sure I can _______ the plans for the party now. Everyone has been notified that it will begin at 8:00.
   a. subsume   b. assume   c. mimic   d. alter

64. He found many _______ of paper on the floor where his daughter had been cutting paper dolls.
   a. scraps   b. appliances   c. edibles   d. amateurs

65. The earthquake struck with such _______ that the entire village was destroyed.
   a. triviality   b. conception   c. nourishment   d. magnitude

66. I am not sure where the new missile _______ will be. I think it is going to be near Houston.
   a. speck   b. site   c. fear   d. edible

67. The _______ of the sand in the desert during a sandstorm is a fascinating sight to see.
   a. repose   b. shifting   c. reflection   d. sliver

68. He isn't a full-fledged carpenter yet. He is still just a/an _______.
   a. apprentice   b. offspring   c. predecessor   d. advent

69. It is _______ that Maira will one day be a concert violinist if she continues to practice eight hours a day.
   a. superficial   b. conceivable   c. involuntary   d. Lastly
70. _______ it will be to your advantage to study very hard now.
   a. Utterly     b. Vertically     c. Superficially     d. In the long run

71. He _______ forgot that he had a class tonight.
   a. entirely     b. potentially     c. intuitively     d. debatably

72. It was a _______ thing to get so upset about. It really wasn't
   anything major.
   a. likely     b. petty     c. potential     d. varying

The following passage has words underlined. Read the passage carefully.
Study the list below and place the number of the word that is closest
in meaning under the underlined word.

What Is Possible?

Some people believe that anything is feasible; others believe that
some things are thoroughly impossible. Who is right? That is a ques-
tion that is very controversial. One thing is certain. If a person
assumes that something is possible, it is often very difficult to con-
vince him to change his mind. Some persons like to grasp an idea and
not let it go. It takes a great deal of cogitation for some people to
change their minds. It is obvious to anyone who really thinks about
it that some things we want to be possible are not really desirable to
have. These types of things would encompass such things that would be
harmful for others or ourselves. The effect of making some things
possible could transform a person if he is not careful, maybe into a
person he would not want to be. Therefore, one must be careful to try
to encourage the beneficial things for man. These things can be pos-
sible if man works in conjunction with other men. If men merge their
constructive ideas, almost anything is possible. Man must attend to
others first. If it is meant to be, man will eventually be able to
determine what is possible to achieve.
Drug Abuse

Drug abuse is a major medical and social problem in many countries today. In the United States it has been the cause of great _______ for parents, relatives, and friends of drug abusers. Even though there are strict laws which _______ the use and sale of drugs, except through authorized sources for medical purposes, illegal drug usage and sales are _______ throughout the country. Since it is a problem which is found mainly among teenagers, it is the parents who are most concerned with trying to _______ its spread. These parents come from many different _______, but _______ and _______ are uniting factors which bring them together to _______ their common enemy, drugs. It is a terrible thing for parents _______, but unfortunately it is a reality in today's society. To combat this problem, parent organizations have sprung up all over the country to _______ parents and children under the influence of drugs. These groups usually _______ with the school systems and social groups. Information is given to parents and teachers to enable them to recognize the symptoms of drug-taking and the kind of behavior that _______ drug users. Much progress has been made in this area, but it is not an
easy _______. There is still a tremendous amount of work to be done, and parents and concerned persons must keep up the ________ that has been started.

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APPENDIX G

POSTTEST 3 (T4)

Level 5

Vocabulary

Read the following sentences. There are four words given after each sentence. Select the word or words that would best fit in the blank and circle the letter of the word.

1. The professor's _______ thought very highly of him within the department.
   a. colonists  b. associates  c. merchants  d. laymen

2. It _______ Jane greatly that Tom didn't even bother to call her and tell her that he was not going to come.
   a. conserved  b. acquiesced  c. weighed  d. distressed

3. She told everyone that the dinner was going to be very _______ and expensive. She was having lobster flown in from Maine.
   a. inherent  b. tough  c. elaborate  d. considerate

4. The _______ of getting caught cheating are not worth the risk.
   a. particles  b. volumes  c. consequences  d. whereabouts

5. She was _______ by the sudden change of attitude in her boyfriend. He was so distant and cold now.
   a. bewildered  b. abated  c. disfigured  d. cleared up

6. The government is going to have to ask for a special _______ to repair the roof of the White House.
   a. intercourse  b. appropriation  c. disruption  d. paradox

7. Matt has a _______ to be rude when he is upset about something.
   a. tendency  b. fear  c. hilarity  d. deference

8. Lydia's _______ for advancement was good, but she needed more experience before her boss would consider her for a higher position.
   a. magnitude  b. predecessor  c. scrap  d. potential
9. Maureen doesn't like just one of anything. She likes _______ in everything.
   a. unanimity  b. jeopardy  c. diversity  d. fleeting

10. She is a very _______ person. She lives out in the country by herself; she only goes to town once a month, and she doesn't like visitors.
    a. profuse  b. assiduous  c. adroit  d. reclusive

11. My first _______ was to laugh when he slid off his chair, but when I saw how embarrassed he was, I changed my mind.
    a. impulse  b. origin  c. upshot  d. conflict

12. Larry wants to _______ the house by adding another bedroom.
    a. presuppose  b. foster  c. expand  d. fasten

13. He _______ our offer to join our organization because he has too much to do at this time.
    a. induced  b. declined  c. attained  d. hindered

14. Linda was standing on the _______ of the cliff when the earthquake occurred.
    a. hindrance  b. plumb  c. edge  d. welfare

15. Mr. and Mrs. Johnson are extremely _______ people. They are always helping other people.
    a. solicitous  b. equivocal  c. perpetual  d. tough

16. The _______ that they chose to build their summer home is beautiful. It is on a hill and overlooks the lake.
    a. advent  b. effect  c. site  d. motion

17. Please! Take that snake outside. It _______ me.
    a. barters  b. devises  c. perseveres  d. frightens

18. Right now our country is enjoying more _______ than it has for awhile because our economy is more stable for the moment.
    a. disruptions  b. obstacles  c. prosperity  d. gadgets

19. When the explosion went off, she screamed out in _______.
    a. hilarity  b. quality  c. propensity  d. terror

20. They tried to _______ the gorge by making a rope bridge across it, but they failed.
    a. span  b. subsume  c. alter  d. curb

21. I tried to _______ to you which chapter I thought you would find most useful for your paper. Couldn't you find it in the library?
    a. incite  b. manipulate  c. indicate  d. impede
22. Leave him alone. He doesn't like to be _______ when he is studying.
   a. asserted to  b. harassed  c. sustained  d. upheld

23. I _______ an old friend of mine the other day that I hadn't seen for five years.
   a. typified  b. ran into  c. furthered  d. exemplified

24. We will not be able to achieve our goals until we have _______ among ourselves.
   a. unity  b. peril  c. uncertainty  d. demolition

25. There is a/an _______ supply of walnuts this year. I can make a lot of fudge with nuts.
   a. inventive  b. abundant  c. fraudulent  d. secluded

26. The rumor was _______ that Lois was going to move. I heard it from many people.
   a. elaborate  b. widespread  c. unclear  d. twisted

27. You and your friend are going to need some _______ if you are planning to stay out in the woods all day.
   a. consequence  b. magnitude  c. sustenance  d. cogitation

28. He is trying to _______ money so he can go to the university in the spring.
   a. assert  b. secure  c. hinder  d. assent

29. We try to _______ energy in the house by turning off the lights when we are not in the room.
   a. conserve  b. deteriorate  c. renounce  d. hinder

30. _______ my hand and I'll pull you up.

31. I don't see how she can _______ a school and run a business besides. She must have a lot of energy.
   a. point to  b. contort  c. direct  d. state

32. Mr. Martin, who is a very kind man, is always thinking about the _______ of his family.
   a. obstacle  b. overage  c. welfare  d. ruin

33. He put the top in _______ by spinning it with his hand.
   a. motion  b. conflict  c. reflex  d. setting

34. Her beautiful blonde hair was her most _______ feature.
   a. deceptive  b. prominent  c. ordinary  d. innocuous
35. I was ________ when Linda told me that she had quit her job without giving any advance notice.
   a. affluent  b. astounded  c. fraudulent  d. dextrous

36. Mary and John were sitting in the classroom ________ near the door.
   a. on a par with  b. taking for granted  c. side by side  d. spontaneously

37. Michael told us that it was extremely ________ that we all be there at exactly ten o'clock sharp.
   a. immense  b. important  c. conspicuous  d. abundant

38. Did you hear that Judge Stone is now ________? He lost all his money on the stock market.
   a. deceitful  b. copious  c. prosperous  d. penniless

39. His ________ are very fast. He caught the bowl before it even got near the floor.
   a. offsprings  b. reflexes  c. utensils  d. grounds

40. I really think that his story was a ________ of what really happened. Everyone else I have talked to says the accident didn't happen that way.
   a. process  b. concordance  c. determination  d. misrepresentation

41. The situation in the Middle East is still continuing to ________. It is not good at all.
   a. deteriorate  b. hamper  c. assent  d. presuppose

42. It is ________ out of the question to leave at 4:00 am. The sun isn't even up until 6:00.
   a. eventually  b. vertically  c. utterly  d. originally

43. There appears to be some big ________ in his logic, but he is so sure of himself, he won't admit that he might be wrong.
   a. share  b. gap  c. orb  d. toil

44. You are going to put your life into extreme ________ if you try to swim across the lake alone.
   a. fabrication  b. procedure  c. hesitation  d. jeopardy

45. I felt so ________ when I arrived at dinner dressed in a long dress and everyone else was dressed casually.
   a. customary  b. clear  c. innocent  d. conspicuous

46. A ________ is a person who goes from house to house selling his goods.
   a. colonist  b. peddler  c. colleague  d. maniac
47. Bill ________ that Mary was going to go to the dance with him, so he didn't ask her. He was surprised when he found out she wasn't.
   a. drew out    b. took it for granted    c. misrepresented    d. stated

48. Michael has just inherited a ________ amount of money from his uncle who recently died.
   a. severe    b. true    c. sizable    d. deceitful

49. A/an ________ is a person who learns his skill from an expert in the field he wants to learn.
   a. apprentice    b. co-worker    c. ancestor    d. settler

50. The Chinese vase was definitely ________ even though they had thought it was a copy until they took it to the museum.
   a. ordinary    b. authentic    c. glaring    d. affluent

51. Do you have any idea what ________ here late last night?
   a. assented    b. occurred    c. renovated    d. sustained

52. An axe is a ________ for chopping wood.
   a. crumb    b. onset    c. plumb    d. utensil

53. It is really going to cost a lot of money to ________ that house so that you can live in it.
   a. befall    b. weigh    c. restore    d. surmise

54. The government and the airline company refused to ________ to the hijacker's demands.
   a. reject    b. acquiesce    c. benefit    d. fluctuate

55. She was ________ upset when she saw the mess that her children had made in the living room with mud and clay. She wanted to cry.
   a. merely    b. thoroughly    c. humorously    d. a trifle

56. Mrs. Thomas said that she was going to sell all the ________ that was in the store because she wanted to quit working and travel.
   a. settlers    b. appropriations    c. merchandise    d. hindrance

57. The storm finally ________ after about four hours and then the sun came out.
   a. linked    b. abated    c. barred    d. merged

58. The teenage hoodlums ________ the house. They broke all the windows and tore up the floors.
   a. astonished    b. ravaged    c. perturbed    d. sustained

59. For many people, love is considered to be ________, never ending.
   a. perpetual    b. obscure    c. hostile    d. unequivocal
60. He was very ________ when he realized that he had lost his chance
to go to Europe.
a. bitter b. solicitous c. hilarious d. blurry

61. He really didn't see the forest. It was only a ________.
a. ground b. mirage c. battle d. tendency

62. Marston ________ his latest book "How to Feel Foolish and Love
It."
a. disguised b. allayed c. involved d. entitled

63. Betty's love life was so ________, she didn't know who she liked.
a. absolute b. esteemed c. entangled d. benevolent

64. She tried to ________ him from dropping out of graduate school, but
she couldn't.
a. disregard b. encounter c. prevent d. wield

65. She tried to ________ all the new tapes that came in, but she
couldn't find the invoice.
a. catalog b. embody c. allay d. dilate

66. His methods of discipline are ________. Some parents think that
he is much too hard on the students.
a. feasible b. crucial c. disputable d. frivolous

67. Janet's ________ are many. She is an excellent seamstress, cook,
and psychiatrist.
a. levities b. esteems c. jocularities d. accomplishments

68. Cats usually don't have over four or five ________ in their first
litter.
a. offspring b. novice c. apprentice d. laymen

69. ________ in the world is one fact that needs to be fought, not
with weapons, but with peace.

70. Monkeys are great ________. They like to watch humans and do
what they do.
a. precursors b. neophytes c. mimickers d. lunatics

71. The ________ of oil prices is something that we have to fear from
time to time depending on the supply available.
a. migration b. rise c. peer d. triviality

72. He tried to ________ her entrance into the university by sending
a letter of recommendation to the head of her department.
a. facilitate b. wane c. subsume d. disregard
The following passage has words underlined. Read the passage carefully. Study the list below and place the number of the word that is closest in meaning under the underlined word.

**Marriage**

The institution of marriage is one of the most important ones in a society. The dictionary defines marriage as "the union of a man and a woman by a ceremony in law." In many religions, it is considered to be the highest state that a man and woman can enter into. One thing is extremely clear. Marriage is a very important step to take in one's life, if not the most important, and should not be entered into lightly. Both parties should spend a great deal of time in contemplation before pledging themselves to one another for the rest of their lives.

Before marriage, both individuals involved should carefully consider the strong and weak qualities of the other. Both should be aware that marriage entails an immense amount of responsibility for both persons.

After marriage the couple may encounter hardships which they had not anticipated. They may be amazed to discover flaws or annoying habits that were hidden before marriage. Even petty things can cause conflicts between a couple. Therefore, it is imperative for the success and happiness of the marriage for both to realize that neither one is perfect and each will have to accept the imperfections of the other. If they both hold each other in high regard and understand that it is his and her duty to love, cherish, and attend to the needs of the other always, the marriage will persevere through any obstacles that they might face in their life together, and both will attain happiness.
Read the following passage and fill in the blanks with the words below. Use only one word one time. You do not have to change any word forms or tenses. Use the words as written.

The Mountain Man

Jebadiah Coames lived in the back hills of West Virginia. No one knows exactly where he came from, but it is generally thought that his came from Scotland centuries ago. No one knows much about Jebadiah except that he lives with a bear cub and a mountain lion. The of his cabin is difficult to reach by car. To get there one has to a creek and climb a small mountain. He has lived in the mountains for more than twenty years alone. But he doesn't appear to be lonesome. He has his animals to, and he hunts and fishes and finds his own to stay alive. All and all, he seems content. Sometimes he will find a and take him under his care for awhile. He knows all the habits of the animals and can tell you exactly when the bear will for the winter, and he can any bird in the forest. His kind of life might be for some who like their comforts, but if you want to learn about nature, go find ole Jeb. He'll be glad to show you his homemade he uses for food and for gardening. But he won't want you to stay too long because he likes to spend a lot of time in by himself. Then, if you see him sitting in the
forest against the trees, he seems to _______ into part of the forest itself. After all, Jeb is part of the forest.

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APPENDIX H

POSTTEST 4 (T5)

VOCABULARY QUIZ

I. Circle the best related word for each sentence below.

1. Tom had a **critical** problem to solve.
   a. crazy  b. safe  c. serious  d. massive

2. He was very **puzzled** by her reaction.
   a. crazy  b. mystified  c. scared  d. twisted

3. Do you know how to **operate** this machine?
   a. invent  b. show  c. explain  d. control

4. The result was very **striking** to everyone.
   a. short-lived  b. real  c. serious  d. observable

5. How is he going to **effect** the change?
   a. control  b. declare  c. cause  d. guess

6. She received a **substantial** sum of money from her father every month.
   a. real  b. hard  c. large  d. usual

7. There is a **risk** involved in this undertaking.
   a. lie  b. danger  c. doubt  d. change

8. He definitely had a **valid** reason for leaving.
   a. real  b. safe  c. crazy  d. serious

9. The work he had to do was very **rigorous**.
   a. twisted  b. safe  c. obvious  d. hard

10. He had several **misgivings** when he talked to her.
    a. methods  b. changes  c. doubts  d. choices

11. He was not a very **shrewd** businessman.
    a. smart  b. serious  c. safe  d. usual

12. He tried to **coax** her to go with him.
    a. mystify  b. persuade  c. scare  d. twist
13. His maniacal ideas got him into a lot of trouble.
   a. serious  b. crazy  c. smart  d. obvious

14. There are only about 1,000 residents in the town.
   a. co-workers  b. people  c. sellers  d. products

15. The boundary between the countries has been monitored for two years.
   a. wealth  b. geographical limit  c. problem  d. destruction

16. He found it difficult to survive in the mountains in the winter.
   a. live  b. get  c. persuade  d. control

17. He pondered the problem very carefully.
   a. thought about  b. kept  c. said no to  d. controlled

18. Mr. Johnson was a very well-to-do businessman.
   a. skillful  b. hard-working  c. wealthy  d. lonely

19. She was a very versatile actress.
   a. lonely  b. poor  c. skillful  d. wealthy

20. The policeman dispersed the crowd in front of the bank after the robbery.
   a. divided  b. traded  c. kept  d. surprised

21. Mr. Bradley bought his son a small model of this planet for his desk.
   a. product  b. world  c. piece  d. wealth

22. The government is going to levy higher taxes on imported goods.
   a. force  b. delay  c. divide  d. think about

23. Maintaining a B+ average in the university requires a lot of exertion.
   a. people  b. wealth  c. work  d. co-workers

24. She faced many adversities when she got her first job.
   a. mysteries  b. difficulties  c. interruptions  d. people

25. When I met him, he was destitute.
   a. poor  b. good  c. false  d. lonely

26. Building a computer is a very intricate process.
   a. unclear  b. complicated  c. unending  d. common

27. The manager was vague about plans to remodel the apartments.
   a. basic  b. angry  c. unclear  d. kind

28. The soldiers took all day to camouflage the truck.
   a. use  b. hide  c. push  d. meet
29. He shook with mirth when he saw his son's new shoes.
   a. laughter  b. fright  c. anger  d. worry

30. He received several awards for his exploit in Africa.
   a. action  b. cruelty  c. fright  d. respect

31. The anxiety he felt about his daughter's disappearance was visible on his face.
   a. anger  b. cruelty  c. reason  d. worry

32. The scientist came across a friend at a conference.
   a. hid  b. met  c. helped  d. stopped

33. Being without food and water for a long time can cause a person to see things that are hallucinations.
   a. likelihoods  b. numberless  c. unrealities  d. reasons

34. She has several attributes that I really admire.
   a. characteristics  b. movements  c. thoughts  d. reasons

35. He left out the index of the book.
   a. used  b. held back  c. arranged  d. omitted

36. Barbarity is always present during a war.

37. His boss was very belligerent when Harry asked for three days off.
   a. angry  b. basic  c. kind  d. unclear

38. Their savings quickly dwindled.
   a. furthered  b. became smaller  c. started  d. lengthened

39. Everything in the garage had its niche.
   a. tool  b. small piece  c. place  d. result

40. The examination was comprised of three sections.
   a. furthered  b. changed  c. included  d. copied

41. The new highways are going to intersect twelve miles north of Denton.
   a. cross  b. become larger  c. start  d. change

42. She tried to stretch the material while it was wet.
   a. change  b. lengthen  c. cross  d. copy

43. It was an instinctive reaction to pull back when the cat leaped at her.
   a. nonprofessional  b. automatic  c. very important  d. possible

44. The commencement of the music was on schedule.
   a. place  b. start  c. movement  d. result
45. He was dozing when I arrived.  
   a. copying  b. sleeping  c. changing  d. starting

46. I don't have the proper device to do the job.  
   a. tool  b. place  c. small piece  d. copy

47. I don't want him to try to emulate his brother's actions.  
   a. join  b. care for  c. copy  d. include

48. All of the houses were erect after the storm last night.  
   a. changed  b. cared for  c. possible  d. straight up

49. The rivers were swollen after the heavy rains.  
   a. became larger  b. crossed  c. lengthened  d. joined

50. The tot fell off the wall.  
   a. small piece  b. child  c. nonprofessional  d. tool

II. For each underlined word or phrase in each passage, write a related word or phrase in the numbered blanks below the passage. Watch your numbering!

Paricutin

On February 20, 1943, a diligent farmer was working in an out-of-the-way cornfield about 320 kilometers west of Mexico City when he was startled by some smoke coming up through the ground. People in the area thought the farmer was deranged, but scientists soon clarified what was happening. The man was witnessing the birth of a volcano, later to be named Paricutin.

What transpired in the next few years was studied very carefully by geologists from around the world. Soon, massive explosions became commonplace, sending millions of specks of ashes and dust up into the air. Melted rock flowed out of cracks, creating a cone that continued to grow for several years. There were few inhabitants in the area, so, although the hazards were considerable, nobody was injured. However, a portion of the earth that was once good for farming degenerated into land with no commercial value.

After nine years, the pressure that caused the annihilation of the area decreased, and the volcano became inactive. The area is now secure, but abundant evidence of the power of nature remains.

Why this phenomenon occurs is an enigma about which scientists can only conjecture. Geologists continue to gather data, but so far to no avail; many of the theories they think up turn out to be misleading.
The problems that volcanoes make for humanity impel them to continue working. Most people believe that it is merely a matter of time until scientists can predict, if not control, volcanic activity, and the information that was collected from Paricutin certainly has made a significant contribution to that goal.

1. 10. 18.
2. 11. 19.
3. 12. 20.
4. 13. 21.
5. 14. 22.
6. 15. 23.
7. 16. 24.
8. 17. 25.
9.

Groups

Some very interesting experiments were performed with a group of eleven-year old boys. The motive for the research was to examine the impetus created by situations in the formation of groups.

The boys, total strangers to each other, went to a summer camp. At first, they were absolutely free to form friendships, and the materialization of groups was rapid. The boys were then randomly divided and forced to live relatively far from each other in an attempt to modify the natural group structure. Again, rudimentary groups formed quickly. The groups then began to compete with each other in sports and games. Former benevolent relationships between boys from the first grouping became antagonistic in the new grouping. The ubiquitous animosity between groups, which was encouraged by the competitive activities, increased with each passing day and appeared to be permanent.

In the final part of the experiment, an emergency situation was created: the water supply was cut off. Gradually, the momentous differences between groups began to shrink as the boys were forced to work together. In this new context, the differences soon proved to be superficial.

The outcome of the experiment showed that situation, i.e., the presence or absence of strife, plays an important role in the complex
relationships of peer groups. One could posit, therefore, that one cannot preclude situation from any study of group dynamics. The myriad details that cause groups to form are unknown, but one thing is certain: boundaries that exist between groups of people can become amorphous very quickly when the situation demands it.

1. _________  10. _________  18. _________
2. _________  11. _________  19. _________
3. _________  12. _________  20. _________
4. _________  13. _________  21. _________
5. _________  14. _________  22. _________
6. _________  15. _________  23. _________
7. _________  16. _________  24. _________
8. _________  17. _________  25. _________
9. _________
APPENDIX I

STUDENT SURVEY

The following survey was conducted at the completion of the research project. The smaller number of students (N = 33) was due to absences on the day the survey was given. The percentage of students selecting each option is shown under each question.

Vocabulary Survey

During the last semester you have been exposed to two types of vocabulary instruction. I would like your opinion about both methods. Please use the following key to state your opinion:

A. Traditional Approach "Vocabulary Building"
B. Keyword Approach
C. No opinion

Please circle your choice.

1. Which method did you like more?
   A. 15%   B. 76%   C. 9%

2. Which method was easier?
   A. 21%   B. 73%   C. 6%

3. Which method required you to spend more time on preparation for class?
   A. 58%   B. 33%   C. 9%

4. Which method helped you learn more vocabulary?
   A. 3%     B. 79%   C. 18%

5. If you had your choice of methods in the future, which method would you prefer?
   A. 6%     B. 85%   C. 9%
BIBLIOGRAPHY

Books


Articles


Connolly, Patrick G., "How to Teach Families of Words by Comparison," English Language Teaching, XXVII (1973), 171-176.


Unpublished Materials