THE DEVELOPMENT AND EVALUATION OF SELF-INSTRUCTIONAL
MATERIALS FOR USE IN TEACHING SELECTED
BUSINESS VOCABULARY TERMS

DISSERTATION

Presented to the Graduate Council of the
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By

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The problem of this study was twofold: the development of self-instructional materials to be used in teaching business vocabulary to college students and the evaluation of these materials.

The purposes of the study were to develop self-instructional materials for teaching selected business terms to college students, to determine the effect of using these materials as compared to the effect of using a lecture-notebook teaching technique for instruction in business vocabulary and to no instruction in business vocabulary, and to compare the effect of using the lecture-notebook teaching technique to no instruction in business vocabulary.

Self-instructional materials were developed for words on a list of approximately 400 high-importance business terms. These materials were pilot tested during the Fall, 1976.

During the Spring, 1977, the materials were tested under controlled experimental conditions. Ten business communications classes, with a total of 202 students,
participated in this ten-week experiment. The classes were divided into three groups. Two groups studied business vocabulary; the third group, serving as a control, was given no instruction in business vocabulary.

Three classes, with a total of 72 students, completed the self-instructional materials. Three classes, with a total of 71 students, studied business vocabulary by a lecture-notebook technique. Four classes, with a total of 59 students, were assigned to the control group.

A test, given to all groups as a pretest and posttest, was developed from the list of high-importance business terms. This 68-point test was validated by seven judges selected from national leaders in various business teaching areas. The test has a reliability of .81.

Analysis of covariance and the Tukey multiple-comparison procedure for unequal groups were used to test for significant variation between adjusted means. The .05 level of significance was accepted as sufficient to reject the null hypotheses. Sets of scores on the pretest served as covariates, and sets of scores on the posttest were the dependent variables.

Tests comparing adjusted means of the three total groups, comparing the upper 40 per cent of the groups, and comparing the lower 40 per cent of the groups showed that both experimental groups had significantly higher adjusted group means on the posttest than did the control group.
Comparisons between the adjusted mean scores of the two total experimental groups and between the adjusted means of the lower 40 per cent of the experimental groups revealed that students using the self-instructional materials had significantly higher adjusted mean scores than did the lecture-notebook students. No significant difference was found between adjusted mean scores of the upper 40 per cent of the experimental groups.

Four conclusions were drawn from the statistical findings from this experiment. (1) Specific instruction in business vocabulary by either of the two teaching approaches used in this experiment is more effective in increasing the business vocabulary of college business communications students than no instruction. (2) When total groups including all levels of business vocabulary knowledge are considered, the self-instructional materials are more effective than the lecture-notebook technique. (3) For students with a high initial knowledge of business vocabulary, one of these techniques is not more effective than the other. (4) The self-instructional materials used in this study are particularly effective for teaching business vocabulary to students who have a low initial knowledge of business vocabulary.
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# TABLE OF CONTENTS

LIST OF TABLES ........................................ vi

Chapter

I. INTRODUCTION ..................................... 1

Statement of the Problem
Purposes of the Study
Hypotheses
Limitations
Definition of Terms
Background and Significance of the Study

II. REVIEW OF THE LITERATURE .................. 12

Introduction
Programed Instruction Approach
Word-Analysis Approach
Notebook Approach
Other Direct Teaching Approaches
Summary

III. PROCEDURES FOR DEVELOPMENT OF MATERIALS AND COLLECTION AND TREATMENT OF DATA ........ 30

Development of High-Importance Word List
Development of Self-Instructional Materials
Pilot Test of Self-Instructional Materials
Pretest-Posttest Instrument
Selection of Subjects and Research Design
Procedures Used in Group A
Procedures Used in Group B
Procedures Used in Group C
Statistical Procedures

IV. ANALYSIS OF THE DATA ..................... 44

Analysis of Covariance and Tukey Multiple-Comparison Tables
Pretest-Posttest Gain in Mean Scores
Subjective Information
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. SUMMARY OF PROCEDURES AND FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>57</td>
</tr>
<tr>
<td>Summary of Procedures</td>
<td></td>
</tr>
<tr>
<td>Summary of Findings</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>APPENDICES</td>
<td>67</td>
</tr>
<tr>
<td>A. High-Importance Business Vocabulary Word List</td>
<td></td>
</tr>
<tr>
<td>B. Accounting and Finance Unit of Self-Instructional Materials</td>
<td></td>
</tr>
<tr>
<td>C. Mailing to Judges</td>
<td></td>
</tr>
<tr>
<td>D. Business Vocabulary Test</td>
<td></td>
</tr>
<tr>
<td>E. Guide Sheets for Teachers of Group A, Group B, and Group C</td>
<td></td>
</tr>
<tr>
<td>F. Lecture Outlines for Teachers of Group B</td>
<td></td>
</tr>
<tr>
<td>G. Pretest and Posttest Scores for Groups A, B, and C</td>
<td></td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>173</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Number of Subjects in Each Group</td>
<td>45</td>
</tr>
<tr>
<td>II.</td>
<td>Analysis of Covariance for Data of Group A, Group B, and Group C from Pretest and Posttest</td>
<td>47</td>
</tr>
<tr>
<td>III.</td>
<td>Comparison Among Adjusted Means for Group A, Group B, and Group C Using Tukey's Test</td>
<td>47</td>
</tr>
<tr>
<td>IV.</td>
<td>Analysis of Covariance for Data of Group A₁, Group B₁, and Group C₁ from Pretest and Posttest</td>
<td>48</td>
</tr>
<tr>
<td>V.</td>
<td>Comparison Among Adjusted Means for Group A₁, Group B₁, and Group C₁ Using Tukey's Test</td>
<td>49</td>
</tr>
<tr>
<td>VI.</td>
<td>Analysis of Covariance for Data of Group A₂, Group B₂, and Group C₂ from Pretest and Posttest</td>
<td>50</td>
</tr>
<tr>
<td>VII.</td>
<td>Comparison Among Adjusted Means for Group A₂, Group B₂, and Group C₂ Using Tukey's Test</td>
<td>51</td>
</tr>
<tr>
<td>VIII.</td>
<td>Pretest-Posttest Gain in Mean Scores</td>
<td>53</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

A person's success in life depends to a great extent on his ability to express his thoughts and ideas. While some expression of thoughts takes place through means such as body language, verbal language plays the major role in communication. The number of words a person knows appears to be closely related to ability to organize new knowledge and to solve mental problems. Since words are symbols used to express and communicate ideas, it is important that students during the years of their formal education acquire as many of those symbols as possible.

It is important, also, that in addition to learning general vocabulary, college students direct attention to acquiring knowledge of words related to their specialized areas of study (6). Yet, specific instruction in business vocabulary is virtually an untapped area of study. Very little research has been concentrated on helping students build a strong business vocabulary. Instead, business vocabulary growth has been left to chance and has been assumed to develop incidentally with the acquisition of subject matter as students are exposed to teachers and textbooks.
Although differences of opinion exist as to the effectiveness of direct teaching of vocabulary as opposed to incidental growth, several studies have indicated that more direct gains are achieved when specific attention is devoted to vocabulary building (8, 12, 13). Bernard concluded from an experimental study in vocabulary building that a student's vocabulary grows as he attends college, regardless of whether or not he gives the matter much specific attention; however, he also concluded that students who give vocabulary specific attention may gain about twice as rapidly as those whose vocabulary growth is incidental (1).

If Bernard's latter conclusion is correct, there is a significant reason for developing procedures and materials for direct teaching of business terminology. Self-instructional materials provide an opportunity for direct attention to the study of business terms and at the same time, permit the maximum use of classroom time for teaching specific subject matter.

Statement of the Problem

The problem of this study was twofold: (1) the development of self-instructional materials to be used in teaching selected business vocabulary to college students and (2) the evaluation of these materials.
Purposes of the Study

The purposes of this study were (1) to develop self-instructional materials to be used in teaching selected business vocabulary terms to college students, (2) to determine the effect of using self-instructional vocabulary materials as compared to no instruction in business vocabulary, (3) to compare the effect of using self-instructional materials to the effect of using a lecture-notebook teaching technique for instruction in business vocabulary, and (4) to determine the effect of using a lecture-notebook teaching technique as compared to no instruction in business vocabulary.

Hypotheses

In the evaluation of the self-instructional materials, the group using the self-instructional materials will be known as A, the group taught by the lecture-notebook technique will be known as B, and the group receiving no specific instruction in business vocabulary will be known as C. A₁ and A₂ will be the upper 40 per cent and the lower 40 per cent, respectively, of A; B₁ and B₂ will be the upper 40 per cent and the lower 40 per cent, respectively, of B; and C₁ and C₂ will be the upper 40 per cent and the lower 40 per cent, respectively, of C.

At the completion of ten weeks of study, the adjusted mean scores on a business vocabulary test constructed for
use in this study will be related as follows.

1. The adjusted mean score of group A, self-instructional, will be significantly greater than
   a. the adjusted mean score of group C, control.
   b. the adjusted mean score of group B, lecture-notebook.

2. The adjusted mean score of group B, lecture-notebook, will be significantly greater than the adjusted mean score of group C, control.

3. The upper 40 per cent of the groups will be related as follows.
   a. The adjusted mean score of group A₁ will be significantly greater than
      (1.) the adjusted mean score of group C₁.
      (2.) the adjusted mean score of group B₁.
   b. The adjusted mean score of group B₁ will be significantly greater than the adjusted mean score of group C₁.

4. The lower 40 per cent of the groups will be related as follows.
   a. The adjusted mean score of group A₂ will be significantly greater than
      (1.) the adjusted mean score of group C₂.
      (2.) the adjusted mean score of group B₂.
b. The adjusted mean score of group $B_2$ will be significantly greater than the adjusted mean score of group $C_2$.

Limitations

This study was limited to those students enrolling in the Spring, 1977, business communications classes in five Arkansas universities and one Louisiana university. There were 202 students in these classes who participated in this study.

Definition of Terms

In this study the definitions given below will be used.

**Direct teaching of vocabulary**--teaching which focuses attention on vocabulary development. Frequently-used direct teaching methods are the dictionary approach, study of common prefixes, suffixes, and roots, building lists of synonyms and antonyms, and programed instruction.

**Incidental learning of vocabulary**--learning of vocabulary without specific teaching attention being directed toward the development of vocabulary. This term is often used to indicate learning words through context. In the belief that vocabularies will develop as students encounter words in context, teachers may stress that students engage in wide reading.
List of high-importance business terms--a list of approximately 400 business terms developed at North Texas State University.

Lower 40 per cent of group--that set of class members ranking in the lower 40 per cent of each group in terms of pretest scores on the vocabulary test developed for use in this study.

Self-instructional materials--materials designed for independent study by the users. Self-instructional materials used in this study include word lists with definitions, diacritical markings, and parts of speech, and a variety of exercises designed to teach selected business terminology. Correct answers to exercises are included for immediate student knowledge of correct responses.

Upper 40 per cent of group--that set of class members ranking in the top 40 per cent of each group in terms of pretest scores on the vocabulary test developed for use in this study.

Word lists--groups of words selected from a list of high-importance business terms and grouped according to areas of specialized business study. Word list groupings include accounting and finance, economics, marketing, transportation, management, computer science and statistical analysis, business communications, insurance, law, and general business.
Background and Significance of the Study

A wide general vocabulary combined with a wide knowledge of business terminology provides a firm foundation for successfully communicating ideas in the business world. Yet, while much research has been conducted on developing general vocabulary, little has been done in the area of business vocabulary. Perhaps this is true because business teachers feel that students acquire business vocabulary incidentally as they learn specific subject matter. This idea is supported by Bruland who states, "Incidental learning is the way students acquire most of their vocabulary. Not many words in relation to the number needed can be taught directly" (2, p. 35). However, other research studies on vocabulary development provide the conflicting evidence that although some words will be added to a student's vocabulary through incidental learning, more positive gains result from direct teaching (1, 10, 12, 13).

Various methods of direct teaching of general vocabulary have been tested using students at various grade levels. Among the methods used are the word-list dictionary approach, study of common prefixes, suffixes, and roots, building lists of synonyms and antonyms, tracing derivations of words, and programed instruction. Again, research has produced conflicting evidence as to the effectiveness of the methods. Even though empirical data have shown no one "best" approach, test results do point to the fact that unless a direct
effort is made to change students' vocabularies, little change occurs.

Several researchers reported that learning vocabulary through the study of common prefixes, suffixes, and root words is an effective means of word study (4, 5, 11, 15). An awareness of word parts helps students develop ability to use words or word elements to determine the meaning of unknown words. A person who knows the meanings of the more common prefixes can often guess the meaning of a new word when he encounters it in meaningful context.

Researchers using a self-instructional or programed approach for teaching vocabulary reported differing conclusions as to the effectiveness of the programs used (3, 7, 14). However, investigators generally agree that self-instructional materials offer certain benefits. Self-instructional materials make it possible for students to work independently with immediate knowledge of results. Self-instructional materials also allow teacher flexibility in the classroom and save classroom instructional time. Lumsden sounded a note of caution to future users of programed materials. He urged that educators take seriously the need to have empirical data illustrating the effectiveness of particular programs being considered for use (9).

A search of literature revealed no recent study concerned with specific teaching of business vocabulary terms
to college students, although writers interested in vocabulary building recommended that vocabulary development requires attention in all subject areas. Burns suggested that "In every subject field, teachers should develop vocabulary carefully . . ." (4, p. 534). And in discussing research for future study, Dale emphasized the need for more concentration on study of special vocabularies and less concern about data on "total" vocabularies (6). Dale and Milligan urged that words selected for study be directly related to the subject under study (5).

The business vocabulary study reported here provides self-instructional materials for teaching selected business vocabulary and empirical data specifically related to their effectiveness. In addition, this study adds to knowledge about two direct vocabulary teaching approaches.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Before the present study was undertaken, a preliminary examination of the library files of two universities was made to determine what recent research has been done in the area of direct teaching of business vocabulary. Later, a computer search of Education Resources Information Center materials was made on the same topic. These investigations revealed only one research study related to the direct teaching of business vocabulary (19). The computer search also revealed that the University of Southern California developed a highly specialized program for foreign graduate students entering the MBA program there (20). This special ten-week course, taken prior to the first semester of the regular program, concentrates attention on business communications skills, reading, and business vocabulary. Pre- and posttests indicate remarkable student progress in vocabulary and communications skills.

While little formal research has been done in the area of direct teaching of business vocabulary, a number of studies have been conducted on general vocabulary development, and research has been done in development of specific
vocabulary related to academic fields other than business. Therefore, the decision was made to include in this chapter a synthesis of a representative group of these vocabulary studies. A 1968 report by the National Council of Teachers of English (23) was particularly helpful in identifying direct teaching techniques for vocabulary development and in discussing research which has been done.

The research findings are presented in this chapter under headings reflecting the type of vocabulary teaching techniques used in the studies. In the present business vocabulary study two direct teaching techniques were utilized, self-instructional materials and a combination lecture-notebook approach. The lectures in the lecture-notebook approach emphasized word analysis or study of word parts. With these facts in mind, the vocabulary studies synthesized in the remainder of this chapter are presented under the headings Programed Instruction Approach, Word-Analysis Approach, Notebook Approach, and Other Direct Teaching Approaches.

Programed Instruction Approach

A study by Frank Lanham and others (19) dealt with the teaching of specific business vocabulary by programed instruction. This five-month study was conducted with high school cooperative, distributive, and office occupations students. The programed materials presented technical business vocabulary related to the commercial letter of
credit. Three groups were used in the study which was
designed to test three motivation materials to increase the
desire to learn and techniques for learning that would
transfer to similar learning situations. A 25-item multiple
choice test was used for pre-, immediate post-, and retention
testing. No significant differences were found between or
within treatment groups in amount of learning or retention.

Wilson (29) compared the vocabulary growth of four
groups of first grade students. Three teaching methods were
used: programed, teacher-directed, and a combination of the
two methods. The fourth group of students who received no
specific instruction in vocabulary acted as the control
group. A 48-item test was used as a pre-, posttest, and
delayed posttest. On the test given immediately after the
presentation of the study materials, all three experimental
groups scored significantly higher gains than the control
group did; however, there was no significant difference
between any two experimental groups on this test. On a
delayed posttest there was no significant difference between
any two groups.

In his study of programed instruction versus conven-
tional teaching of language arts to eighth grade students,
Johnston (18) found no significant differences, using an
analysis of covariance, between the groups using the pro-
gramed instruction and the one taught by the conventional
method.
Eicholz and Barbe (13) used a masonite board self-checking device for teaching words in context to college students. They selected words considered to be part of the general vocabulary of these students. At the end of eight weeks of instruction, they concluded that repetition in a context situation aided the learning of word meanings.

Two studies conducted with college students (1, 5) used the EDL word clues programmed approach. In a study of 90 college freshmen enrolled in compulsory reading improvement classes, Alexander (1) compared the EDL word clues approach to a conventional dictionary teaching approach. On a test of general vocabulary, he noted no significant differences between the two approaches in promoting vocabulary growth. Although mean vocabulary gains of the two groups were similar, both groups showed significant vocabulary improvement.

College business communications students were the subjects in Burnett's ten-week study (5). The EDL word clues programmed approach was used in one group, and no formal vocabulary instruction was given to students in the control group. Analysis of the findings revealed no significant difference between the two groups in written communications ability, vocabulary growth, or reading comprehension.

Word-Analysis Approach

Dale and Milligan (10) suggest from their research on vocabulary development that the word-analysis approach
emphasizing the study of prefixes, suffixes, and roots can be efficient, meaningful, and effective. Stauffer's research (25) provided a logical basis for this type of word study. Stauffer found that 24 per cent of the words on a 20,000 word list contained prefixes and the 15 prefixes account for 82 per cent of these.

Deighton, however, discusses several difficulties encountered in stressing the word-analysis approach. In his publication, *Vocabulary Development in the Classroom* (12), Deighton points out, for example, that in some words what would appear to be prefixes are not prefixes, that some affixes have more than one meaning, and that the literal meanings as derived from analysis of word parts may be far different from the current meanings of the words. Teaching procedures Deighton suggests as useful in teaching word analysis are (1) word parts with invariant meanings, (2) English base words, (3) words in combination, (4) synonyms, (5) antonyms and contrasting words, and (6) derivations.

Otterman (22) employed the word-analysis approach in a six-week vocabulary study using 440 seventh graders. The experimental group studied thirty lessons of ten minutes' duration each. Each lesson presented one prefix or one word root, and one day was spent on each lesson with reviews scattered throughout the lessons. The statistical data on an immediate posttest showed no significant gains by the experimental group over the control group in general
vocabulary, in reading comprehension, or in speed of reading. A delayed test on recall of prefixes and word root meanings given six weeks after the experiment showed the experimental group significantly superior to the control group.

Currie (9) divided 823 seventh, eighth, and ninth grade students into three groups for her ten-week vocabulary study. One of the groups studied exercises designed to help students discover the meaning of word parts by classifying words according to similarities of structure and meaning; a second group was taught the word part meaning directly through use of a glossary and exercises applying knowledge to the solution of meanings of derivative words; a third group which had regular classroom vocabulary practice served as a control group. Materials used in the two experimental methods were self-directing and self-correcting. Although all three groups made gains, the two experimental groups showed superior results to those of the control group. Both experimental methods were almost equally effective for teaching word parts. The first experimental method was slightly more effective than the second experimental method for improving vocabulary ability.

Hammack (17) examined three approaches to vocabulary improvement in her experiment with ninth grade students. Method one was a teacher-directed plan which emphasized word lists, prefixes, suffixes, and root words; in method two students prepared notebooks with exercises using new words
or emphasized words; in method three wide reading was stressed and class time was provided for reading. As a control, a fourth approach of incidental vocabulary learning was used. Hammack found that all three teaching methods yielded significantly better results at the .05 level of significance than did the incidental learning method.

Einbecker (14) used three methods of instruction in her vocabulary study. One group of students studied the meanings of 40 pre-test words but no instruction was given on the root words within those words; a second group was instructed to study the meanings of the words and to use a dictionary or other sources to locate the related root words; a third group studied the meanings of the words and also used instructor-prepared audio-visual slides and tape which presented the related root words. Based on results of the tests of the 86 junior college business education freshmen who were subjects in this study, Einbecker concluded that for these students the teaching of root words was the most effective method of teaching vocabulary.

Von Horn and Janes (27) constructed weekly lessons for twenty weeks of a directed pilot-study program in vocabulary instruction. Each lesson consisted of twenty words; each word was followed by definition, diacritical markings, and sample sentences using the words in context. Space was provided for students to write original sentences for the words, and the most frequently used prefixes, suffixes, and
roots were included in each word list. Teachers used various methods in teaching the lessons. In general, one lesson was presented each week. The fifth, eleventh, sixteenth, and twenty-first weeks were used for review so that the study lasted about twenty-five weeks. Teachers who participated in this study evaluated the project. They commented that the study was worthwhile and should be continued, that students became highly motivated, and that their students scored consistently higher than previous classes on the Cooperative English Test.

Notebook Approach

An experiment conducted by Blair (4) during the first semester of the 1939-1940 school year compared test results for students using a dictionary-notebook approach for vocabulary development to test results of a control group of students who gave no special attention to vocabulary building. College juniors and seniors enrolled in educational psychology and secondary education classes were the subjects in this study. Each student in the experimental group developed a vocabulary notebook in which new words were presented along with their meanings. At the beginning of each class meeting, students turned in sheets listing new words found since the last class meeting together with the meanings of the words, sources where the words were found, and sentences in which words were used. At the end of the
experiment, statistical data revealed that the experimental group made an average gain of 3.6 points and the control group made an average gain of 1.0 points.

Westfall (28) reports on a vocabulary course taught at a Colorado college which uses the notebook approach. Enrollment in the course is voluntary. The course design includes an objective measure of the size of individual student recognition vocabularies at the beginning of the quarter, a planned program for vocabulary development, and a remeasure of student vocabulary at the end of the course. Each student is required to keep a vocabulary notebook listing a minimum of 300 words the student has met during the quarter. Each entry in the notebook presents the word, its pronunciation, meaning, sentence in which the word was used, and the source from which the word was taken. Part of each class period is used for discussion of new words. Use of dictionary, understanding diacritical marks, and writing definitions are also stressed. Some attention is given to the study of prefixes, suffixes, and roots. Test results reported by Westfall indicate large word gains. Students with low initial vocabularies register higher gains than students with high initial scores; even so, students at the top also show word gains.

Other Direct Teaching Approaches

In a study made in the 1930's Gray and Holmes (16) compared the vocabulary growth of fourth grade history pupils
who were taught by a direct method to the vocabulary growth of those who learned vocabulary through an incidental, wide-reading approach. A comparison of mean scores showed that the experimental group gained 22.8 words and the control group gained 8.9. Test results also showed that pupils with the smallest initial vocabulary test scores made the greatest gains.

Catterson (6) investigated a context approach to vocabulary teaching and development of word-analysis skills. In her three-month study of pupils in 31 fifth grade classes, she divided the participants into two experimental groups and a control group. Catterson found that students using the context approach made gains in reading achievement and vocabulary superior to those made by students using a "rules" approach and superior to gains by students in a control group.

Daw (11) used eighth grade social science students in his study of vocabulary growth. He found that devoting 10 per cent of the pupil's time to vocabulary study resulted in an improvement of more than 60 per cent in knowledge of word meanings included in the vocabulary test used in the study.

In his study Vanderlinde (26) sought an answer to the question, "Does the study of quantitative vocabulary improve problem-solving?" He divided the list of arithmetic terms to be studied into groups of eight terms per week. The
weekly lists were duplicated and distributed to each student in the experimental group. Teaching techniques were initial presentation, class discussion, explanation by the teacher, and use of the dictionary. An analysis of the statistical data showed that pupils in the experimental group who studied quantitative vocabulary by the direct-study techniques used in this study scored significantly higher on an arithmetic problem-solving test than pupils in the control group who did not give special attention to studying quantitative vocabulary. The experimental group also scored significantly higher on a test of arithmetic concepts than did the control group.

Miles' study (21) was designed to discover the extent to which the teaching of vocabulary by a direct method for one semester would affect the general vocabulary of high school students after a period of two and a half years. At the end of the semester in which students in the experimental group were given direct vocabulary instruction, test results showed a median gain of 32.5 words on the Alpha form of the Inglis Vocabulary Test. Two and a half years after the experiment, the test was administered again to the experimental group and to a matched control group who had not had vocabulary teaching at any time by the direct method. The median score of the experimental group was thirteen words higher than that of the control group on this test. Miles
concluded that attention to direct teaching of vocabulary is worthwhile and does have a carry-over value. Baty's study (2) tested the hypothesis that students who typewrite from materials in which the meanings of unusual words are obvious from context will experience a significant increase in vocabulary and a normal increase in typewriting skill. Students were divided into two experimental groups and a control group for the purposes of this study. Scores on a vocabulary test containing the words which had been studied showed a gain of 8.37 words for one experimental group, a gain of 1.12 words for the second experimental group, and a gain of .76 words for the control group. The difference in gains was significant at the .0005 level. Both experimental groups made significantly higher gains in words per minute typed than did the control group.

Students enrolled in fourteen sections of freshman English were the subjects of a vocabulary experiment conducted by Eurich (15). There were 196 students in the experimental group and 233 in the control group. The experimental group studied 100 words per week taken from essays and books that they were reading. Ten minutes of each class period were devoted to vocabulary discussion. Eurich found that students enlarge their vocabularies through direct special attention to vocabulary building rather than by indirect means.
Using a traditional dictionary approach to vocabulary building, Bernard (3) studied the vocabulary growth of students in two sections of a mental hygiene course. Students enrolled in this course were university freshmen who were having problems with their academic work. Bernard concluded from the statistical data that

1. A student's vocabulary grows, as he attends college, regardless of whether or not he gives the matter much specific attention.
2. There is a measurable gain in vocabulary in as short a period as six weeks.
3. Students who give vocabulary specific attention may gain about twice as rapidly as those whose vocabulary growth is incidental (3, p. 743).

From her study using college basic speech students, Crump (7) suggested that it appears there is some merit in a direct method of teaching vocabulary since there was a slight difference in favor of a group that was given direct word study instruction over a group using an incidental learning approach.

In an informal vocabulary study conducted during two semesters, Curoe and Wixted (8) tested the vocabulary growth of college seniors. In the experimental group, three minutes at each class meeting were used to emphasize "today's words." The vocabulary words were written on the board, teachers helped students with word meaning, syllabication, spelling and pronunciation, and urged students to use the words frequently. Test results indicated that the experimental
group gained 30.07 words as compared to a gain of 6.5 words by the control group.

Ristow's study (24) measured incidental vocabulary growth of 623 students enrolled in university speech fundamentals courses over a two-year period. Of these students 44 gained between one and six words, 34 gained more than six words and the remainder were static. Ristow concluded that vocabulary growth will not occur incidentally with course work through exposure to the vocabulary of the teacher and the textbook.

Summary

The review of vocabulary research studies revealed that student vocabularies show more gain when specific attention is given to vocabulary development than when vocabulary development is left to chance. A number of research studies reported significantly greater gains by groups receiving specific instruction in vocabulary over control groups receiving no vocabulary instruction (2, 3, 6, 8, 9, 17, 26, 29). Research has also produced evidence that specific instruction in vocabulary has carry-over value (21).

Research data are inconclusive as to which method of specific vocabulary instruction is the best. While three of the researchers whose studies are reported in this chapter found no significant differences between experimental groups using direct teaching approaches (1, 19, 29), other
researchers found that one direct teaching technique was more effective than another in developing students' vocabularies (6, 14).
CHAPTER BIBLIOGRAPHY


27


CHAPTER III

PROCEDURES FOR DEVELOPMENT OF MATERIALS AND
COLLECTION AND TREATMENT OF DATA

Development of High-Importance Word List

The list of high-importance business terms used in this study was developed over a period of years at North Texas State University by Perkins (7). A preliminary list of 800 business terms was prepared from a thorough search through textbooks, indexes, word lists, and business dictionaries. Words selected were those considered to be significant. Words thought to be known by most business students were omitted from the list. After a panel of six business teachers screened the list to about half the original number of words, it was submitted to a group of 65 teachers; the 30 teachers who responded deleted some words and added others. An adjusted list of terms was then screened by the panel of six, and a revised list of approximately 365 words was sent to 100 businessmen, 74 of whom responded. Combining the professors' and businessmen's responses resulted in a list of approximately 400 business words and terms considered to be of high importance. A copy of this word list is presented in Appendix A.
Development of Self-Instructional Materials

As the first part of this study, self-instructional materials were written for the words on the high-importance business vocabulary list. To aid students in learning the business vocabulary, the words on the list were grouped according to areas of business study. Word lists include accounting and finance, economics, marketing, transportation, management, computer science and statistical analysis, business communications, insurance, law, and general business. Because there were more words on some word lists than on others, the word lists were grouped into five units in order to distribute the study load more evenly. Subsequently, the word lists were grouped into the five units listed below, and materials were written for related groups of words.

Unit I: Accounting and Finance
Unit II: Economics, Marketing, Transportation
Unit III: Management, Computer Science and Statistical Analysis, Insurance, Business Communications
Unit IV: Law
Unit V: General Business

The materials include definitions, instructional materials to show the words used in context, and a variety of application exercises for students to complete. The materials are self-instructional in that they can be completed as
outside assignments, at the student's own pace, and with immediate knowledge of correct responses.

For the word definitions *Webster's New World Dictionary*, College Edition (6), served as the main source; also, business books were consulted so that definitions used in the materials reflect common business meanings of the words.

Over a period of months sentences were collected from current periodicals and books which showed the high-importance business words used in context. These sentences were adapted into exercises used in the self-instructional materials along with other sentences, exercises, and various types of puzzles written specifically for this study. A copy of one unit of these materials is presented in Appendix B.

Pilot Test of Self-Instructional Materials

The self-instructional materials for each group of words on the high-importance word list were pilot tested during the Fall, 1976, semester using the procedures given below. For the pilot test a business communications class of fourteen students was used.

Step 1. All students were told the nature of the experiment. Three business communications students worked through the sequence of exercises, providing information on inadequate directions, misunderstandings, and other problem areas.
Step 2. After needed revisions were made, the exercises were administered to the other eleven students in the pilot group. As they completed their work, these students wrote on note cards suggestions relevant to the materials and noted the length of time spent on each unit of work. Comments on the note cards revealed that completion time for a unit of material varied from one student to another and that several students spent more time on the first unit than on the others. Although not all students reported their completion time on each unit, those who did report their time stated that the longest time spent on any unit was six hours and the shortest time was one hour and five minutes.

Step 3. Items on which three or more misses were made by students in the pilot group were studied carefully. This item analysis, together with student comments, provided the basis for further revisions.

Pretest-Posttest Instrument

A search through The Mental Measurements Yearbook, Seventh Edition (2), revealed no available test for business vocabulary. Therefore, a test was developed from the list of approximately 400 high-importance business vocabulary terms. The test was comprised of several parts and several types of questions designed to show subjects' knowledge of business vocabulary.
To check the content validity of the items on the test for measuring knowledge of business terminology, a panel of seven business teachers was asked to judge the instrument. The panel of judges was chosen from national leaders in various business teaching areas, such as business communications, accounting, marketing, and business education. Current business periodicals were used to locate names of leaders in the various business teaching areas. A list of these judges is presented in Appendix C. The mailing to the judges included a letter, a questionnaire, a preliminary test, a copy of the word list, and a summary of the steps in the development of the word list. Copies of the letter, questionnaire, and summary of steps in the development of the word list are shown in Appendix C, along with a copy of the follow-up letter which was sent to two of the judges.

There were 124 items on the preliminary test mailed to the panel of judges. Validation of the items produced a 68-item test which was used as the pretest and posttest in this study. Of the 68 items on this test, 23 were approved by all seven judges as being valid, 37 were approved by six judges, and eight were approved by five judges. Thus, all items were approved by at least five judges. A copy of this 68-item test is given in Appendix D.

To check this 68-item test for reliability, the test was administered to two groups of students enrolled in business communications classes at two Arkansas universities.
in the Fall, 1976. Forty-four students took the test. A split-half technique of scoring, such as that described by Sax (8, p. 160), was used. Each paper was scored twice; the first score was the total of the even-numbered items which the student answered correctly. The second score was the total of the odd-numbered items the student answered correctly. Scores on the even-numbered items were then correlated with scores on odd-numbered items using the Kuder-Richardson formula 20. This split-half technique of scoring showed the test to have a reliability of .81.

The test was not timed. Time required by students for completion ranged from approximately 20 to 35 minutes.

Selection of Subjects and Research Design

The second part of this study was the evaluation of the self-instructional materials under controlled conditions. For this study, permission was obtained from five Arkansas universities and one Louisiana university to use students enrolled for business communications in the Spring semester of 1977. These schools were selected because their geographic location made possible necessary controls over the experiment. Six teachers and 202 students in a total of ten business communications classes participated in the study. Most of the students in these classes were juniors or seniors, although a few sophomores and freshmen were enrolled.
Teachers selected for the study teach business communications at these six institutions. In the initial contact with each of these teachers, the nature of the experiment was explained. The teachers readily agreed to participate.

Their classes were divided into three groups, A, B, and C. Students in group A used the self-instructional materials developed especially for this study, and students in group B were taught by a combination lecture and notebook technique. A third group of students served as a control group. Students in this third group, group C, received no specific instruction in business vocabulary in the business communications class. There were three classes in group A, self-instructional, three in group B, lecture-notebook, and four in group C, control.

One teacher in the study taught three classes of business communications. Two of these classes were assigned to groups A and B by a flip of a coin. The third class was assigned to the control group. The two business communications classes of a second teacher were assigned to groups A and B by a flip of a coin. The third class included in group A and the third class included in group B were taught by teachers who had only one business communications class during the Spring semester, 1977. The remaining three control classes were taught by teachers at two other universities. This assignment of classes to groups resulted in
each of the methods being taught at three universities, with 72 students in group A, 71 in group B, and 59 in group C.

To control for the Hawthorne effect, all students were told that they were participating in a research experiment.

The Nonequivalent Control Group Design was used in this study. According to Campbell and Stanley (3, p. 47), this is a design used frequently in educational research when the groups constitute naturally assembled collectives such as classrooms. The design involves an experimental group and a control group in which subjects are not assigned randomly to groups. A pretest and posttest are administered to all subjects in the groups.

Procedures Used in Group A

Students in group A used the self-instructional materials designed specifically for this study. All teachers of classes in group A were given guide sheets outlining procedures for this group. A copy of these guide sheets is shown in Appendix E. During the course of the experiment, personal visits and telephone conversations with teachers were made in an attempt to assure that these guidelines were followed.

During the first week of the experiment, teachers administered the business vocabulary test on the list of high-importance business terms. During this week, teachers introduced the project, gave explanations, answered questions
on procedures, and distributed the first set of business vocabulary materials. Students in group A were told that they would receive credit on their business communications grades for participating in this study.

The self-instructional materials were distributed at two-week intervals so that students studied an average of approximately 40 words per week for each of the ten weeks of this study. These materials were completed by students outside the classroom. Students were encouraged to establish a regular study pattern on the self-instructional materials.

At the end of each two-week period, students turned in the materials which had been assigned for study during that time. To check their knowledge of the words, biweekly tests containing 20-25 items were given at the end of the second, fourth, sixth, and eighth weeks of the study. After the tests were graded, they were returned to students. On each day that a short test was administered, another set of self-instructional materials was distributed. Teachers of group A classes provided time on the days that new materials were distributed for questions and answers on the exercises and procedures; otherwise, there was no teacher instruction relevant to the list of high-importance business vocabulary terms.

At the end of ten weeks, all group A teachers administered the business vocabulary test to their classes for the
second time. Pretests and posttests were scored, and test data were prepared for processing by computer.

Procedures Used in Group B

The lecture-notebook technique used in group B was adapted from a similar approach used at a Colorado college and described by Westfall (10). The technique included teacher instruction on common prefixes and suffixes, and students were required to develop a business vocabulary notebook over a period of ten weeks. Teachers of group B were given guide sheets outlining procedures for the group. A copy of these guide sheets is provided in Appendix E. During the course of the experiment, personal visits and telephone conversations with teachers were made in an attempt to assure that these guidelines were followed.

Prefixes and suffixes selected for lecture presentation were those which appeared frequently in the words on the high-importance word list. Instructional materials for introducing these prefixes and suffixes were furnished to group B teachers. Books by Deighton (4), Silverthorn, Perry, and Oberly (9), and Adams and Belmont (1) were used as sources for the instructional materials. A copy of one of these lectures and lists of points included in other lectures are presented in Appendix F.

For inclusion in the notebook each student in group B was given lists of the high-importance business terms to be
studied together with the definition of each word, its pronunciation, and part of speech. These definitions were the same ones used in the self-instructional materials. Each student was required to present this information in a notebook followed by at least two sentences showing each high-importance business term used in context. Students were instructed either to write their own sentences or to consult current business periodicals for sentences in which the terms appeared. A partial list of business periodicals was given to each student participating in group B.

During the first week of the experiment, teachers of group B administered the business vocabulary test on the list of high-importance business terms and presented an introductory lecture which explained the project and the procedures this group would use. Teachers answered questions related to the project and distributed the first word list. Students in group B were told that they would receive credit on their business communications grades for participating in this study.

The business vocabulary word units were distributed at two-week intervals so that students studied an average of approximately 40 words per week for each of the ten weeks of this study. At the end of the second, fourth, sixth, and eighth weeks of the experiment, students in group B took a short unit test to check knowledge of words assigned for study during that time. These 20-25-item biweekly tests were
the same tests taken by group A. The tests were graded and returned to students. Group B students were encouraged to complete the portion of the notebook for each unit of words during the two weeks the words were assigned for study and before the biweekly test was given for that unit of words.

On the days that biweekly tests were given, teachers of group B presented brief lectures on common prefixes and suffixes designed to aid students in learning new words. On these days teachers also distributed new business vocabulary word lists and provided time for questions and answers on the lecture materials and on the vocabulary project.

At the end of ten weeks of instruction, all group B teachers collected the vocabulary notebooks developed by their students and administered the 68-point business vocabulary test to their classes for the second time. Pretests and posttests were scored, and test data were prepared for processing by computer.

Procedures Used in Group C

Students in group C, control, took the pretest on the high-importance business vocabulary during the first week of the study and the posttest at the end of the tenth week. Group C students were told that they were participating in a research study, but they received no specific business vocabulary instruction in the business communications class.
A copy of the guide sheets for teachers of control classes is shown in Appendix E.

Pretests and posttests were scored, and test data were prepared for processing by computer.

Statistical Procedures

The analysis of covariance followed by the Tukey multiple-comparison method for unequal groups (5) was used to compare the adjusted means of groups A, B, and C. The same statistical procedures were used to compare the adjusted means of groups $A_1$, $B_1$, and $C_1$ and the adjusted means of groups $A_2$, $B_2$, and $C_2$. According to Campbell and Stanley (3, p. 49), the analysis of covariance is a proper statistical procedure to use with the Nonequivalent Control Group Design. The Tukey multiple-comparison method was used at the suggestion of the North Texas State University computer center staff.

All hypotheses were tested in null form, and the .05 level of significance was accepted as sufficient to reject the null hypotheses. The set of scores on the pretest was the covariate, and the set of scores on the posttest was the dependent variable in the analysis of covariance procedure. The data were processed by the North Texas State University computer center staff.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

ANALYSIS OF THE DATA

In this study participants were divided into three groups. Group A students used the self-instructional business vocabulary materials developed especially for this study, group B students were taught business vocabulary by a lecture-notebook technique, and group C served as a control group receiving no instruction in business vocabulary in the business communications class. Each of the three groups was divided into subgroups. Groups $A_1$ and $A_2$ were the upper and lower 40 per cent respectively of group A; groups $B_1$ and $B_2$ were the upper and lower 40 per cent respectively of group B; and groups $C_1$ and $C_2$ were the upper and lower 40 per cent respectively of group C.

Table I shows the number of students in each group and subgroup. There was a total of 202 students in groups A, B, and C; thus, the results of this study are based on the test scores of 202 students.

Because subjects in this study could not be assigned randomly to groups, analysis of covariance was used. Analysis of covariance is a statistical method which enables a comparison of group means on a dependent variable adjusted for the effects of differences in means of an uncontrolled variable,
<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Subjects</th>
<th>Group</th>
<th>Number of Subjects</th>
<th>Group</th>
<th>Number of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>72</td>
<td>A₁</td>
<td>29</td>
<td>A₂</td>
<td>29</td>
</tr>
<tr>
<td>B</td>
<td>71</td>
<td>B₁</td>
<td>29</td>
<td>B₂</td>
<td>29</td>
</tr>
<tr>
<td>C</td>
<td>59</td>
<td>C₁</td>
<td>24</td>
<td>C₂</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>202</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

or covariate. In each application of the analysis of covariance procedure in this study, the pretest score on the high-importance business vocabulary test was the covariate; and the posttest score on the same test was the dependent variable. The analysis of covariance procedure was applied to pretest and posttest data of the total groups, A, B, and C. It was also used on the pretest and posttest data of the upper 40 per cent of the groups, A₁, B₁, and C₁ and the pretest and posttest data of the lower 40 per cent of the groups, A₂, B₂, and C₂.

In each comparison of adjusted group means if the analysis of covariance resulted in a significant F value at the .05 level of significance, the Tukey multiple-comparison method for unequal groups was applied to determine between
which adjusted means a significant difference exists at the .05 level of significance.

The remainder of this chapter is divided into three sections. The first section presents the results of the analysis of covariance and Tukey multiple-comparison procedures applied to data collected from pretest and posttest administrations of the test on high-importance business vocabulary. The results are presented in six tables. For purposes of analysis, each hypothesis was stated in null form. The .05 level of significance was accepted as sufficient to reject the null hypotheses.

The second section of this chapter presents a table showing the gain in mean scores between pretest and posttest for each of the three groups and six subgroups. This table and the subjective data presented in the third section of this chapter are included to aid in interpreting results of the experimental study.

Analysis of Covariance and Tukey Multiple-Comparison Tables

Table II presents a summary of the results of the analysis of covariance procedure applied to the pretest and posttest scores of groups A, B, and C. The score on the pretest was the covariate, and the posttest score was the dependent variable.

Since the extremely large F ratio indicates that there is a significant difference among the three adjusted group
### TABLE II

ANALYSIS OF COVARIANCE FOR DATA OF GROUP A, GROUP B, AND GROUP C FROM PRETEST AND POSTTEST

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sums of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>3016.8828</td>
<td>1508.4414</td>
</tr>
<tr>
<td>Within</td>
<td>198</td>
<td>5834.0781</td>
<td>29.4650</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>8850.9609</td>
<td></td>
</tr>
</tbody>
</table>

\[ F=51.1943 \quad p=.0001 \]

means, the Tukey multiple-comparison test was run to determine between which groups a difference exists. Results of this test are displayed in Table III.

The very large \( Q \) value of 14.4726 shown on Table III indicates a significant variation between the adjusted means of group A and group C at the .01 level. The large \( Q \) value of 5.3864 also indicates a significant difference between

### TABLE III

COMPARISON AMONG ADJUSTED MEANS FOR GROUP A, GROUP B, AND GROUP C USING TUKEY'S TEST

<table>
<thead>
<tr>
<th>Group</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5.3864</td>
<td>14.4726</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>9.0862</td>
</tr>
</tbody>
</table>
the adjusted means of group A and group B at the .01 level. Therefore, hypotheses 1a and 1b are accepted. These hypotheses stated that the adjusted mean score of group A, self-instructional, would be significantly greater than the adjusted mean score of group C, control, and group B, lecture-notebook, on the business vocabulary posttest.

The large Q value of 9.0862 indicates a significant difference between the adjusted means of group B and group C at the .01 level. Hypothesis 2, that the adjusted mean score of group B, lecture-notebook would be significantly greater than the adjusted mean score of group C, control, is accepted.

Table IV summarizes the results of the analysis of covariance procedure applied to the pretest and posttest scores of groups A₁, B₁, and C₁. The pretest score was the covariate, and the posttest score was the dependent variable.

TABLE IV

ANALYSIS OF COVARIANCE FOR DATA OF GROUP A₁, GROUP B₁, AND GROUP C₁ FROM PRETEST AND POSTTEST

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sums of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>406.0759</td>
<td>203.0380</td>
</tr>
<tr>
<td>Within</td>
<td>78</td>
<td>988.9380</td>
<td>12.6787</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>1395.0139</td>
<td></td>
</tr>
</tbody>
</table>

F=16.0141  p=.0001
The F ratio of 16.0141 indicates that there is a significant difference among the adjusted means of groups $A_1$, $B_1$, and $C_1$. Subsequently, the Tukey multiple-comparison test was run to determine between which adjusted means the difference exists. Results of the Tukey test are presented in Table V.

**TABLE V**

**COMPARISON AMONG ADJUSTED MEANS FOR GROUP $A_1$, GROUP $B_1$, AND GROUP $C_1$ USING TUKEY'S TEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>Group $B_1$</th>
<th>Group $C_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A_1$</td>
<td>2.7664</td>
<td>8.2543</td>
</tr>
<tr>
<td>$B_1$</td>
<td></td>
<td>5.4879</td>
</tr>
</tbody>
</table>

The Q value of 8.2543 indicates a significant difference between the adjusted means of group $A_1$ and group $C_1$ at the .01 level. Hypothesis 3a(1), that the adjusted mean score of the upper 40 per cent of the self-instructional group, group $A_1$, would be significantly higher than the adjusted mean score of the upper 40 per cent of the control group, group $C_1$, is accepted.

The Q value of 2.7664 is below the value necessary for a significant variation at the .05 level. Therefore, hypothesis 3a(2), that the adjusted mean of the upper 40 per cent of the experimental group $A$ would be significantly
greater than the adjusted mean of the upper 40 per cent of experimental group B, is rejected.

The Q value of 5.4879 indicates that a significant difference exists between the adjusted means of the upper 40 per cent of the lecture-notebook group and the upper 40 per cent of the control group. This difference is significant at the .01 level. Hypothesis 3b, that the adjusted mean score of group $B_1$ would be significantly greater than the adjusted mean score of group $C_1$, is accepted.

Table VI presents a summary of the results of the analysis of covariance procedure applied to the pretest and posttest scores of groups $A_2$, $B_2$, and $C_2$. These three groups are the lower 40 per cent of each group respectively. The set of pretest scores was the covariate, and the set of posttest scores was the dependent variable.

### TABLE VI

**ANALYSIS OF COVARIANCE FOR DATA OF GROUP $A_2$, GROUP $B_2$, AND GROUP $C_2$ FROM PRETEST AND POSTTEST**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sums of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>1874.1860</td>
<td>937.0930</td>
</tr>
<tr>
<td>Within</td>
<td>78</td>
<td>3439.5054</td>
<td>44.0962</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>5313.6914</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$F = 21.2511$</td>
<td>$p = .0001$</td>
</tr>
</tbody>
</table>


Following the determination of the extremely large F ratio of 21.2511, indicating a significant variation among the adjusted means of the three groups, the Tukey multiple-comparison test was run. Table VII shows the results of the Tukey test.

**TABLE VII**

**COMPARISON AMONG ADJUSTED MEANS FOR GROUP A$_2$, GROUP B$_2$, AND GROUP C$_2$ USING TUKEY'S TEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>Group B$_2$</th>
<th>Group C$_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A$_2$</td>
<td>3.5327</td>
<td>9.3326</td>
</tr>
<tr>
<td>B$_2$</td>
<td>5.7999</td>
<td>5.7999</td>
</tr>
</tbody>
</table>

The large Q value of 9.3326 indicates a significant difference between the adjusted means of group A$_2$ and group C$_2$ at the .01 level. The Q value of 3.5327 is significant at the .05 level. Thus, hypotheses 4a(1) and 4a(2) are accepted. These hypotheses stated that the adjusted mean score of group A$_2$ would be significantly greater than the adjusted mean scores of groups C$_2$ and B$_2$.

Since the Q value of 5.7999 indicates a significant difference at the .01 level, hypothesis 4b is accepted. This hypothesis stated that the adjusted mean score of group B$_2$ would be significantly greater than the adjusted mean score of group C$_2$. 
Tables II through VII summarized the results of the analysis of covariance and Tukey multiple-comparison procedures applied to pretest and posttest data on the business vocabulary test. Analysis of the data reported on these tables resulted in acceptance of all hypotheses except one. Hypothesis 3a(2) was rejected because the Q value was below the value necessary to indicate a significant variation at the .05 level.

On the basis of the statistical data, it was determined that the adjusted mean score of the total group using the self-instructional materials was significantly higher than the adjusted mean scores of the total lecture-notebook group and the total control group. The data also revealed that the adjusted mean score of the upper 40 per cent of the self-instructional group was significantly greater than that of the upper 40 per cent of the control group. Comparisons of the lower 40 per cent of the three groups showed that the adjusted mean score of the self-instructional group was significantly greater than the adjusted mean scores of both the lecture-notebook group and the control group.

A comparison of adjusted means of the lecture-notebook group and the control group and a comparison of the adjusted mean scores of each subgroup of these two groups showed that students taught by the lecture-notebook technique in each case had significantly higher adjusted mean scores than did the control students.
Pretest-Posttest Gain in Mean Scores

Table VIII shows the gain in mean scores from pretest to posttest for each group and subgroup. There were 72 students in group A, self-instructional, 71 in group B, lecture-notebook, and 59 in group C, control. These scores are presented to aid in interpreting the results of this experimental study.

TABLE VIII

PRETEST-POSTTEST GAIN IN MEAN SCORES

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Gain in Mean Score</th>
<th>Per Cent of Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>44.9028</td>
<td>56.7361</td>
<td>11.8333</td>
<td>26.35</td>
</tr>
<tr>
<td>B</td>
<td>44.6620</td>
<td>52.9859</td>
<td>8.3239</td>
<td>18.64</td>
</tr>
<tr>
<td>C</td>
<td>46.7966</td>
<td>48.4068</td>
<td>1.6102</td>
<td>3.44</td>
</tr>
<tr>
<td>A1</td>
<td>54.2414</td>
<td>61.4138</td>
<td>7.1724</td>
<td>13.22</td>
</tr>
<tr>
<td>B1</td>
<td>54.4828</td>
<td>59.6207</td>
<td>5.1379</td>
<td>9.43</td>
</tr>
<tr>
<td>C1</td>
<td>58.0000</td>
<td>58.0833</td>
<td>.0833</td>
<td>.14</td>
</tr>
<tr>
<td>A2</td>
<td>35.3103</td>
<td>51.0000</td>
<td>15.6897</td>
<td>44.43</td>
</tr>
<tr>
<td>B2</td>
<td>34.8276</td>
<td>46.1724</td>
<td>11.3448</td>
<td>32.57</td>
</tr>
<tr>
<td>C2</td>
<td>34.7917</td>
<td>38.7500</td>
<td>3.9583</td>
<td>11.38</td>
</tr>
</tbody>
</table>

Although the control group had the highest pretest mean of the three total groups, this group showed only a very
small mean gain between pretest and posttest. Both experimental groups made large gains in mean scores, with the self-instructional group showing the largest mean gain of 11.8333 points. This gain was 3.5 points greater than the mean gain of the lecture-notebook experimental group and 10.2 points higher than the mean gain of the control group.

In comparing the mean gains of the upper 40 per cent of each group, the same type of relationship emerges as was noted among the total groups. On the pretest the control group had a higher mean score than both of the experimental groups; yet, on the posttest the mean score of the control group was lower than that of the other groups. Again, the largest gain in mean score between pretest and posttest occurred in the self-instructional group.

In each group the lower 40 per cent of the group scored a higher mean gain than the upper 40 per cent. The largest mean gain of any group or subgroup was earned by the lower 40 per cent of group A. This self-instructional subgroup scored an extremely large mean gain of 15.6897 points between pretest and posttest.

The data showing individual gains in scores between pretest and posttest (Appendix G) reveals that in group A, self-instructional, every student made a gain. The largest individual gains scored in all groups were 35 points earned by a student in the lower 40 per cent of group B and 34
Subjective Information

Attached to the back of each unit of self-instructional materials was a blank sheet of paper on which students were asked to write comments pertinent to the materials and their use. Approximately half of the 72 students in this group wrote comments. Although students were asked particularly to note any negative reactions they had to the materials, only a few negative comments were written. While several students stated that they did not enjoy working crossword puzzles, other students reported that the puzzles were a "fun" way to learn words. A few students suggested that meanings of certain words be expanded and/or that discussion paragraphs be written to explain further the meanings of the words. Most of the students who responded indicated that they felt that the materials were helpful in learning the words, the instructions clear, and the project worthwhile. Several students asked for copies of the self-instructional materials to use as reference materials in their other business courses.

In classes using the lecture-notebook approach, written comments were not solicited from students. However, a few of these students commented orally, and teachers of classes in this group reported that students showed a dislike for the
lecture-notebook vocabulary study approach. One teacher of a lecture-notebook group noted that a few students stated that compiling the notebook added an unusually heavy workload to their business communications study. In one school where both experimental techniques were used, students in the lecture-notebook group asked if they could rotate with the other group so that every other two-week period they could complete the self-instructional materials and the other class could study by their method. These students indicated that they felt that it would be easier to learn business vocabulary through the use of the self-instructional materials rather than writing their own sentences and that it would be more enjoyable.
CHAPTER V

SUMMARY OF PROCEDURES AND FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Procedures

The problem of this study was twofold: the development of self-instructional materials to be used in teaching selected business vocabulary to college students and the evaluation of these materials.

The purposes of this study were to develop self-instructional materials to be used in teaching selected business vocabulary terms to college students, to determine the effect of using these self-instructional materials as compared to no instruction in business vocabulary and as compared to the effect of using a lecture-notebook teaching technique for instruction in business vocabulary, and to determine the effect of using a lecture-notebook teaching technique as compared to no instruction in business vocabulary.

The self-instructional materials for the high-importance business vocabulary were pilot tested during the Fall semester, 1976. During the Spring semester, 1977, the materials were field tested using ten business communications classes at five Arkansas universities and one Louisiana university.
There were 202 students in these classes who participated in the study. The ten classes were divided into three groups for the experiment. Three classes were assigned to group A, three were assigned to group B, and four classes were assigned to group C. The 72 students in group A used the self-instructional materials, the 71 students in group B were taught by a lecture-notebook technique, and the 59 students in group C received no instruction in business vocabulary in the business communications class.

The six teachers who participated in the study were supplied with guide sheets giving the procedures to be used with their groups. Personal visits and telephone conversations with teachers during the ten weeks of the experiment were made in an attempt to assure that the guidelines were followed.

Group A completed the self-instructional vocabulary materials outside of class; no in-class instruction on the business vocabulary being studied was given to this group. Group B developed a business vocabulary notebook outside of class, and teachers of these classes presented four in-class lectures of approximately 15 minutes in length emphasizing the word-analysis approach to vocabulary study. Both groups A and B took short business vocabulary tests at the end of weeks two, four, six, and eight.

Each of the three groups was divided into subgroups. $A_1$ and $A_2$ were the upper 40 per cent and the lower 40 per
cent respectively of \( A \); \( B_1 \) and \( B_2 \) were the upper 40 per cent and the lower 40 per cent respectively of \( B \); and \( C_1 \) and \( C_2 \) were the upper 40 per cent and the lower 40 per cent respectively of \( C \).

A test was constructed to measure knowledge of the high-importance business vocabulary. A panel of seven leading business educators was used to validate this instrument which was administered as a pretest and posttest. Each of the 68 items included on the test was approved as valid by at least five of the judges. A split-half technique was used to check the reliability of the test. Using the Kuder-Richardson formula 20 showed the test to have a reliability of .81. All groups took this test as a pretest during the first week of the experiment and again as a posttest at the end of ten weeks.

Summary of Findings

The analysis of covariance and Tukey multiple-comparison procedures were used to test the hypotheses. For purposes of testing, each hypothesis was stated in null form. The .05 level of significance was accepted as sufficient to reject the null hypotheses. Hypotheses stated in this study dealt with the expected relationships of adjusted group means on a test of high-importance business vocabulary given at the end of ten weeks of vocabulary study.
Application of the analysis of covariance to the pretest-posttest data for the three total groups, A (self-instructional), B (lecture-notebook), and C (control), resulted in an F ratio of 51.1943. This extremely large F ratio indicated that there was a significant difference among the adjusted means of the three groups. To determine between which groups the difference existed, the Tukey multiple-comparison procedure for unequal groups was applied. Q values resulting from this procedure indicated that significant differences existed between the adjusted means of the total self-instructional group and the total lecture-notebook group, between the total self-instructional group and the total control group, and between the total lecture-notebook group and the total control group. In each comparison the difference between adjusted group means was significant at the .01 level. Therefore, hypotheses 1a, 1b, and 2 were accepted.

Hypothesis 1a stated that the adjusted mean score of group A, self-instructional, would be significantly greater than the adjusted mean score of group C, control. Hypothesis 1b stated that the adjusted mean score of group A, self-instructional, would be significantly greater than the adjusted mean score of group B, lecture-notebook. Hypothesis 2 stated that the adjusted mean score of group B, lecture-notebook, would be significantly greater than the adjusted mean score of group C, control.
Application of the analysis of covariance to the pretest-posttest data for the upper 40 per cent of the three groups also resulted in a large F ratio, indicating a significant difference existed among the adjusted means of the three subgroups, A₁, B₁, and C₁. The Tukey multiple-comparison procedure was then applied to the data for these subgroups. The resulting Q values for the data of the upper 40 per cent of the groups revealed a significant variation between the adjusted means of the top 40 per cent of the self-instructional group and the top 40 per cent of the control group at the .01 level. Therefore, hypothesis 3a(1) that the adjusted mean score of the upper 40 per cent of the self-instructional group would be significantly greater than the adjusted mean score of the upper 40 per cent of the control group was accepted.

Q values resulting from the Tukey multiple-comparison procedure also indicated a significant variation at the .01 level between the adjusted means of the upper 40 per cent of the lecture-notebook group and the upper 40 per cent of the control group. Hypothesis 3b that the adjusted mean score of the upper 40 per cent of the lecture-notebook group would be significantly greater than the adjusted mean score of the upper 40 per cent of the control group was accepted.

Since the Tukey multiple-comparison procedures indicated no significant variation between the adjusted means of the upper 40 per cent of the self-instructional group and the
upper 40 per cent of the lecture-notebook group, hypothesis 3a(2) was rejected. This hypothesis stated that the adjusted mean score of the upper 40 per cent of the self-instructional group would be significantly greater than the adjusted mean score of the upper 40 per cent of the lecture-notebook group.

Application of the analysis of covariance and the Tukey multiple-comparison procedures to the pretest and posttest data of the lower 40 per cent of the three groups showed a significant difference at the .01 level between the adjusted means of the lower 40 per cent of the self-instructional group and the lower 40 per cent of the control group and between the lower 40 per cent of the lecture-notebook group and the lower 40 per cent of the control group. A significant variation was found between the adjusted means of the lower 40 per cent of the self-instructional group and the lower 40 per cent of the lecture-notebook group at the .05 level. Hypotheses 4a(1), 4a(2), and 4b were accepted.

Hypothesis 4a(1) stated that the adjusted mean score of the lower 40 per cent of the self-instructional group would be significantly greater than the adjusted mean score of the lower 40 per cent of the control group. Hypothesis 4a(2) stated that the adjusted mean score of the lower 40 per cent of the self-instructional group would be significantly greater than the adjusted mean score of the lower 40 per cent of the lecture-notebook group. Hypothesis 4b stated
that the adjusted mean score of the lower 40 per cent of the lecture-notebook group would be significantly greater than the adjusted mean score of the lower 40 per cent of the control group.

Conclusions

The conclusions given below are based on statistical findings related to the hypotheses formulated for the study. Each test comparing the adjusted means of the three total groups and each test comparing the adjusted means of their subgroups showed that both experimental groups had significantly higher adjusted group means on a business vocabulary posttest than did the control group. Comparison between the adjusted mean scores of the two experimental groups and comparisons between the adjusted means of their subgroups revealed that students using the self-instructional materials constructed for use in this study had significantly higher adjusted mean scores than did the lecture-notebook students except in one case. Only in the upper 40 per cent of the two experimental groups was no significant difference found between adjusted mean scores. Four conclusions are drawn from these data.

1. Specific instruction in business vocabulary by either of the two teaching approaches, use of self-instructional materials constructed for this study or lecture-notebook technique, is more effective in increasing the business
vocabulary of college business communications students than no instruction. This was true in the present study when adjusted mean scores of total groups were compared, when the adjusted mean scores of the upper 40 per cent of the groups were compared, and when the adjusted mean scores of the lower 40 per cent of the groups were compared.

2. When total groups including all levels of business vocabulary knowledge are considered, the self-instructional materials constructed for this experiment are a more effective teaching means than the lecture-notebook technique. Support for this conclusion is drawn from the finding in the present study that on a posttest of business vocabulary the adjusted mean score of the total self-instructional group was significantly greater than the adjusted mean score of the total lecture-notebook group.

3. In the subgroups representing the upper 40 per cent of the two experimental groups used in the present study, no significant difference was found between their adjusted mean scores on the business vocabulary posttest. Therefore, the conclusion is drawn that for students with a high initial knowledge of business vocabulary, one of these techniques is not more effective than the other.

4. The self-instructional materials used in this study are particularly effective for teaching business vocabulary to students who have a low initial knowledge of business vocabulary. This conclusion is supported by findings in the
present study that the adjusted mean score of the lower 40 per cent of the self-instructional group was significantly greater than both the adjusted mean score of the lower 40 per cent of the control group and the adjusted mean score of the lower 40 per cent of the lecture-notebook group.

This study did not produce statistical data measuring student attitudes toward the two experimental teaching approaches. Therefore, no definite conclusion can be stated about student attitudes. However, interviews with teachers and informal statements by students suggested that students using the self-instructional materials had a more positive attitude toward the study of business vocabulary than students taught by the lecture-notebook technique.

Recommendations

The first four recommendations are related to the findings and conclusions reached in the present study. Recommendations five through seven suggest further research which might be conducted.

1. Specific teaching instruction should be directed toward increasing the business vocabulary of college students.

2. Both the use of self-instructional materials developed for this study and the lecture-notebook technique should be considered effective means of helping students in all ability levels increase their business vocabularies.
3. When a group of students with varying levels of business vocabulary knowledge is to study business vocabulary, the self-instructional materials developed for this study should be considered a more effective technique than the lecture-notebook technique.

4. Particularly with students who have a low initial knowledge of business vocabulary the self-instructional materials used in this study are recommended over the lecture-notebook teaching approach.

5. A study following the guidelines of the present study should be conducted using as subjects students enrolled in a freshman business class such as Introduction to Business.

6. A study should be conducted comparing the use of the self-instructional business vocabulary materials developed for the present study with vocabulary teaching approaches other than the lecture-notebook technique.

7. Future studies of business vocabulary teaching techniques should include a measurement of student attitudes toward the techniques used.
APPENDICES
APPENDIX A

HIGH-IMPORTANCE BUSINESS VOCABULARY WORD LIST

Developed by W. E. Perkins

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Abandonment
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Abscond
Abstainer
Abstract
Accretion
Accrual
Actuarial
Adjustor
Ad valorem
Affidavit
Affiliate
Affluence
Agent
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Anti-trust
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Auxiliary

Biennial
Bilateral
Bill of lading
Binary
Binder
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Book value
Bottleneck
Boycott
Breach
Brokerage
Bullish
Bylaws

Constituents
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Conversion
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<td>Monetization</td>
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Syndicate X
Synergy
Synopsis Yield
Systems Z

T Zoning
Tangibles
Tariff
Telecommunications
Templates
Tendering
Tickler
Time-sharing
Torts
Transient
Trust
Tycoon

U
Ultimatum
Underwriter
Unilateral
Unit record
Usurpation
Usury
Utilitarian
Utility

V
Valuation
Variable
Vendor
Volatile
Voluminous
Voucher

W
Waiver
Warrant
Warranty
Waybill
Wholesaler
Wildcat
APPENDIX B

ACCOUNTING AND FINANCE UNIT OF
SELF-INSTRUCTIONAL MATERIALS

Statement to the Student

Your success in life will depend to a large extent on your ability to express your thoughts and ideas. While some expression of thoughts occurs by means such as body language, verbal language plays the major role in communication. There are many indications that the number of words a person knows is closely related to ability to organize new knowledge and to solve mental problems. Since words are symbols used to express and communicate ideas, it is important that you acquire as many of those symbols as possible. For successful communication with associates and clients in the normal conduct of your business dealings, you will need a good command of the language employed in business.

To aid you in mastering some of the terminology common to the field of business, the materials presented here were developed. These materials focus attention on approximately 400 business words and phrases which a survey of businessmen and business educators revealed are important for successful communication in business.
You will find that some of the terminology presented on these pages is already familiar to you. Use the materials related to that terminology as a review to reinforce your knowledge and correct usage of the terms. Other business words and phrases may be less well known to you. You may have met them before, and you may have a vague understanding of their meaning; but they aren't a real part of your vocabulary. Work with these terms until you feel comfortable with them and can claim them as additions to your business vocabulary.

The vocabulary materials are presented in a self-instructional format which will permit you to complete them at your own pace and to check immediately for the correctness of your responses. To aid in your study, the words have been grouped into several units according to subject area. Those words which are common to several fields of business have generally been included in only one group of terms, although you will find that some words are presented in more than one group because they have more than one common business meaning.

The study in which you are participating is designed to last ten weeks. You will have two weeks to work with vocabulary terms in each unit. Every two weeks you will be given materials related to a different group of business terms.

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# Key to Pronunciation*

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Key Words</th>
<th>Symbol</th>
<th>Key Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>fat, lap</td>
<td>b</td>
<td>bed, dub</td>
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<td>æ</td>
<td>ape, date</td>
<td>d</td>
<td>did, had</td>
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<td>bare, care</td>
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<td>even, meet</td>
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<td>æər</td>
<td>here, dear</td>
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<td>over, under</td>
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<td>let, ball</td>
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<td>ring, drink</td>
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<td>æ in agent</td>
<td>ʃh</td>
<td>she, dash</td>
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<td>i in sanity</td>
<td>th</td>
<td>thin, truth</td>
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<td>o in comply</td>
<td>th</td>
<td>then, father</td>
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<tr>
<td>u in focus</td>
<td>zh</td>
<td>azure, leisure</td>
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INTRODUCTORY STATEMENT
ACCOUNTING AND FINANCE

The business terms to be studied in this unit are some of those you will find in accounting and/or in finance work. Some of these words are so commonly used in the business world that you may meet them in many of your business courses. Other terminology may be used less often and thus, may be less familiar to you. Remember to study all the words, even those that you feel you already know.

You will have two weeks to work with the vocabulary terms in this unit. At the end of two weeks, you will be given materials related to another group of business terms.

In completing the work, follow all instructions carefully. As you work on the exercises, place a card or sheet of paper over the correct answers at the right. Slide the cover down as you complete each item in an exercise to reveal the correct response. After you have finished the assigned vocabulary work for this unit, you will be given a test to determine your knowledge of the terms in this group.

For best results in studying the vocabulary materials, set a work schedule for yourself and follow it.
SECURING CAPITAL

The terms to be studied in this section of work deal with securing capital for business expansion and/or operations.

INSTRUCTIONS: 1. Study carefully the definitions of the words. You will need to know the meanings of these terms before continuing with your work.

2. After you have studied the words listed, read the brief paragraphs which follow, answering the questions related to the information in the paragraphs.

3. Complete exercises 1 and 2. As you work through the exercises, place a slip of paper over the correct answers shown at the right of each page. When you have finished each item in the exercise, slide the paper down to reveal the correct answer for that item and check your response.

LIST OF WORDS:

1. annum
   an'um
   n.
   A year.

2. asset
   as'et
   n.
   Anything owned that has an exchange value.

3. bond
   bond
   n.
   An interest-bearing certificate issued by a government or business, promising to pay the holder a specified sum on a specified date.
4. capital
kap'tl n.
Wealth (money or property) owned or used in business by a person, corporation, et cetera; the net worth of a business, amount by which the assets exceed the liabilities. Owners' net investment in a business.

5. collateral
kat'zl n.
 Anything, such as stocks or bonds, that secures or guarantees the discharge of an obligation: it is returned to the debtor when the obligation is fulfilled.

6. common stock
kom'zn stok n.
That part of the capital stock that does not have special preferences or rights.

7. conversion
kon-vur'shzn n.
In finance, a change of a security, currency, et cetera from one form to another.

8. debenture
di-ben'chur n.
An interest-bearing bond issued with no specific pledge of property as collateral for the loan.

9. discount
dis'kount n.
A deduction from an original price or debt. The interest deducted in advance by one who lends money on a promissory note.

10. inconvertible
in-kon-vur'ta-b'l adj.
That cannot be changed or exchanged. In finance, not changeable from one type of security to another.

11. indenture
in-den'chur n.
A written contract or agreement that describes in detail the terms of a loan.

12. maturity
mø-tyoor'ti n.
State of becoming due; the time at which a note et cetera becomes due.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>mortgage</td>
<td>The pledging of property to a creditor as security for the payment of a debt.</td>
</tr>
<tr>
<td>nonparticipating</td>
<td>Descriptive of preferred stock that is not given the right to share in profits with common stock above a certain amount.</td>
</tr>
<tr>
<td>participating</td>
<td>Descriptive of preferred stock that has the right to share with the common stock in profits above a fixed amount.</td>
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<tr>
<td>preemptive</td>
<td>Having a provision that gives holders of common stock the right to purchase a proportionate number of shares of a new issue of stock.</td>
</tr>
<tr>
<td>preferred stock</td>
<td>Ownership shares in a corporation which are entitled to stated priorities as to income or assets ahead of common shares.</td>
</tr>
<tr>
<td>premium</td>
<td>An additional amount paid or charged; specifically, (a) amount paid for a loan above the face value; (b) an amount paid, as for stock, above the nominal or par value.</td>
</tr>
<tr>
<td>principal</td>
<td>The face value of a stock or bond.</td>
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<tr>
<td>promissory</td>
<td>Containing an unconditional written promise to pay a fixed amount on a specified date.</td>
</tr>
<tr>
<td>redemption</td>
<td>A buying back or recovering by paying a fee.</td>
</tr>
</tbody>
</table>
22. securities

Evidence of debt or ownership of property, especially bonds or stock certificates.

23. underwriter

A person or firm which buys new securities from the issuing company and sells the securities to investors.

INSTRUCTIONS: As you read the paragraphs below, note the correct use of the underscored business terms. Fill in the blanks which appear throughout these paragraphs by supplying the correct business terms.

When the owners of a corporation decide to expand the operations of the corporation, there are a number of decisions that must be made relative to securing necessary capital. One of the important decisions is in determining what type of securities will be issued to acquire the needed funds. When a large sum of money is needed, for example, there are two primary ways used in getting the additional funds: by issuing corporation stocks, or by selling corporation bonds.

If the decision is made to secure additional financing by issuing stocks, the owners, called stockholders, must decide whether to issue additional shares of common stock or to issue preferred stocks. If additional common stocks are issued, owners who already hold common stocks have the first option to buy the additional shares to be issued. This option, if exercised, will permit the stockholders to maintain their same proportionate share of ownership in the company. This option, or right, to buy additional shares of a new issue of common stock is called a preemptive right.
1. Two types of securities which corporations issue are ________ and __________.

2. Two types of stocks are called ________ and ________.

3. An option to buy a proportionate share of a new issue of common stock is a ________ right. preemptive

Instead of issuing additional shares of common stock, the stockholders may elect to issue preferred stock. Both the group of preferred stockholders and the group of common stockholders own the corporation, but those people who own the common stocks constitute the group which has voting rights in the corporation. Although owners of preferred stocks generally do not vote on decisions relevant to corporation operations, the preferred stocks do carry with them some preference over the common stocks. Usually the preference has to do with dividends. For example, if dividends are declared, they must be declared first on preferred stocks before dividends on common stocks are declared. This means that if a company's earnings are not sufficient to declare dividends on both classes of stock, the preferred stock will be favored.

On preferred stocks there is a stated dividend rate; common stocks carry no stated dividend rate. It is possible, however, for preferred stocks to be paid more than the stated rate. When preferred stocks are sold as a means of getting additional money for expansion or other purposes, the stockholders must decide if the preferred stocks are eligible to be paid more than the stated rate. Preferred stocks which
share in dividends above the stated rate are said to be participating preferred stocks. That is, if earnings will permit extra dividends to be declared, the preferred stocks will participate in these dividends along with the common stock. If preferred stocks do not take part in extra dividends, they are said to be nonparticipating.

4. Shares of stock which entitle the owners to vote on corporation matters are called ______________. common stocks

5. If provision is made for preferred stock to share in extra dividends along with common stock, the preferred stock is said to be ______________. participating

To acquire needed financing for expansion, et cetera, owners of the corporation may vote to borrow money by issuing corporation bonds. The face value, or principal, of such a bond is usually $1,000 (or a multiple thereof). If the bond is sold for more than the principal value, the excess received is called a premium; anything less than principal value is called a bond discount. Bonds are sold with the guarantee that interest will be paid at regular, specified times to those who buy the bonds. Interest is stated and paid at a yearly rate based on a per cent of the principal, or face value. To illustrate this procedure, consider that a $1,000 bond is sold at an interest rate of 9%. Each year (per annum) until the maturity date on the bonds, the corporation must pay the bond buyer $90 in interest. In addition to paying interest on the bond, the corporation which issues bonds agrees to repay the buyers the principal value of the bonds at the end of a stated
number of months or years. The agreement, or contract, between the buyer and seller of the bonds is known as the bond indenture.

6. The face value of a bond or a note is referred to as _______.

7. If the buyer of a bond pays more than face value for the bond, the excess is called a _______.

8. If the buyer of a bond pays less than face value for a bond, the difference is called a _______.

9. A bond __________________ is an agreement, or contract, between buyer and seller of the bond.

The bond indenture may stipulate that the issuing corporation may redeem, or buy back, the bonds before the maturity date on the bonds. In such cases, the redemption price will be stated in the bond indenture. The bond indenture may provide for converting (exchanging) the bonds for common stocks at some specified time. If the bonds can be exchanged for stocks, the bonds are said to be convertible; bonds which carry no such provision are inconvertible.

If the bonds can be sold without the corporation pledging any of its assets as collateral, the bonds are called debentures. In other words, debenture bonds are issued just on the general credit reputation of the firm.

Because of the similarity of the two terms, indenture and debenture are often confused. Remember, indenture is the bond contract, or agreement; and debenture
is a bond that is issued without pledging corporation assets as collateral.

10. A bond ________________ will indenture stipulate whether or not the bond can be converted.

11. Assets pledged as security that a loan will be repaid are referred to as ___________ collateral for the loan.

12. Bonds issued on the general credit reputation of the firm are known as ___________. debentures

13. Bonds which cannot be exchanged for stock are termed ___________ bonds. inconvertible

Often when new securities are to be issued to acquire additional funds, the business corporation will sell the complete issue to an underwriter, such as an investment banker, who will then handle the actual sale of the securities to the investors.

The money needed for buying property or for building a plant may be secured by another form of borrowing in which assets are pledged to assure that the loan will be repaid. Usually, the asset pledged as collateral is the property for which the money will be spent. The borrower issues a mortgage note payable, and the lender holds a mortgage to the property until the amount of the loan has been repaid by the borrower.
14. An investment banking company which handles the sale of a corporation's securities is called an _________.

15. When property is pledged as collateral for a loan, the lender holds a ___________ on the property until the amount of the loan has been repaid.

When funds are needed in small amounts or for short periods of time, the borrowing may be done on a short-term promissory note basis. Such a note is an unconditional promise to repay a fixed amount on a specified date. This same promise is made on all notes and bonds. Often, on short-term promissory notes, collateral is not required. The bank which serves as the lender may, however, deduct the interest for the loan in advance. The amount of interest paid in advance, if any, is known as a discount. At the time of the maturity of a discounted note, the borrower must repay the principal amount of the note. If interest is not deducted in advance, the borrower must repay the principal on the maturity date, and he must pay any interest that is due.

16. A _____________ note is an promissory unconditional promise to repay a fixed amount on a specified date.
17. Interest deducted in advance on a note is called a ________. discount

Exercise I

INSTRUCTIONS: Write in the blanks the terms which best complete the sentences below.

1. Two types of securities which corporations issue are ________ and ________.

2. Two types of stocks are called ________ and ________.

3. An option to buy a proportionate share of a new issue of common stock is known as a ________ right.

4. Shares of stock which entitle the owners to vote on certain corporation matters are called ________ stocks.

5. If provision is made for preferred stock to share in extra dividends along with common stock, the preferred stock is said to be ________.

6. The face value of a bond or a note is referred to as ________.

7. If the buyer of a bond pays more than face value for the bond, the excess is called a ________.
8. If the buyer of a bond pays less than face value for the bond, the difference is called a ________.

discount

9. A bond ___________ is an agreement, or contract, between buyer and seller of the bond.

indenture

10. Assets pledged as security that a loan will be repaid are referred to as ____________ for the loan.

collateral

11. Bonds issued on the general credit reputation of the firm are known as ____________.

debentures

12. Bonds which cannot be exchanged for stocks are termed ___________ bonds.

inconvertible

13. An investment banking company which handles the sale of a corporation's securities is called an ________.

underwriter

14. When property is pledged as collateral for a loan, the lender holds a ______ mortgage (lien) on the property until the amount of the loan has been repaid.

15. A ____________ note is an unconditional promise to repay a fixed amount on a specified date.

promissory

16. Interest deducted in advance on a note is called ____________.

discount
Exercise II

INSTRUCTIONS: Read each of the following questions and circle the correct answer.

1. Are stocks and bonds called securities?  yes  no  yes
2. On a mortgage note payable is collateral required?  yes  no  yes
3. Are bonds issued on the general credit of a corporation called indentures?  yes  no  no
4. If the face value of a note is $1,000 and the interest is $10, is the principal $1,010?  yes  no  no
5. Is a bond contract called an indenture?  yes  no  yes
6. If bonds can be exchanged for common stock, are the bonds convertible?  yes  no  yes
7. Are debentures usually secured by a mortgage on property?  yes  no  no
8. Is an owner's right to buy additional shares of new stock issues called a preemptive right?  yes  no  yes
9. Are nonparticipating preferred stocks those which are excluded from sharing in extra dividends with common stocks?  yes  no  yes
10. If bonds are sold at less than face value, are they sold at a premium?  yes  no  no
11. Is interest deducted in advance known as a discount?  yes  no  yes
12. Does annum mean a year?  yes  no  yes
SYNONYMS

A synonym is a word having a similar meaning to another word. The words to be studied in this section of work have rather common synonyms.

INSTRUCTIONS: 1. Study the definitions presented for the following list of business terms.

2. Complete the related exercises. Check for correctness of each of your responses.

LIST OF WORDS:

1. accrual ə-krō-əl n. An expense or revenue that has been incurred or earned but that has not been paid. An expense or revenue that has accumulated.

2. affiliate ə-fil′-ē-at n. A company effectively controlled by another or associated with others under common ownership or control.

3. affluence af′-lōo-əns n. Abundance of property; wealth; opulence.

4. allocate al′-ə-kāt′ v.t. To apportion for a specific purpose or to particular persons or things. To set apart or earmark. Allot. Assign.

5. amalgamate ə-mal′-ə-māt′ v.t. and v.i. To merge into a single body; to mix; unite; consolidate.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>6. arrears</td>
<td>The state of being behind in the discharge of obligations. Unpaid and overdue debts.</td>
</tr>
<tr>
<td>7. asset</td>
<td>Anything owned that has an exchange value.</td>
</tr>
<tr>
<td>8. contingent</td>
<td>That may or may not happen; possible.</td>
</tr>
<tr>
<td>9. cyclical</td>
<td>Having the nature of a cycle; moving or occurring in cycles. Periodic.</td>
</tr>
<tr>
<td>10. debit</td>
<td>An entry on the left-hand side; the left-hand column of an account where such entries are made.</td>
</tr>
<tr>
<td>11. default</td>
<td>To fail to do something or be somewhere when required. To fail to make payment when due.</td>
</tr>
<tr>
<td>12. deferred</td>
<td>Postponed; delayed recognition of an expense already paid or of a revenue already received.</td>
</tr>
<tr>
<td>13. deficit</td>
<td>The amount by which a sum of money is less than what is expected, due, needed, et cetera; shortage; a title sometimes used in corporation accounting systems to indicate a net loss.</td>
</tr>
<tr>
<td>14. defray</td>
<td>To pay (the cost or expenses).</td>
</tr>
<tr>
<td>15. disbursement</td>
<td>A payment. An expenditure.</td>
</tr>
<tr>
<td>16. entity</td>
<td>A thing that has real and individual existence, in reality or in the mind; a being.</td>
</tr>
</tbody>
</table>
17. fiscal  fis'k'l  adj.  Financial, monetary.
18. inconvertible  in kən-vūr'tə-b'l  adj.  Not changeable. That cannot be changed or exchanged.
19. liability  lī'ə-bil'ə-ti  n.  An amount that is owed. A debt.
20. marginal  mār'ji-n'l  adj.  Changeable, variable.
21. outlay  out'lā  n.  Money spent; a disbursement.
22. per diem  pēr dī'am  adj.  By the day; daily.
23. reimburse  rē im-būrs'  v.t.  To pay back (money spent).
25. residual  ri-zij'dō-al  adj.  Left over after part is taken away; remaining.
26. subsidiary  səb-sid'i-eri  adj.  Acting as a supplement; auxiliary, especially in a secondary or subordinate capacity.
27. variable  var'i-a-b'l  adj.  Apt or likely to change or vary; changeable, inconstant, fluctuating.

Exercise III
INSTRUCTIONS:  1. Study the words and their common synonyms, noting the correct usage of each term in the sample sentences.
2. Throughout this exercise, in some sentences a word has been omitted. Fill in the blank in those sentences by writing a synonym for the word shown under the blank line.
1. **accrual**: accumulation, accretion, increase

   Example: The accountant noted that since the last payment of interest on the note, there was an accrual of interest in the amount of $315.

2. **affiliate**: associate, ally, member

   Example: The affiliate company has prospered, thanks in large part to its ties with the large corporation.

3. **affluence**: wealth, prosperity, opulence

   Example: His three luxury cars, yacht, and fifteen-room home indicated his affluence.

4. **allocate**: earmark, allot, assign, apportion

   Example: The bookkeeper will allocate the various costs and expenses to the production departments.

5. **amalgamate**: unite, merge, consolidate

   Example: Would you endorse a proposal to amalgamate all the regulatory powers now vested in the Fed, the Comptroller of the Currency, and the FDIC into this commission?

   a. This act would __________ allocate assign credit to those not expert in handling it.

   b. Is ABC Corporation an __________ affiliate associate of Johnson & Benson?

6. **arrears**: behind, deficit, overdue debts

   Example: He tried to get an amendment to the foreign aid bill to stop foreign assistance to
any country more than a year in arrears on their debts.

7. **assets**: belongings, possessions, resources

   Example: Company assets exceeded $1 million.

8. **contingent**: possible, conditional, provisional

   Example: Mimmax Corporation agreed to insure the Acy Corporation against any loss which Acy may suffer as a result of the contingent liability arising from the lawsuit.

9. **cyclical**: periodic, recurrent, serial

   Example: The ebb and flow of profits and growth appeared to follow a cyclical pattern.

10. **debit**: charge, left, lefthand

    Example: Place the amount on the debit side of the account.

    a. He was two months in arrears with his payments.

    b. The amount represented a conditional liability; we are awaiting the outcome of the lawsuit.

11. **deferred**: delayed, postponed, retarded

    Example: This tax can be deferred by buying another home, within eighteen months, for at least as much as you received for the old one.
12. **default**: dishonor, fail to pay, forfeit  
   Example: Banks exert pressure long before a borrower threatens to default on principal or interest.

13. **deficit**: shortage, arrearage, net loss  
   Example: In 1976, the company operated at a small deficit, but it is expected to show a profit in 1977.

14. **defray**: pay, expend, settle  
   Example: It was obvious that several thousand dollars would be needed to defray expected expenses.

15. **disbursement**: expenditure, outlay, payment  
   Example: Current disbursements on the project exceeded those of last year.
   
   a. Recognition of the expense was \_\_\_\_\_\_\_\_\_ to the next fiscal period.
   b. Each respondent agreed to report the receipt or \_\_\_\_\_\_\_\_\_ disbursement payment of any asset that was improperly omitted from the books.

16. **entity**: being, subsistence, existence  
   Example: A corporation is considered to be a legal business entity.
17. **fiscal**: monetary, pecuniary, financial

   Example: During the past fiscal year, the company incurred a net loss.

18. **inconvertible**: unchangeable, unalterable, constant

   Example: The inconvertible bonds were redeemed at 106 1/4 two years before maturity.

19. **liability**: obligation, debt, amount owed

   Example: When the work was finished, the company's liability amounted to over $10,000.

20. **marginal**: variable, borderline, changeable

   Example: The D bond issues are in a somewhat more marginal position than the E category.

   a. Company officials met to establish the _policies for fiscal_ financial the coming year.

   b. Part-time labor costs are reported as _expenses_. marginal variable

21. **outlay**: expenditure, payment, disbursement

   Example: A big cash outlay for merchandise and materials was reported for 1976.

22. **per diem**: daily, per day, each day

   Example: A breakdown on the senator's expenditures showed that he spent $18,225 on per diem expenses.
23. **reimburse**: repay, settle with, refund

   Example: The driver's insurance company will reimburse him for the amount of the loss which exceeds $100.

24. **remuneration**: compensation, pay, recompense

   Example: The report included information relating to direct remuneration paid to the firm's officials during last year.

25. **residual**: remaining, surviving, left

   Example: Over the years the asset had been depreciated in the amount of $530 so that its residual value was $25.

26. **subsidiary**: auxiliary, subordinate, secondary

   Example: While the subsidiary provides about 60% of the parent company's earnings at present, it is expected to contribute only 45% during the next fiscal year.

27. **variable**: changeable, alterable, fluctuating

   Example: Variable costs included wages for part-time workers.

   a. Athletes were to be __________ reimbursed for their expenses. per diem
      $5 __________ per day

   b. Browne Corp. acquired the __________ company last subsidiary year.
c. _____________ value of the residual
    Remaining asset after depreciation was estimated to be $50.

Exercise IV

INSTRUCTIONS: In the blanks write a synonym for each of the following terms.

1. arrears____________________  behind, deficit, default
2. defer______________________  delay, postpone, retard
3. fiscal______________________  monetary, pecuniary, financial
4. variable____________________ changeable, alterable, fluctuating
5. entity______________________  being, subsistence, existence
6. disbursement_______________  expenditure, outlay, payment
7. debit_______________________  charge, left, lefthand
8. contingent__________________ possible, conditional, provisional
9. per diem____________________ daily, each day, per day
10. liability____________________ obligation, debt, amount owed
11. remuneration_______________  compensation, pay, reward, return
12. subsidiary__________________ auxiliary, secondary, subordinate
13. assets_______________________ belongings, resources, possessions
14. cyclical __________________________ periodic, recurrent, serial
15. allocate __________________________ earmark, allot, apportion, assign
16. default ___________________________ dishonor, fail to pay, forfeit

Exercise V

INSTRUCTIONS: Underscore the term that does not fit with the rest.

1. actual possible contingent conditional actual
2. pay remuneration promissory compensation promissory
3. liability asset debt obligation asset
4. monetary fiscal pecuniary binary binary
5. marginal residual variable changeable residual
6. subsidiary aggregate subordinate auxiliary aggregate
7. debit defray pay expend debit
8. defer delay disburse postpone disburse
9. entity being existence equity equity
10. amalgamate separate consolidate unite separate
11. residual remaining annum left annum
12. increase accrual accumulation cyclical cyclical
13. deficit disbursement expenditure outlay deficit
14. allocate arrears earmark assign arrears
Exercise VI

INSTRUCTIONS: An antonym is a word whose meaning is opposite to that of another word. For each of the terms listed below, give an antonym.

1. affluence__________________ poverty
2. common stock________________ preferred stock
3. inconvertible________________ convertible, variable, changeable, alterable
4. contingent__________________ actual, unconditional, real, impossible
5. amalgamate__________________ separate, divide
6. entity________________________ nonexistence, non-entity
7. variable____________________ constant, static, unchangeable
8. bond premium________________ bond discount
9. arrears_______________________ up to date, current, paid up, ahead

INSTRUCTIONS: Words listed here may be well known to you. Review their meanings, and complete the related exercise to reinforce your understanding of the terms.

LIST OF WORDS:

1. apportion ___________________________ v.t.
   To divide or share out according to a plan.
2. **audit**  
\textit{a'\d i't}  
\textbf{n.}  
A formal or official examination and verification of an account book. A methodical examination and review.  
\textit{a'\d i't}  
\textbf{v.t. and v.i.}  
To examine and check accounts and records.

3. **Certified Public Accountant (CPA)**  
s\textit{ur't\-f\-id' pub'lik \-koun't\-'nt}  
\textbf{n.}  
A person who has received a certificate stating that he has met the requirements of state law to engage in public accounting.

4. **commission**  
\textit{k\-mish'an}  
\textbf{n.}  
A group of people chosen to perform certain duties or tasks, or to take on certain powers. A percentage of the money taken in on sales, given as pay to a salesman or agent.

5. **comptroller**  
\textit{k\-n-tr\-rol'\-\text{e}r}  
\textbf{n.}  
A group of accounts.  
\textbf{ka-mish'an n.}  
A person who has received a certificate stating that he has met the requirements of state law to engage in public accounting.  
\textbf{ka-mish'an n.}  
An official in charge of expenditures; the chief accounting officer of a company. One who exercises control over the financial affairs of a company.

6. **endorser**  
in-d\-\text{o}r's\-\text{e}r  
\textbf{n.}  
One who signs his name to a note, a check, or other similar instrument for the purpose of transferring it to another person.

7. **goodwill**  
good'wil'  
\textbf{n.}  
Good public relations. An intangible asset representing the ability of a business to earn a rate of return on investment greater than the normal rate for other firms in the same line of business.

8. **journalizing**  
j\-\text{ur}'n'l-iz' i\-h  
\textbf{v.t.}  
Entering transactions in a journal.

9. **ledger**  
lej'er  
\textbf{n.}  
A group of accounts.
10. overhead

The general, continuing costs involved in running a business, as of fuel, maintenance, breakage, rent, et cetera. All costs except direct labor and materials.

11. par value

The arbitrary value of stock, bonds, et cetera fixed at the time of issue; face value.

12. petty cash

A cash fund from which small incidental expenses are paid.

13. proprietorship

Ownership. Owner's net investment in business.

Exercise VII

INSTRUCTIONS: Read each sentence marked "A" and derive the meaning, then complete sentence "B" by supplying a synonym for the underscored word/words in sentence "A." Select the synonym for each sentence "B" from the list of words presented below.

apportioned    journalizing
audit          ledger
CPA            overhead
commission     par value
comptroller    petty cash
endorsed       proprietorship
goodwill

1. A. How does the IRS select a tax return to be examined?

B. How does the IRS select a tax return for __________? audit
2. A. Overhead costs should be **divided** among the five departments and departmental margin should be determined.

B. Overhead costs should be _____ **apportioned** among the five departments and departmental margin should be determined.

3. A. The bookkeeper posted the entries to the **group of accounts**.

B. The bookkeeper posted the entries to the **ledger**.

4. A. An **arbitrary price per share** was set on the common stock.

B. A **par value** was set on the common stock.

5. A. Someone stole the **fund that was kept for incidental expenses**.

B. Someone stole the **petty cash**.

6. A. The **accountant who had been certified to do accounting work** prepared the tax return.

B. The **CPA** prepared the tax return.
7. A. Since he was the payee named on the check, Martin wrote his name on the back of it in order to transfer the check to Jones.

B. Since he was the payee named on the check, Martin _________ it on the back.

8. A. The bookkeeper was recording the transactions in the journal.

B. The bookkeeper was ________.

9. A. Under the proposed plan, the position of chief accounting officer of the Currency agency would be eliminated.

B. Under the proposed plan, the position of ____________ of the Currency agency would be eliminated.

10. A. Return on owners' net investment is in the area of 20%.

B. Return on ____________ is in the area of 20%.

11. A. We endorse the House and Senate proposals that would establish a new federal banking group of
several people who will perform specified duties.

B. We endorse the House and Senate proposals that would establish a new federal banking __________. commission

12. A. Not having interest payments keeps the general costs of running a business down.

B. Not having interest payments keeps the __________ down. overhead

13. A. Sponsoring local youth teams and groups creates instant good public relations for the firm.

B. Sponsoring local youth teams and groups creates instant __________ goodwill for the firm.

INSTRUCTIONS: Words listed here may be well known to you. Review their meanings and complete the related exercise to reinforce your understanding of the terms.

LIST OF WORDS:

1. book value n.
   The value of something as shown by the books of account of the business owning it.
2. brokerage  
broˈkәr-ij n.
The business of assisting buyers and sellers of some asset, such as stocks, to negotiate purchases and sales. The fee received by a broker.

3. capital  
kapˈe-təl n.
Wealth (money or property) owned or used in business by a person, corporation, et cetera; the net worth of a business; amount by which the assets exceed the liabilities. Owners' net investment in a business.

4. Certified Public Accountant (CPA)  
sərˈtə-fĭdˈpʌbˈlĭk ə-kounˈtənt n.
A person who has received a certificate stating that he has met the requirements of state law to engage in public accounting.

5. commission  
ˈkә-mishən n.
A group of people chosen to perform certain duties or tasks, or to take on certain powers. A percentage of the money taken in on sales, given as pay to a salesman or agent.

6. creditor  
kredˈi-tәr n.
A person to whom another or others are indebted. One to whom an obligation is due.

7. default  
diˈfɔlt/ v.i.
To fail to do something or be somewhere when required. To fail to make payment when due.

8. draft  
draft n.
A written order issued by one person, bank, firm, et cetera, directing the payment of money to another; check.

draft v.t.
To make a preliminary sketch of or working plans for.
9. **equity**  
*ek'wə-ti*  
n.  
One's net investment. The value of a claim that an individual or a business may have against an asset or a group of assets.

10. **invoice**  
*in'veis*  
n.  
An itemized list of goods shipped to buyer, stating quantities, prices, shipping charges, et cetera.

11. **portfolio**  
*pört-fō'li-ō*  
n.  
A list of the stocks, bonds, and commercial paper owned by a bank or an investor.

12. **recapitalization**  
*rē-kap'ə-t'1-l-i-zā'shən*  
n.  
The act of capitalizing again; changing the capital or capitalization of.

13. **valuation**  
*val'ū-a'shən*  
n.  
The act of determining the value or price of anything; evaluation; appraisal.

14. **voucher**  
*vouch'ər*  
n.  
A paper attesting or serving as evidence; specifically, a receipt or statement serving as evidence of payment of cash.

**Exercise VIII**

**INSTRUCTIONS:**  
1. Review the meanings of the words listed below.

2. Read sentence "A" noting the underscored word; then complete sentence "B" by supplying a definition for the underscored word in sentence "A."

```
book value  
draft
brokerage  
equity
capital  
invoice
CPA  
portfolio
commission  
recapitalization
creditor  
valuation
default  
voucher
```
1. A. Lenders can start exerting pressure well before a borrower threatens to **default** on payment of a loan.

   B. Lenders can start exerting pressure well before a borrower threatens to ________ fail to pay a loan.

2. A. Lawrence Corporation has used the LIFO method of inventory **valuation** for the past five years.

   B. Lawrence Corporation has used the LIFO method of ________ determining the price of the inventory.

3. A. Norris Company's balance sheet stated total stockholders' **equity** at $500,000.

   B. Norris Company's balance sheet stated total stockholders' ________ at $500,000.

4. A. Businessmen presently appear to be more concerned with a market for goods and services than with capital for expansion.
B. Businessmen presently appear to be more concerned with a market for goods and services than with _______ for expansion.

5. A. Three times during the last two years the firm sold common stock below book value in an expansion move to fulfill state franchise obligations.

B. Three times during the last two years the firm sold common stock below ________________ in an expansion move to fulfill state franchise obligations.

6. A. Most companies check every purchase invoice for arithmetical accuracy.

B. Most companies check every purchase ________________ for arithmetical accuracy.

7. A. The most reliable preparers of corporation tax reports are CPAs, lawyers, and employees of
nationally known tax preparation firms.

B. The most reliable preparers of corporation tax reports are lawyers, and employees of nationally known tax preparation firms.

8. A. The pride of the firm's portfolio is the company it helped establish.

B. The pride of the firm's _______ list of securities owned is the company it helped establish.

9. A. How much was the brokerage on the sale of those securities?

B. How much was the _______ fee received by the broker on the sale of those securities?

10. A. Forty industrial giants have been accused of outright bribes or dubious commission payments in connection with overseas sales.
B. Forty industrial giants have been accused of outright bribes or dubious payments to salesmen based on a percentage of sales in connection with overseas sales.

11. A. Two executives admitted that they recovered some of their contributions from the company by falsifying expense vouchers.

B. Two executives admitted that they recovered some of their contributions from the company by falsifying expense payments to salesmen based on a percentage of sales receipts showing that cash had been paid.

12. A. The number of shares which may be issued under the plan is subject to adjustment in the event of recapitalization of the company.

B. The number of shares which may be issued under the plan is subject to adjustment in the event of a change in the capitalization of the company.
13. A. Western Union will deliver a **draft** by messenger for an additional $3 with physical delivery guaranteed within five hours during business hours.

B. Western Union will deliver a

________________________

________________________

for an additional $3 with physical delivery guaranteed within five hours during business hours.

14. A. The firm's **creditors** demanded payment.

B. ________________________
demanded payment.
STUDYING PRONUNCIATIONS

The pronunciations of some business terms may be troublesome if the terms are not well known to you. As you familiarize yourself with the definitions of such terms, their pronunciations will become easy for you. In studying the words in this section of work, pay close attention to the pronunciation of the words as well as to their definitions.

INSTRUCTIONS: 1. Study the pronunciations and meanings of the words listed below. Refer to the list of diacritical markings for help in pronouncing the words correctly.

2. Complete Exercises IX and X.

LIST OF WORDS:

1. ad valorem  
   ad və-ˈlər-əm  adj.
   Descriptive of a tax levied at a rate per cent of the assessed value. A phrase applied to certain duties levied on imports according to their invoiced value.

2. amortization  
   am-ˈər-tə-ˈzaʃən  n.
   The act of writing off (expenditures) by prorating over a fixed period.

3. arbitrage  
   ˈər-bə-ˈtrəzh  n.
   Simultaneous purchase and sale of the same or equivalent security in order to profit from pure discrepancies. A buying of bills of exchange, stock, etc. cetera in one market and selling them at a higher price in another market.
4. comptroller  
*kæn-троl/èr*  
n.  
An official in charge of expenditures; the chief accounting officer of a company. One who exercises control over the financial affairs of a company.

5. conglomerate  
*kæn-glom/èr-it'/  
n.  
A business firm that engages in diversified activities. A corporation seeking to diversify its operations by acquiring enterprises in widely varied industries. A multi-corporation made up of many smaller entities.

6. contingent  
*kæn-tин'/jәnt*  
adj.  
That may or may not happen; possible.

7. cyclical  
*sи'/kli-k'л*  
adj.  
Having the nature of a cycle; moving or occurring in cycles. Periodic.

8. debenture  
*di-bен'/чәr*  
n.  
An interest-bearing bond issued with no specific pledge of property as collateral for the loan.

9. indenture  
*in-den'/чәr*  
n.  
A written contract or agreement that describes in detail the terms of a loan.

10. liquidity  
*li-kwid'/ә-tи*  
n.  
State or quality of being readily convertible into cash. Ratio of cash to assets.

11. per diem  
*pәr диәm*  
adj.  
By the day; daily.

12. remuneration  
*ri-mущ/на-ра'шәn*  
n.  
Pay, recompense, compensation.

13. scrip  
*skrip*  
n.  
A certificate representing the right to exchange for fraction of shares of stocks, money, land, et cetera.

14. subsidiary  
*sәb-sид'/i-ери*  
adj.  
Acting as a supplement; auxiliary, especially in a secondary or subordinate capacity.
15. tangible  

\[ \text{tan}^/\text{j}a^/-b^/l \]  
adj.  
That can be touched; that can be felt by touch; having actual form and substance. That can be appraised for value; as tangible assets.

Exercise IX

INSTRUCTIONS: Write the letter of the correct pronunciation for each word listed below.

___1. scrip  
\begin{align*} 
a. & \text{skrip} \\
b. & \text{skrip} \\
c. & \text{skrep} \\
\end{align*}

___2. comptroller  
\begin{align*} 
a. & \text{kən-trəl}^{/\text{ə}r} \\
b. & \text{komp-trəl}^{/\text{ə}r} \\
c. & \text{kom-trəl}^{/\text{ə}r} \\
\end{align*}

___3. per diem  
\begin{align*} 
a. & \text{pər d̬iˌəm} \\
b. & \text{pər d̬iˌəm} \\
c. & \text{pər d̬iˌəm} \\
\end{align*}

___4. ad valorem  
\begin{align*} 
a. & \text{ad val}^{/\text{o}ˌəm} \\
b. & \text{ad vəˈlərəm} \\
c. & \text{ad vəˈlərəm} \\
\end{align*}

___5. cyclical  
\begin{align*} 
a. & \text{sɪˌklɪkəl} \\
b. & \text{sɪˌklɪkəl} \\
c. & \text{sɪkˌlɪkəl} \\
\end{align*}

___6. amortization  
\begin{align*} 
a. & \text{əmərˈtɪ-zəˈʃən} \\
b. & \text{əmərtˈe zəˈʃən} \\
c. & \text{əmərˈtɪ-zəˈʃən} \\
\end{align*}

___7. subsidiary  
\begin{align*} 
a. & \text{səbˌsidˈeəri} \\
b. & \text{səbˌsidərə} \\
c. & \text{səbˌsiˌdərə} \\
\end{align*}
Exercise X

INSTRUCTIONS: For each of the following terms, one pronunciation is given. If that pronunciation is correct, circle C; if it is incorrect, circle I.

1. conglomerate kan-głom/ər-it C I C
2. comptroller kŏmp-trŏl/ər C I I
3. liquidity li-kwid/a-ti C I C
4. arbitrage ār-ba-trāzh′ C I C
5. per diem pĕr dim C I I
6. tangibles tan/jə-b′ls C I C
7. subsidiary sab-si-dary C I I
8. ad valorem ad val′ə-am C I I
9. debenture di-ben′chĕr C I C
10. scrip skrĭp C I I
11. amortization am/ər-ta-zā′shən C I C
12. cyclical sĭ/kli-k′l C I C
13. remuneration ri-mū′nə-rā′shən C I C
14. contingent kăn-tĭn′jent C I I
15. indenture in-den′chĕr C I C
ADDITIONAL ACCOUNTING AND FINANCE TERMINOLOGY

The words to be studied in this section of work may be less familiar to you or completely unknown to you for one reason or another. As you learn their meanings, notice also their correct pronunciations and spelling.

INSTRUCTIONS: 1. Study carefully the definition of each word listed.

2. As you read the brief discussions of the terms and their meanings, note the context or business situation in which each term is likely to be used.

3. Complete the related exercises.

LIST OF WORDS:

1. ad valorem
   adˈva-lər-əm adj.
   Descriptive of a tax levied at a rate per cent of the assessed value. A phrase applied to certain duties levied on imports according to their invoiced value.

2. amortization
   am-ər-tə-zāˈshən n.
   The act of writing off (expenditures) by prorating over a fixed period.

3. arbitrage
   ər-bə-trāˈzhə n.
   Simultaneous purchase and sale of the same or equivalent security in order to profit from pure discrepancies. A buying of bills of exchange, stocks, et cetera in one market and selling them again at a higher price in another market.
4. assessment  /ə-ˌsɛs-ˈmɑnt/ n.
A charge, tax, or special payment, imposed at an established rate on property, et cetera.

5. cash flow  /kɑʃˈflɔ/ n.
The excess of the cash flowing in from revenue over the cash flowing out for expenses.

6. comptroller  /ˈkɑntrələr/ (controller) n.
An official in charge of expenditures; the chief accounting officer of a company. One who exercises control over the financial affairs of a company.

7. conglomerate  /ˈkæŋɡlərət/ n.
A business firm that engages in diversified activities. A corporation seeking to diversify its operations by acquiring enterprises in widely varied industries. A multi-corporation made up of many smaller entities.

8. depletion  /di-ˈplɛʃən/ n.
The decrease in value of metal ores and other minerals because of exhaustion or consumption.

A decrease in value of property through wear, deterioration, or obsolescence.

10. devaluation  /di-ˈvælʃən/ n.
A lessening of value.

11. graduated tax  /ˈɡrædʒətɪd tæks/ n.
A tax or assessment arranged into grades according to amount or size; a tax arranged into gradations.

12. hedging  /ˈhɛdʒɪŋ/ v.t.
Safeguarding oneself from loss on (a risk) by making counterbalancing arrangements or investments.

13. liquidation  /ˈliŋkiˌdeɪʃən/ n.
The process of selling the assets, paying the liabilities, and distributing the remaining cash to the owners of the business.
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>14. liquidity</td>
<td>li-kwid'α-ti n.</td>
<td>The state or quality of being readily convertible into cash. Ratio of cash to assets.</td>
</tr>
<tr>
<td>15. merger</td>
<td>mûr/ jær n.</td>
<td>The combination or consolidation of several companies, corporations, et cetera in one, so that only one company remains while the others are legally dissolved.</td>
</tr>
<tr>
<td>16. prorate</td>
<td>prô' rät' v.t.</td>
<td>To divide or distribute proportionally.</td>
</tr>
<tr>
<td>17. scrip</td>
<td>skrip n.</td>
<td>A certificate representing the right to exchange for fraction of shares of stocks, money, land, et cetera.</td>
</tr>
<tr>
<td>18. surtax</td>
<td>sûr'taks n.</td>
<td>An extra tax on something already taxed; especially a graduated tax on the amount by which an income exceeds a given figure.</td>
</tr>
<tr>
<td>19. tangible</td>
<td>tan'jä-b'l adj.</td>
<td>That can be touched; that can be felt by touch; having actual form and substance. That can be appraised for value; as tangible assets.</td>
</tr>
<tr>
<td>20. trust</td>
<td>trust n.</td>
<td>An estate or property under the charge of a trustee. A combination of corporations in the same industry or allied industries, usually the largest producers, in which the stockholders turn over their stock to a board of trustees, who issue trust certificates to them and pay them dividends: the purpose of trusts is to reduce costs of production, control prices, and eliminate competition, thereby establishing a monopoly and increasing profits; they have been declared illegal in the United States.</td>
</tr>
<tr>
<td>21. valuation</td>
<td>val'ū-ā shən n.</td>
<td>The act of determining the value or price of anything; evaluation; appraisal.</td>
</tr>
</tbody>
</table>
 TERMS WHICH MEAN A LOWERING OF VALUE

INSTRUCTIONS: 1. Review the meanings of the words listed below.

2. To check your understanding of the meanings of these terms, answer the questions which pertain to information discussed in the paragraphs below.

amortization depreciation
depletion devaluation

Notice that all four of these words refer to a lowering in value; however, they do not have precisely the same meanings. The following paragraphs explain briefly some of the differences among the terms.

Amortization is the write-off, or lowering the amount, of expenses already incurred by prorating them (dividing them proportionately) over a period of time. Discounts on bonds payable and expenses incurred in organizing a business are examples of types of costs whose write-off will be prorated, or divided, over a number of years. Thus, you may read that

Company officials adopted a five-year amortization plan for costs incurred in organizing the corporation.
Depletion and depreciation both refer to lowering the book value of assets. Depletion refers specifically to exhaustion of metal ores and other minerals. The sentence that follows illustrates the use of the term, depletion.

The oil depletion percentage was set at 22%.

Depreciation, on the other hand, refers to a decrease in assets such as plant equipment, building, trucks, et cetera. You may see the term used frequently in this manner.

Annual depreciation on the typewriter was figured on a five-year straight-line basis with estimated residual value of $50.

Examples of the use of the term, devaluation, a lessening of value, are

France's decision to pull out of the European joint currency float was viewed by many as a de facto devaluation of the franc.

Arabs are hesitant about long-term money investments, having often been burned in the past by devaluations.

Related questions:

1. Amortization, depletion, depreciation, and devaluation are terms which refer to decreasing the value of something. Which term would be used in referring to prorating a bond discount over a period of time?

   amortization

2. Which one of these terms would be used in speaking of a decrease in value of a building?

   depreciation
TAX TERMINOLOGY

INSTRUCTIONS: 1. Review the meanings of the words listed below.

2. Study the paragraphs and answer the related questions.

ad valorem  surtax
assessment  valuation
graduated tax

A valuation must be placed on real estate property and personal property for tax purposes. This valuation is called the appraised, or assessed, value of the property. It is lower than the actual amount paid for the property because the appraised value is stated at a percentage of the real value of the property. The tax assessment on the property is based on the appraised value of the property rather than on the real value. Taxes are then figured at so much per dollar of assessed value.

A property tax is a type of ad valorem tax. An ad valorem tax is a tax made at an established percentage of the assessed value. On ad valorem taxes the tax base is measured in terms of value, and the rate is a per cent of value or cents per dollar. In addition to property taxes, other ad valorem taxes are sales taxes, stated at a percentage of each dollar of sales, income taxes, and excise taxes on certain imports. Any tax that is stated as a percentage of an invoice price is an ad valorem tax.
Related Questions:
1. Two examples of ad valorem taxes are ___________ and ___________. property, sales, income, and certain excise taxes

2. Property tax assessments are based on the ___________ appraised value of the property.

A graduated tax is a tax arranged into gradations or increments. For example, incomes are taxed on a graduated basis. Taxable incomes are categorized into brackets, or grades, depending on the size of the income. As taxable income rises, the income tax due on the income also increases; thus, the income tax is said to be graduated.

An extra tax on incomes which exceed a certain amount is known as a surtax. For instance, corporations which earn a taxable income above $25,000 must pay an extra tax, surtax, on the excess.

Related Questions:
1. An income tax is called a graduated tax because as the taxable income increases, the income tax due ___________ also increases

2. If a corporation earns a taxable income above $25,000, it pays a ___________ on the excess. surtax (extra tax)
HEDGING AND ARBITRAGE TRANSACTIONS

Hedging and arbitrage are terms referring to market transactions. Hedging is an attempt to protect oneself against financial loss by making counterbalancing investments or arrangements. There are several ways to hedge; even the purchase of an insurance policy is a hedge against loss. One of the most common methods of hedging in market transactions is to trade in futures contracts. A brief discussion of trading in futures contracts is presented in the next paragraph.

Products such as grain and cotton are bought and sold on a commodity exchange which is similar to a stock exchange. At the commodity exchanges contracts for future delivery of listed commodities are bought and sold. For instance, a flour manufacturer may buy X number of bushels of wheat for processing and at the same time sell a futures contract to deliver the same number of bushels of wheat at a certain price in the future when the flour is ready. Should the price of the wheat go up or down, the gain or loss on the futures contract will be offset by a larger or smaller profit on the flour.

Arbitrage transactions are another means of hedging. In arbitrage dealings the investor will buy an asset in one market and sell it at the same time in another market. To make such a transaction profitable, of course, the sale
price must be higher than the purchase price. One example of an arbitrage transaction is the simultaneous purchase and sale of a currency, such as United States dollars, in two different foreign exchange markets. For instance, if dollars can be bought in New York and at the same time sold in London for a higher price, then the investor profits from the price discrepancy.

**Related questions:**

1. There are several ways an investor may practice hedging, or protecting himself against financial loss. One of those means is by _______.

2. Persons engaging in arbitrage will buy an asset in one market and simultaneously _________.

**Exercise XI**

**INSTRUCTIONS:** 1. Review the definitions of the words listed below. You will need to know their meanings before proceeding with your work.

2. Fill in the blanks with words from the list that best complete the sentences.

- arbitrage
- cash flow
- comptroller
- conglomerate
- liquidation
- liquidity
- merger
- scrip
- tangible
- trust
- wildcat
- yield
1. Members may be involved in simultaneous purchase and sale of an asset or could be simply attempting to enhance an orderly market.

2. To increase its liquidity ratio of cash to assets, the company is concentrating on increasing the funds it generates from operations.

3. After the stock split, each stockholder received scrip certificate for claim to additional shares of stock which was to be exchanged later.

4. Before joining Lakewood National Bank, Smith was vice president and chief financial officer of First comptroller (controller) National Bank of Yalewood County.

5. News that Samanthy Industries is acquisition hunting is yet another indication that many of the conglomerates made up of varied industries are alive and well.
6. Equipment is a \underline{tangible} something that can be touched asset.

7. \underline{yields} on long-term Returns

interest-bearing securities declined in that year.

8. The firm was in the process of \underline{liquidation}

converting all assets to cash and going out of business

9. Four big companies invested in the \underline{wildcat}

endeavor.

10. The corporation has been putting back into the country more money than it has been earning there with the result that its net \underline{cash flow}

excess of cash from incoming revenue over cash outgoing for expenses from Peru has been negative.

11. A taxpayer can make the payment into the escrow or \underline{trust}

assets under the charge of a trustee account.
12. A ___________ can be consummated merger consolidation only after a corporation's shareholders approve it.

Exercise XII

INSTRUCTIONS: Indicate whether or not the statements below are true or false by writing T or F in the blanks at the left.

____ 1. Depletion refers to a decline in value of a fixed asset due to wear or obsolescence. F
____ 2. Scrip is a certificate representing a claim to shares of stocks, money, et cetera. T
____ 3. Hedging is a means of safeguarding oneself from financial loss. T
____ 4. A surtax on taxable income is an extra tax assessed on taxable income exceeding a certain amount. T
____ 5. Assessment means an asset that can be touched. F
____ 6. Selling all the assets, paying the liabilities, and distributing the cash is known as liquidity. F
____ 7. Dividing expenses proportionately over a period of time is called prorating. T
____ 8. Cash flow is the difference between cash incoming from revenue over cash going out for expenses. T
____ 9. Return on investment is known as a trust. F
____ 10. An appraisal of property and a valuation of property mean the same thing. T
Exercise XIII

INSTRUCTIONS: In the blanks write the letter of the definition on the right that best fits the term on the left.

__ 1. ad valorem tax  
__ 2. arbitrage  
__ 3. conglomerate  
__ 4. depletion  
__ 5. graduated tax  
__ 6. liquidity  
__ 7. merger  
__ 8. tangible  
__ 9. trust  
__10. wildcat

A. Consolidation of several companies into one company.  
B. Property under the charge of a trustee.  
C. Return on investment.  
D. A tax levied at a per cent of the assessed value.  
E. A tax arranged according to amount or size.  
F. Simultaneously buying and selling the same security in two different markets.  
G. Decrease in value of metal ores and other minerals.  
H. Decrease in value of equipment.  
I. Ratio of cash to assets.  
J. Having actual form that can be touched.  
K. Financially risky.  
L. A multi-corporation engaging in diversified operations.

Exercise XIV

INSTRUCTIONS: In the blanks write the letter of the term that is closely related to each numbered item.

___ 1. depletion
   a. arbitrage  
   b. merger  
   c. exhaustion
2. prorate
   a. allocate
   b. consolidate
   c. liquidate

3. scrip
   a. certificate
   b. liquidity
   c. surtax

4. ad valorem
   a. cash flow
   b. percentage of stated value
   c. an estate

5. liquidation
   a. conglomerate
   b. selling assets
   c. prorating expenses

6. comptroller
   a. surtax
   b. arbitrage
   c. chief accountant

7. tangible
   a. touchable
   b. unreal
   c. graduated

8. amortization
   a. financial risk
   b. write-off of expenses
   c. appraisal of property

9. hedging
   a. assessment
   b. lowering of value
   c. arbitrage

10. yield
    a. extra tax
    b. cash flow
    c. return on investment
ACCOUNTING/FINANCE PUZZLE

INSTRUCTIONS: Hidden words fitting definitions given below appear forward, backward, up, down, or diagonally in the puzzle. Circle each business word as it is located. A correct solution to the puzzle is presented below the last clue. (Number 0 is presented as an example.)

0. FOB. Shipping terms used in indicating who will pay transportation charges for merchandise.

1. A tax levied at a rate per cent of the assessed value.

2. The act of writing off (expenditures) by prorating over a fixed period.

3. A buying of bills of exchange, stocks, et cetera in one market and selling them again at a higher price in another market.

4. A charge, tax, or special payment, imposed at an established rate on property, et cetera.

5. The excess of cash flowing in from revenue over the cash flowing out for expenses.

6. A multi-corporation made up of many smaller entities engaging in diversified activities.
7. The decrease in the value of metal ores and other minerals because of exhaustion or consumption.

8. Safeguarding oneself from loss on (a risk) by making counterbalancing arrangements or investments.

9. Ratio of cash to assets.

10. The combination or consolidation of several companies, corporations, et cetera in one, so that only one company remains while the others are legally dissolved.

11. A cash fund from which small incidental expenses are paid.

12. A list of the stocks, bonds, and commercial paper owned by a bank or an investor.

13. To divide or distribute proportionally.

14. An extra tax on something already taxed; especially a graduated tax on the amount by which an income exceeds a given figure.

15. A temporary paper to be exchanged for stock certificates, money, goods, land, et cetera.

16. That can be touched; having actual form and substance. That can be appraised for value.

17. Unsound or financially risky.

18. The amount produced; return on labor, investment, et cetera.
SOLUTION TO PUZZLE
Exercise XV

INSTRUCTIONS: For each of the following pairs of words, write "S" in the blank if the words have the same meaning and write "O" in the blank if the words are opposite (contrasting) in meaning.

___ 1. affluent--poor  
___ 2. apportion--allocate  
___ 3. contingent--real  
___ 4. per diem--daily  
___ 5. deficit--shortage  
___ 6. debit--credit  
___ 7. arrears--behind  
___ 8. subsidiary--auxiliary  
___ 9. fiscal--monetary  
___10. inconvertible--changeable  
___11. variable--static  
___12. remuneration--pay

Exercise XVI--Review

INSTRUCTIONS: For each of the sentences below, circle the letter of the term which best completes the sentence.

1. Carrying amount on stocks, bonds, and capital assets is known as
   (a) par value  (b) book value  (c) recapitalization  (d) inventory
2. Decreases in value of fixed assets which occur because of use and obsolescence are called
   (a) depletion   (b) devaluation  (c) depreciation   (d) amortization  (c)

3. The proprietor's investment (or net worth) in his business firm is known as
   (a) capital   (b) liability   (c) principal   (d) collateral  (a)

4. An intangible asset representing the ability of a business to earn a rate of return on investment greater than the normal rate for other firms in the same line of business is called good public relations or
   (a) surtax   (b) goodwill   (c) premium   (d) entity  (b)

5. The right of a stockholder to maintain the same fractional interest in a corporation by purchasing a proportionate number of shares of a new issue of stock is known as
   (a) redemption right   (b) par value   (c) contingent right   (d) preemptive right  (d)

6. A corporation's net loss may be known as a/an
   (a) accrual  (b) deficit  (c) asset  (d) arrears  (b)

7. The chief accounting officer of a firm is a
   (a) creditor  (b) voucher  (c) ad valorem  (d) comptroller  (d)

8. A postponement of the recognition of an expense already paid or of a revenue already received is a
   (a) deficit  (b) deferral  (c) consignment  (d) debenture  (b)
9. An auxiliary corporation owned and controlled by another corporation is known as a
   (a) subsidiary  (b) conglomerate  
   (c) SEC  (d) comptroller  (a)

10. Interest-bearing bonds issued with no specific pledge of property as collateral for the loan are
    (a) debentures  (b) indentures  
    (c) cyclicals  (d) mortgage notes payable  (a)

11. A person who signs his name on the back of a check or other similar instrument for the purpose of transferring it to another party is an
    (a) auditor  (b) equity  
    (c) inconvertible  (d) endorser  (d)

12. The state of being readily convertible into cash is known as
    (a) cash flow  (b) maturity  
    (c) liquidity  (d) promissory  (c)

13. To divide or distribute proportionately is to
    (a) prorate  (b) reimburse  
    (c) surtax  (d) yield  (a)

14. A certificate representing the right to exchange for fraction of shares of stocks, money, land, etcetera is called
    (a) residual  (b) portfolio  
    (c) collateral  (d) scrip  (d)

15. Buying of bills of exchange, stocks, etcetera, in one market and selling them again at a higher price in another market is called
    (a) brokerage  (b) recapitalization  
    (c) arbitrage  (d) tangible  (c)
APPENDIX C

MAILING TO JUDGES

List of Judges

Stephen H. Archer (Finance)
Willamette University
Salem, Oregon

Gordon F. Culver (Business Education)
University of Nebraska
Lincoln, Nebraska

Paul L. Gerhardt (Accounting)
Administrative Secretary
American Accounting Association
Sarasota, Florida

Joseph W. McGuire (Social Economics)
University of California
Irvine, California

Louis C. Nanassy (Business Education)
Montclair State College
Upper Montclair, New Jersey

Eleanor B. Schwartz (Marketing)
Associate Dean
College of Business Administration
Cleveland State University
Cleveland, Ohio

Jean Voyles (Business Communications)
Georgia State University
Atlanta, Georgia
September 6, 1976

Name
School
Address

Dear

Is specific instruction in business vocabulary needed in the college classroom? Do students learn as much terminology while they study business subject matter as they learn when specific attention is directed toward vocabulary development?

These are among the questions that will be investigated in a research study to be conducted during the 1976-77 school year at several universities in the south Arkansas area. Teaching materials will be developed for specific instruction in the terminology shown on the enclosed high-importance word list, and two teaching techniques will be utilized.

Will you participate in this research study by helping to validate the test instrument? Simply indicate on the checklist whether or not each item on the test is an acceptable one for measuring student knowledge of the words on the high-importance word list. An addressed envelope is enclosed for your convenience in returning the completed checklist.

Sincerely yours,

Mrs. Rosemary Vance
Assistant Professor of Office Administration

Enclosures
Business Vocabulary Test Questionnaire

For each item on the test, please indicate whether or not the item is appropriate for a test on the high-importance vocabulary list by placing a checkmark in either the "yes" or the "no" column.

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I would like to receive a summary of the results of this study.  

Yes___  No___
SUMMARY OF THE STEPS IN THE DEVELOPMENT OF
A HIGH-IMPORTANCE BUSINESS VOCABULARY

An informal research study conducted over a period of years at North Texas State University by Dr. W. E. Perkins produced the list of high-importance business terms. A preliminary list of 800 business terms was prepared from a thorough search through textbooks, indexes, word lists, and business dictionaries. Words selected were those considered to be significant. Words thought to be known by most business students were omitted from the list. After a panel of six business teachers screened the list to about half the original number of words, it was submitted to a group of 65 teachers at North Texas State University; the 30 teachers who responded deleted some words and added others. An adjusted list of terms was then screened by the panel of six, and a revised list of approximately 365 words was sent to 100 businessmen in the Dallas/Fort Worth area, 74 of whom responded. Combining the professors' and businessmen's responses resulted in a list of approximately 400 business words and terms considered to be of high importance.
September 27, 1976

Name
School
Address

Dear

During the 1976-77 school year, a research study investigating the need for instruction in business vocabulary will be conducted. Teachers in several universities in the south Arkansas area will participate in this study by using two methods of teaching vocabulary in business communications classes. Specific words to be taught in the study are those on a list of high-importance words developed by Dr. W. E. Perkins of North Texas State University.

Part of the research involves development of a test instrument which can be used to measure student knowledge of selected business terminology. Your help is needed in validating the items on this test.

Will you take part in this study? Simply indicate on the enclosed questionnaire whether or not each item on the test is a valid one for measuring student knowledge of the words on the high-importance list. An addressed envelope is enclosed for your convenience in returning the completed questionnaire.

Sincerely,

Mrs. Rosemary Vance
Assistant Professor of
Office Administration

Enclosures
APPENDIX D

BUSINESS VOCABULARY TEST

Part I

Directions: Write the letter of the word that fits the definition given.

1. A minor offense
   A. Litigation  C. Misdemeanor
   B. Simulation  D. Stipend

2. A few very large corporations in control of an industry
   A. Franchise  C. Oligopoly
   B. Monopoly  D. Conglomerate

3. If a document is transferrable, it is said to be
   A. Negotiable  C. Abstract
   B. Illicit  D. Tangible

4. One who accepts liability by affixing his signature
   A. Abstainer  C. Plaintiff
   B. Guarantor  D. Itinerant

5. The owners' net investment in a business
   A. Capital  C. Input
   B. Apportion  D. Principal

6. A worker's length of service
   A. Legacy  C. Hierarchy
   B. Retrospect  D. Seniority

7. All costs except direct labor and materials
   A. Indentures  C. Loss leaders
   B. Overhead  D. Yields
8. The total of all goods and services produced in a country in a year
   A. Commodities          C. Mercantilism
   B. Projections           D. GNP

9. Legal action brought against a debtor
   A. Foreclosure           C. Estoppel
   B. Commutation           D. Moratorium

10. A restraining court order
    A. Chattel               C. Encumbrance
    B. Injunction            D. Template
Part II

Directions: Write the letter of the definition on the right that matches the word on the left.

1. Actuary  A. A landlord.
2. Adjustor  B. One who exercises control over the financial affairs of a company.
3. Beneficiary  C. A person appointed to carry out the provisions of another's will.
5. Creditor  E. A verifier of signatures.
7. Executor  G. One to whom an obligation is due.
8. Fiduciary  H. One who settles and compensates.
9. Lessee  I. One who examines the financial records of another.
12. Vendor  L. A person who holds something in trust for another.

M. An insurer.
N. One who runs away and hides.
O. A tenant.
P. A recipient of certain advantages.
Part III

Directions: Write the letter of the term closest in meaning to the word given.

1. Synopsis
   A. Syllabus
   B. Speculation
   C. Summary
   D. Symposium

2. Affidavit
   A. Oath
   B. Mortgage
   C. Mandate
   D. Injunction

3. Insolvent
   A. Transient
   B. Guaranteed
   C. Sanctioned
   D. Bankrupt

4. Cartel
   A. Merger
   B. Trust
   C. Hierarchy
   D. Joint venture

5. Liabilities
   A. Debts
   B. Duties
   C. Overhead
   D. Proprietorship

6. Aggregate
   A. Premium
   B. Ultimatum
   C. Total
   D. Quota

7. Voucher
   A. Referendum
   B. Collateral
   C. Ledger
   D. Receipt

8. Disbursement
   A. Foreclosure
   B. Expenditure
   C. Rebuttal
   D. Proxy

9. Merger
   A. Dispossession
   B. Matrix
   C. Consolidation
   D. Reversion
10. Franchise
   A. Boycott
   B. Easement
   C. Jobber
   D. Privilege

11. Warranty
   A. Binder
   B. Guarantee
   C. Endowment
   D. Option

12. Stipend
   A. Salary
   B. Fringe benefit
   C. Monetization
   D. Redemption
Part IV

Directions: Write the letter of the definition on the right that matches the word on the left.

1. Allocate  A. To act for someone else.
2. Amortize   B. To compensate for a loss sustained.
3. Audit      C. To delay or put off until a future time.
4. Defer      D. To cancel or render void.
5. Diversify  E. To write off gradually over a period of time.
6. Forecast   F. To agree to adopt.
7. Indemnify  G. To pay back money spent.
8. Ratify     H. To prepare an itemized listing of assets.
9. Rescind    I. To accumulate since the last transaction.
10. Reimburse J. To examine and verify accounts and records.
11. Stabilize K. To set apart for a purpose; to distribute.
12. Subsidize L. To support.

M. To vary.
N. To get money by violence, threats, or misuse of authority.
O. To predict or plan in advance.
P. To keep from fluctuating or changing.
Part V

Directions: Write the letter of the term opposite in meaning to the word given.

1. Cyclical
   A. Periodic
   B. Continuous
   C. Marginal
   D. Variable

2. Irrevocable
   A. Inconvertible
   B. Alterable
   C. Empirical
   D. Obsolescent

3. Indict
   A. Nullify
   B. Interpolate
   C. Postulate
   D. Vindicate

4. Severance
   A. Scrupulous
   B. Joining
   C. Preemptive
   D. Utilitarian

5. Laissez-faire
   A. Goodwill
   B. Habeas corpus
   C. Interference
   D. Commission

6. Spurious
   A. Random
   B. Genuine
   C. Abstract
   D. Scarcity

7. Recession
   A. Cyclical
   B. Depression
   C. Upswing
   D. Inflation

8. Mutual
   A. Non-participating
   B. Brokerage
   C. Equitable
   D. Par value
Part VI

Directions: Write the letter of the word that does not fit with the rest.

1. A. Fraudulent  C. Escheat  
   B. Spurious  D. Counterfeit

2. A. Subsidiary  C. Subordinate
   B. Aggregate  D. Auxiliary

3. A. Clientele  C. Patrons
   B. Tangibles  D. Customers

4. A. Usury  C. Discretionary
   B. Exorbitant  D. Expensive

5. A. Misdemeanor  C. Felony
   B. Tort  D. Chattel

6. A. NLRB  C. FORTRAN
   B. COBOL  D. EDP

7. A. Subpoena  C. Implicate
   B. Indemnify  D. Indict

8. A. Libel  C. Purjury
   B. Extortion  D. Nepotism

9. A. Waybill  C. Surtax
   B. Tariff  D. Duty

10. A. Résumé  C. Vita
    B. Dossier  D. Scrip

11. A. Profitable  C. Promissory
    B. Lucrative  D. Remunerative

12. A. Binary  C. Financial
    B. Fiscal  D. Monetary

13. A. Partner  C. Associate
    B. Colleague  D. Subordinate

14. A. FTC  C. FOB
    B. FCC  D. SEC
Name__________________________

BUSINESS VOCABULARY TEST

Answer Sheet

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APPENDIX E

GUIDE SHEETS FOR TEACHERS OF GROUP A,
GROUP B, AND GROUP C

General Guide Sheets for Teachers Participating
in Vance Research Study

1. A Brief Description of the Study and Its Purposes. The
study is designed to determine the relative effectiveness
of two methods of teaching business vocabulary. To
carry out this purpose, three groups of business com-
munications students will participate.

Group A will be those classes using self-instructional
materials developed specifically for this study. The
materials include word lists showing definitions
of the words, their pronunciations and parts of
speech, and a variety of exercises to help students
learn to use the selected business terms. Correct
answers to all exercises are shown on the materials
so that students will have immediate knowledge of
the correctness of their responses. Three classes
will be using these materials.

Group B students will develop a vocabulary notebook
showing the definitions of the words to be studied,
their pronunciations and parts of speech, and sen-
tences illustrating the use of each word in context.
Teachers using this method will give four lectures
of approximately 15 minutes in length each. These
lectures are intended to make students more aware
of word parts--prefixes, suffixes, and root words.
The lectures are not designed to give an in-depth
study of all prefixes and suffixes as only selected
ones will be studied. Three classes will use this
method.

Group C will be comprised of four classes which
will act as a control group. This group of students
will receive no specific instruction in business
vocabulary in the business communications course.
2. **About the Business Terms Selected for Study.** An informal research study conducted over a period of years at North Texas State University by Dr. W. E. Perkins produced a list of high-importance business terms. A preliminary list of 800 business terms was prepared from a thorough search through textbooks, indexes, word lists, and business dictionaries. Words selected were those considered to be significant. Words thought to be known by most business students were omitted from the list.

After a panel of six business teachers screened the list to about half the original number of words, it was submitted to a group of 65 teachers at North Texas State University; the 30 teachers who responded deleted some words and added others. An adjusted list of terms was then screened by the panel of six, and a revised list of approximately 365 words was sent to 100 businessmen in the Dallas/Fort Worth area, 74 of whom responded. Combining the professors' and businessmen's responses resulted in a list of approximately 400 business words and terms considered to be of high importance.

3. **Length of Study.** The study of the materials is designed to last ten weeks during the Spring of 1977.

4. **Telling Students about Participation in Study.** All students are to be told that they are participating in a research study. Details of what each group should be told are given on the instruction sheets for each method.

5. **Pretest and Posttest.** A business vocabulary test based on the list of high-importance business terms has been developed for this study. The 68 items on this test have been validated by seven business teachers chosen from among national leaders in various areas of business study. This test has also been checked for reliability.

The same test will be used as a pretest and posttest, but students are not to be told that the same test will be used. Each participating teacher will give this test to each class used in the study at the beginning of the study and again at the end of the ten weeks.

Answer sheets will be provided for this test. Please instruct each student to sign his name on the answer sheet. The test will probably take an average of 30 minutes for completion, although some students may complete it in 20 minutes while others may need 40 minutes. This is not a timed test, so please allow students plenty of time to give considerate attention to their answers.
6. **Bi-weekly Tests.** At the end of every two weeks during the study, teachers of group A and group B are to administer a short 20-25 point vocabulary test on words studied during the two-week period. These tests can probably be completed within 15 minutes. Have students put their answers for these test items on the test paper itself and be sure that each student signs his test. Please mail these tests to me in the addressed envelope provided for this purpose.

I will grade these tests and return them to you. Please distribute these graded tests to students so that they will know whether or not they responded correctly to the test items.

7. **Absences.** For each student participating in this study, please keep an accurate record of absences. If a student is absent on the day of a test, please allow him to make up the test when he returns to class.
FURTHER INSTRUCTIONS FOR USE WITH GROUP A--CLASSES

COMPLETING SELF-INSTRUCTIONAL MATERIALS

1. Telling Students about Participating in the Study.
Students in each group are to be told that they are participating in a research study. Group A students should be told the details of their participation when you distribute the first set of self-instructional study materials.

You may wish to use the information under #2 on page 1 to acquaint them with the background of the list of high-importance business terms. Be sure that students are told that these words are included on the list for study because research involving business educators and businessmen indicated that the terms are important ones for business students to know.

For information on specific responsibilities of students taking part in the study as group A, use the paragraphs below as you feel necessary.

2. Distributing and Collecting Study Materials. There are five sets of instructional materials. The first set of materials is to be distributed to students on the next class day after the pretest has been given. Thereafter, an additional set of materials is to be distributed every two weeks. Be sure students understand this procedure. Also tell students that they will be tested at the end of each two weeks on words assigned for study during that period.

At the end of each two weeks, collect the set of materials students have been completing, give the short test for this unit, and distribute the next set of materials. Follow this procedure through the study. You may answer any student questions about using the materials but please do not give any class instruction on them.

3. Description of Self-Instructional Materials. Materials to be used in group A are designed for independent study by the users. They contain word lists including definitions, parts of speech, and pronunciations. The definitions given are those used commonly in the business world.
A variety of exercises is provided to aid students in learning the selected business terminology. Correct answers to exercises are included for immediate student knowledge of correct responses.

If a student has trouble completing an exercise, he is permitted to refer to introductory paragraphs which discuss the terminology and to review word lists for that section.

On the average, students are being asked to study approximately 40 business terms per week of this study.

As an aid for studying the terms, words are grouped according to areas of business shown below:

- Unit I--Accounting and Finance
- Unit II--Economics, Marketing, and Transportation
- Unit III--Management, Communications, Insurance, Computer Science and Statistical Analysis
- Unit IV--Law
- Unit V--General Business

4. List of Diacritical Markings. A list of diacritical markings is provided to each student participating in group A. Please ask students to detach this list of markings and retain it throughout the study to assist in learning the accurate pronunciations of the business terms being studied.

5. Giving Credit for Participation in this Business Vocabulary Study. Teachers are asked to give credit on the final Business Communications grade for participation in this research. Completion of the self-instructional materials and scores on bi-weekly tests and the posttest should receive credit.
FURTHER INSTRUCTIONS FOR USE WITH GROUP B--CLASSES

USING NOTEBOOK AND TEACHER LECTURES APPROACH

1. **Telling Students about Participating in the Study.** Students in each group are to be told that they are participating in a research study.

   In group B an introductory lecture is provided for use in telling students about the study and their participation in it.

2. **Description of Word Lists.** There are five lists of words to be studied. Each list includes definitions, parts of speech, and pronunciations. The definitions given are those used frequently in the business world.

   Words are listed for study according to areas of business as shown below.

   - List I--Accounting and Finance
   - List II--Economics, Marketing, and Transportation
   - List III--Management, Communications, Insurance, Computer Science and Statistical Analysis
   - List IV--Law
   - List V--General Business

3. **List of Diacritical Markings.** A list of diacritical markings is provided to each student participating in group B. Please ask students to retain this list of markings throughout the study to assist in learning the accurate pronunciations of the business terms being studied.

4. **Distribution of Word Lists.** The first list of words is to be distributed the next class day after the pretest has been given. Thereafter, an additional list of words is to be distributed every two weeks. Tell students about this procedure and also instruct them that they will be tested at the end of each two weeks on words assigned for study during that period.

5. **Student Preparation of Notebook.** Each student who is participating in this group is to prepare a notebook to be turned in at the end of the ten-week study. Students should be instructed to schedule their work on the notebook so that by the end of the first two weeks of the research study they have completed the part of the notebook which deals with the first list of words, by the
end of the second two-week period they have completed work on the second word list, et cetera.

The notebook prepared for this study is to contain five units or chapters divided according to the areas of study designated by the word lists. In each unit the student is to present the words from the list, complete with pronunciations, parts of speech, and definitions. Following the presentation of each word, the student is to present two sentences showing the word used in context. An example of the suggested notebook presentation is shown below.

Example of a notebook entry:

**collateral**  
kə-látˈər-əl  
n.  
Anything, such as stocks or bonds, that secures or guarantees the discharge of an obligation; it is returned to the debtor when the obligation is fulfilled.

Collateral used in sentences:

He used some of the stocks and bonds he owned as collateral for a loan to help finance the business venture.

Morgansen signed a mortgage on his home as collateral for the loan.

Students may develop their own sentences showing the business terms used correctly, or they may consult current periodicals.

6. **List of Business Periodicals.** Students participating in group B will be given a list of several business periodicals which may be consulted in locating the business terms used in context sentences. In addition to consulting the journals on the list, students may use sources such as the daily newspapers for these sentences.

7. **Lectures.** On the days the bi-weekly tests are given and the new word lists are distributed, teachers of classes in group B are to present a lecture of approximately 15 minutes on word parts—prefixes, suffixes, and roots. These lectures are designed to review students on meanings of the more common prefixes and suffixes; they are not
meant to be in-depth lectures on these word parts. Not all prefixes and suffixes will be studied; only those that appear to be most helpful to the study of the words on the lists will be discussed.

Materials for these brief lectures will be provided to the teachers of group B classes.

8. **Giving Credit for Participation in this Business Vocabulary Study.** Teachers are asked to give credit on the final Business Communications grade for participation in this research. Completion of the notebook and scores on bi-weekly tests and the posttest should receive credit.
FURTHER INSTRUCTIONS FOR USE WITH GROUP C--CLASSES

ACTING AS CONTROL

1. **Telling Students about Participating in Study.** Students in each group are to be told that they are participating in a research study. Students in group C should be told before the pretest that the test is designed to test their knowledge of business vocabulary terminology which business educators and businessmen have indicated it is highly important for business students to know. Please do not tell group C students that they are being compared with students who are receiving instruction on these terms.

2. **Responsibilities of Students in Group C.** Student participation in group C consists solely of taking two vocabulary tests—one at the beginning of this ten-week study and one at the end.
APPENDIX F

LECTURE OUTLINES FOR TEACHERS OF GROUP B

Points to Be Included in First Lecture

1. Many words have more than one meaning; the context in which a word is used determines the meaning attached to the word as it is being used.

2. While context determines the meaning of the word, it does not necessarily reveal that meaning.

3. Words are names.

4. Words can be either simple or complex. A simple word is called a "root" or "base" word. A complex word is composed of a root or a base plus affixes.

5. An affix is something added to a root or base. An affix added at the beginning of a word is called a prefix, and an affix connected to the end of a root is called a suffix.

6. Complex words may have both a prefix and a suffix.

7. Part of this study is designed to increase student awareness of some of the more common affixes; the study is not aimed at teaching all prefixes and suffixes.

8. Prefixes and suffixes are clues to meanings of words.

9. Of the many common prefixes, 11 have a single and fairly invariant meaning. This study presents seven of these 11 prefixes and shows their use in words on the high-importance word list students are studying. (See page 3 of the attached lecture for a presentation of these prefixes and sample words from the list which contain these prefixes.)

10. In addition, the prefixes in- and un- are to be studied. (See page 4 of the attached lecture for a discussion of these prefixes.)

11. Teachers are to allow a few minutes for answering any student questions relevant to the study.
12. Teachers are to distribute the next word list.

13. Teachers may use pp. 24-28 from Deighton's *Vocabulary Development in the Classroom* as a source of information for this lecture.
FIRST LECTURE*

Most words have more than one meaning. The context in which a word is used determines the meaning attached to the word as it is being used. An important part of this study is that you see each word used in context because context always determines the meaning of a word.

It should be remembered, though, that while context always determines the meaning of a word, context does not necessarily reveal that meaning. So it is wise to study the definition of the word and then to see the word used properly in context materials. Because this is considered an important way to learn new words, you are studying business vocabulary in this manner. You have been asked to study a different group of words every two weeks and to look for those words as they are used in business journals, newspapers, et cetera. During this study, then, you are learning definitions of words, and you are also noting their correct usage.

Words, in their most simple functions, are names. A word names a person, place, or thing, an action, a state of being or feeling, or a position of one thing relative to another. Words can be either simple or complex. A simple

*Information presented in this lecture was taken from Lee C. Deighton, Vocabulary Development in the Classroom, pp. 24-28, and from Randall H. Adams and A. M. Belmont, Jr., Building a Scientific Vocabulary: A Short Course with Exercises, p. 2.
word is called a "root" or "base" word. A complex word is composed of a root or a base plus affixes.

An affix is something added to a root or base. The affix can be connected to the beginning of the base or root or to the end of the base or root. For example, the word "book" is a base or root and is a simple word. The word "books" is a complex word composed of the root "book" plus "s," a letter added to denote plural. The "s" is an affix connected to the end of a root. An affix connected to the end of a root is called a suffix, and an affix connected to the beginning of a word is called a prefix. Complex words may have both a prefix and a suffix connected to the same root.

To aid you in learning the meanings of the selected business terms, we will review some of the more frequently occurring prefixes and suffixes. Many words can be broken down into word parts, and from these word parts the literal meaning of the word can be derived. For example, let's look at the word "abstainer" and break it into word parts.

- **ab (s)** is a prefix meaning away or from
- **tain** is the root word and is taken from tenere which means to hold or to refrain
- **er** is a suffix meaning one who

We now have a literal definition of the word "abstainer": one who refrains from. In studying the word in this manner, notice that we did not put the parts together in the same way that they occurred in the word itself. In other words,
we did not say, "from refrain one who." Instead, we defined "abstainer" as "one who refrains from."

In this study you will not be asked to learn all the prefixes and suffixes used in the construction of words. But if you can learn some of the ones used in a number of words, you will find that knowing a few prefixes and suffixes can aid you in defining words because the prefixes and suffixes give you clues to meaning.

Prefixes and suffixes are clues to what you would find if you went to a dictionary and looked up the definition of a word; but studying prefixes and suffixes is not intended to replace use of the dictionary.

Some prefixes and suffixes have several meanings and will be of less help to you than others. Therefore, let's begin our study of affixes by looking at some of those which seem to have the same meaning regardless of the root words to which they are attached.

Of the 68 prominent and commonly used prefixes there are only 11 which have a single and fairly invariant meaning. You will find that seven of these 11 prefixes having invariant meanings are used in words on the list you are studying. Here are those seven with their meanings.

- **equi**--having equal, equally
- **extra**--beyond, outside of, outside the scope of
- **intra**--within, inside
- **mis**--amiss, wrong, ill
- **non**--not
- **syn**--with, along with, together, at the same time
  (becomes **sym**- in some words)
com (which becomes co-, col-, con-, cor- in some words)--with, together, very

Now let's look at some of the business words you'll be studying and see how these prefixes help to define them.

**equalization**: the act of making equal

**extrapolate**: to estimate values or quantities beyond the known range

**intrastate**: within a state

**misdemeanor**: wrong behavior

**nonparticipating**: not taking part in

**symposium**: a gathering at which ideas are freely exchanged

**commutation**: with change; in law, a change of a sentence or punishment to one that is less severe

**colleague**: one chosen at the same time with another; a partner, fellow worker, associate

**conciliation**: act of bringing together; making friendly

**conglomerate**: made up of separate parts collected together into a single mass

(Teachers, as you present the list of words above, emphasize the meanings of the prefixes to re-enforce them.)

Two of the most common prefixes in the language aren't listed above because they have more than one meaning. They are so useful, however, that they merit special attention. The first of these is "in-." It may mean "not" as in "inconvertible," and it may mean "in, into, within" as in "input." Occasionally it is used as an intensive to give
added force to the meaning of a word. The prefix "in-" changes to "ir-" before words beginning with l. It changes to "im-" before words beginning with m or p. It may change to "im-" before words beginning with b.

It should also be noted that the prefix "en-" is a variant of "in-". The prefix "en-" is used almost entirely with verbs and almost never with the sense of "not."

The second useful prefix with more than one meaning is "un-". It may mean "not," or it may mean "the opposite of."

Since these two prefixes, "in-" and "un-," are used with so many English words, it is worth while taking time to study them. But remember that you need to try one meaning tentatively until the context determines whether it is the right one.

It must always be kept in mind that words by themselves have no meaning. They have no meaning until they are used, until they are placed in a context. Prefixes give clues to the meanings of words as they are used in context.

(Distribute the next list of words and remind students that they are to be completing their notebooks as they study the words on the list.)
POINTS TO BE INCLUDED IN SECOND LECTURE*

1. It is necessary to change the spelling of some prefixes to make a word easy to pronounce.

2. Use as an example the prefix ad which may be spelled in one of these ways: a, ac, af, ag, al, an, ap, ar, as, or at.

3. Present the 16 prefixes listed below. Give their meanings and sample words from the high-importance word list. See the attached lecture notes for this material.

   ab (a, abs)
   ad (a, ac, af, ag, al, an, ap, ar, as, at)
   anti (ant, anth)
   bi
   contra (contro, counter)
   de
   dis (di, dif)
   ex (e, ef, es)
   inter
   ob (oc, of, op)
   per
   pre
   re
   retro
   sub (suc, suf, sug, sup, sus)
   uni

*The source for this lecture was J. E. Silverthorn, Devern J. Perry, and John W. Oberly, College Vocabulary Building, pp. 59-60.
POINTS TO BE INCLUDED IN THIRD LECTURE*

1. Of the 100-odd suffixes commonly and frequently appearing in English words, 86 indicate certainly and invariably the part of speech of the word to which they are attached.


3. Present the noun suffixes "age," "ance," "ence," "ion," "ism," "ity," "ment," and "or." Give their meanings and give examples of words from the high-importance word list which contain these suffixes. See the attached lecture notes for this material.

4. Verb suffixes generally denote "to make."

5. Present the verb suffixes "fy" and "ize." Give their meanings and give examples of words from the high-importance word list which contain these suffixes. See the attached lecture notes for this material.

*Much of the material for this lecture was taken from J. E. Silverthorn, Devern J. Perry, and John W. Oberly, College Vocabulary Building, pp. 63-64.
POINTS TO BE INCLUDED IN FOURTH LECTURE*

1. Adjective suffixes generally denote "full of," "capable of," "tending to," "resembling," and "pertaining to."

2. Present the adjective suffixes "able," "ical," "ious," and "ive." Give their meanings and give examples of words from the high-importance word list which contain these suffixes. See the attached lecture notes for this material.

3. Some suffixes may be used for more than one part of speech. Examples of these suffixes are "al," "ant," "ary," and "ate." Present these suffixes with example words from the word list and their definitions. See the attached lecture notes for this material.

4. It should be noted that not all first letters of words are prefixes, and students should be reminded to examine an unfamiliar word to try to determine if the word can be broken into word parts.

5. For complete word meanings a good dictionary should be consulted.

*Materials for this lecture were taken from J. E. Silverthorn, Devern J. Perry, and John W. Oberly, College Vocabulary Building, pp. 63-64, and from Randall H. Adams and A. M. Belmont, Jr., Building A Scientific Vocabulary: A Short Course with Exercises, p. 27.
## APPENDIX G

**PRETEST AND POSTTEST SCORES FOR GROUPS A, B, AND C**

**PRETEST AND POSTTEST SCORES FOR GROUP A**

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*Subjects S-1 through S-29 are group B1, and subjects S-43 through S-71 are group B2.
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*Subjects S-1 through S-24 are group C₁, and subjects S-36 through S-59 are group C₂.*
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