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The effect of using test-outs and assigned activities on the vocabulary achievements of sixth grade students

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THE EFFECT OF USING TEST-OUTS AND ASSIGNED
ACTIVITIES ON THE VOCABULARY
ACHIEVEMENTS OF SIXTH
GRADE STUDENTS

by

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DEDICATION

This research paper is dedicated to my parents, Mr. and Mrs. Gerald J. Fischer, who taught me the value of education, perseverance, and a job well-done, and to my husband, Gary, who has endured two months of physical separation so that the completion of this paper was possible.

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CHAPTER I

INTRODUCTION

With each new concept or activity developed, a way to express that concept or activity is a must with man. Verbal communication is a peculiar distinction of man. It sets him off from all other life forms on earth. This may account for the excitement felt when a child utters his first word. At that point a child has taken a giant step toward socialization. For those words to become verbal communication, meaning must accompany them. Meaning comes from experiences--experiences in which a child is actively involved whether it be intellectually, emotionally, physically or any combination of the three.

This paper will deal with students obtaining meaning primarily through physical/intellectual experiences. The following two questions will be answered.

1. Do students retain words after having had experiences with their meanings?

2. Do the kinds of experience(s) a student has with a word's meaning influence the retention of that meaning?

CHAPTER II

REVIEW OF RESEARCH

How important is a "good" vocabulary?

An individual's total vocabulary consists of both his quantitative and qualitative general vocabulary as well as his special and technical vocabulary and his working knowledge of common English words used as specific terms. A teacher should realize that words are units of thought without which a child can neither read nor write.[1] It is in the area of "meaning" that reading departs from being a skill oriented activity and becomes an intellectual growth activity.[2]

Langer conducted a study in which he reached three conclusions concerning vocabulary. First, a study of abstract words that have several meanings resulted in an increase in the mean IQ for fourth and fifth graders at the .01 level of significance. Second, direct instruction in defining abstract words that have several

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[1]W. H. Rupley, "Vocabulary Development and Instruction: ERIC/RCS Report," Reading Teacher 27 (January 1974): 428-30.

[2]M. O. Holt, "Reading to Learn," Clearing House 43 (January 1969): 267-71.

meanings seemed to be an effective means of developing skill in the association of ideas. Third, abilities gained in using abstract terms apparently permitted pupils to make more effective and more meaningful associations with the general ideas to be manipulated in verbal tests of general ability.[1]

Draper and Moeller also conducted a study in which a positive relationship between vocabulary and achievements and IQs was concluded. The study involved giving middle grade students of St. Louis both the Iowa Tests of Basic Skills and the Lorge-Thorndike IQ Test. The tests were followed with a nine month radio vocabulary program. After the program the students were tested again with achievements being above expectations and an increase in IQs.[2]

Hasluck contributes several factors to having a good vocabulary. She begins with the idea that until a child can read he cannot progress in his education. Reading to Hasluck involves learning to understand exactly what the words mean, and she adds the sentiment that the earlier this happens the better. Hasluck states:

If children are taught the exact meanings of words,

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[1] J. H. Langer, "Better Abstract Vocabulary: Higher Intelligence Quotient," Elementary School Journal 68 (December 1967): 157-61.

[2] A. G. Draper and G. H. Moeller, "We Think with Words: St. Louis Vocabulary Developmental Project," Phi Delta Kappan 52 (April 1971): 482-84.

taught to look them up, to define them, when they grow up they will not be easily deceived by words used in the commercial world."[1]

She feels that the study of exact meanings and how to apply them will help develop a critical approach which will in turn lead to the objective interpretation of newspapers and television. Hasluck concludes her article with:

> I am inclined to state that the modern slackness in the use of words and knowledge of their meaning is in part due to the lack of knowledge of the way to form a sentence properly.[2]

Pflaum relates the expansion of a meaning vocabulary to four factors: 1) the ability to comprehend is equal to the ability to understand vocabulary; 2) word meaning is an important factor in reading ability; 3) readability level is determined by word difficulty; 4) vocabulary knowledge is strongly related with measures of general knowledge.[3]

Four other authors made mention of Pflaum's first factor. Harris states that a high correlation exists between meaningful vocabulary and reading comprehension.[4] Karbal calls vocabulary the main component of reading

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[1]Alexandra Hasluck, "First Things First: Know Thy Words," The Reading Teacher 25 (December 1971): 233.

[2]Ibid., p. 235.

[3]Susanna W. Pflaum, "Expansion of Meaning Vocabulary: Strategies for Classroom Instruction," Elementary English 50 (January 1973): 89-93.

[4]Albert J. Harris, "Key Factors in a Successful Reading Program," Elementary English 46 (January 1969): 69-76.

comprehension.[1] Pace and Golinkoff state that, "Though meaning comes from more than the meaning of individual words, the ability to extract meaning from single printed words may be a critical component of reading comprehension."[2] "Comprehension does not depend on vocabulary itself, but on the ideas the vocabulary represents," states Langer. He therefore concludes that vocabulary and reading comprehension are closely associated.[3]

Langer and Linville dealt with reading ability as related to vocabulary. Linville found that both syntax and vocabulary are determiners of the difficulty encountered with verbal arithmetic problems, but he felt vocabulary could be more crucial in determining success than syntax.[4] Langer feels that an increase in a pupil's precision in handling and manipulating words and the concepts that words represent should result in improvement of

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[1]Harold T. Karbal, "Keying in on Vocabulary," Elementary English 52 (March 1975): 367-69.

[2]Ann Jaffe Pace and Roberta Michnick Golinkoff, "Relationship Between Word Difficulty and Access of Single-Word Meaning by Skilled and Less Skilled Readers," Journal of Educational Psychology 68 (December 1976): 761.

[3]J. H. Langer, "Vocabulary and Concepts: Essentials in the Reading-Thinking Process," Elementary School Journal 69 (April 1969): 381-85.

[4]William J. Linville, "Syntax, Vocabulary, and the Verbal Arithmetic Problem," School Science and Mathematics 76 (February 1976): 152-58.

the reading and thinking process.[1]

Karbal states that vocabulary improvement is a pivotal factor of test scores.[2] The study by Langer and the study by Draper and Moeller, both of which have been described earlier, also attest to the positive relationship between vocabulary knowledge and test scores.[3] Also related to this idea is the statement made by Dale and Milligan that accurate concept formation and maximum learning take place through the understanding of vocabulary terms.[4] All of these statements correlate with Pflaum's fourth point concerning the positive relationship between vocabulary knowledge and measures of general knowledge.

In concluding this section the author wishes to quote two more writers. Lake conducted a study which concluded that the exact meanings of many words correlates with success more often than any other measurable factor. This is true in every type of work from the highest position to the lowest position.[5]

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[1]Langer, "Vocabulary and Concepts: Essentials in the Reading-Thinking Process," pp. 381-85.

[2]Karbal, "Keying in on Vocabulary," pp. 367-69.

[3]Draper and Moeller, "St. Louis Vocabulary Development Project," pp. 482-84.

[4]E. L. Dale and J. L. Milligan, "Techniques in Vocabulary Development," Reading Improvement 7 (Spring 1970): 1-5, 13.

[5]M. L. Lake, "First Aid for Vocabularies," Elementary English 44 (November 1967): 783-84.

The importance of vocabulary--words and their meanings--
can best be shown by Dohan's statement, "A stranger learning
our words and their meanings would know more about us than
he could from reading a thousand books."[1]

How useful are context clues?

Askov and Kamm feel that context clues are the main
route for students to comprehend strange words.[2] Usova
states that context clues are a major self-help technique.
He feels that it is not desirable nor important to look up
every word because only a rough meaning of a word is usually
necessary for understanding. Usova further emphasizes this
point by stating, "A stilted definition is not as important
as meaning in context."[3] Deighton agrees with Usova by
saying, "Meaning comes from experience not a dictionary."[4]
Shankman indicates his feelings about context and vocabulary
by reporting that though games are incentive for learning
vocabulary, they should not be used until the students have

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[1]Mary Helen Dohan, "Unlocking Our Word Hoard,"
American Education 12 (October 1976): 13.

[2]Eunice Askov and Karlyn Kamm, "Context Clues: Should
We Teach Children to Use a Classification System in Reading?,"
Journal of Educational Research 69 (May 1976): 341-44.

[3]George M. Usova, "Improving Vocabulary Through Wide
Reading and Context," Reading Improvement 14 (Spring 1977):
62.

[4]Lee C. Deighton, Vocabulary Development in the Class-
room, (New York: Bureau of Publications Teachers College
Columbia University, 1959), V.

met words in a meaningful situation.[1] Rupley completes

his article with "...the utility of given words in

numerous contexts should be emphasized."[2]

Three authors gave special emphasis to the use of

words in context to develop vocabulary. Draper and Moeller

stated that after words were discussed, the reading teacher

was to use the words in context as students followed in

their own books. Review words were also used in narratives,

thereford, they appeared frequently in various narrative

contexts including regular textbooks. Classroom teachers

were alerted to the need to review the meanings as words

were encountered in other contexts.[3] Hirsch and Lewinger

reported the use of context clues by presenting students

with a group of sentences in which a single word was repeated

but with a different meaning in each case. The students were

required to match the correct meaning with the correct sen-

tence. In another activity of Hirsch's and Lewinger's the

students were required to use the word in a sentence

accurately which allowed for any misunderstanding to be

corrected immediately.[4] Dodson simply states that the most

effective method of learning meanings of words is context

[1]Florence V. Shankman, "Games Reinforce Reading Skills,"
Reading Teacher 22 (December 1968): 262-64.

[2]Rupley, "Vocabulary Development and Instruction,"
p.430.

[3]Draper and Moeller, "St. Louis Vocabulary Developmental
Project," pp. 482-84.

[4]Ruth Hirsch and Miriam Lewinger, "Words to Grow On,"
Teacher 92 (February 1975): 72-77.

coupled with the student using the word.[1]

Deighton contends that context always determines meaning but infrequently reveals meaning. He explains further that context cannot be said to reveal meaning unless there is a clear-cut connection between the word and those which illuminate it. Also related to the extent context reveals meaning is the experience of the reader. From this Deighton developed three conditions which affect the effectiveness of context in revealing meaning:

1. Previous experience of the reader
2. Proximity of the enlightening context to the unfamiliar word
3. The clearness of the connection between the context and the word it bears upon[2]

Deighton also developed four general principles of context operation.

1. Context reveals the meaning of unfamiliar words only infrequently
2. Context generally reveals only one of the meanings of an unfamiliar word
3. Context seldom clarifies the whole of any meaning
4. Vocabulary growth through context revelation is a gradual matter[3]

According to Askov and Kamm, instruction in context clues using a classification scheme improves student performance and maintance, therefore, context clues are usually presented by types or categories.[4] Deighton

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[1]M. K. Dodson, "Context Approach to Vocabulary Study," Reading Improvement 8 (Fall 1971): 49-51.

[2]Deighton, Vocabulary Development in the Classroom, p. 2.

[3]Ibid., pp. 2-3.

[4]Askov and Kamm, " Context Clues," pp. 341-44.

indicates six such categories. The first is definition in which the unknown is equated by a form of the verb "be". Example is the second and is usually indicated by a signal word or phrase like <u>such as</u>, <u>such</u>, <u>especially</u>, <u>for example</u>, and so forth. The third is modifiers which come in the form of phrases, clauses, or even single words. Restatement, which is used more frequently than those above, involves such signal words as: <u>in other words</u>, <u>that is</u>, <u>to put it another way</u>, and so forth and mechanical devices like the parenthesis, dash, or comma is the fourth category. The fifth is inference which requires the reader to see relationships not explicity stated. Lastly is inference through established connections which involves parallel sentence structure, the repetition of key words, the use of connecting words like <u>however</u>, <u>yet</u>, <u>therefore</u>, <u>similiarly</u>, and so forth or restatement through the repetition of thought or by a statement of opposites.[1] Deighton feels that the first four types of context clues are responsible for revealing half of the meanings of unknown words and the last two types reveal the other half of the meanings of unknown words.[2]

Other authors have also constructed lists of types of context clues. Dodson's list of common context clues

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[1]Deighton, <u>Vocabulary Development in the Class-room</u>, pp. 6-15.

[2]Ibid., p. 16.

includes definition, contrast, examples, key words, and summarizing phrases or sentences.[1] Definition, comparison or contrast, synonym, familiar expression or language experience, summary, and reflection of mood or situation are included in Smith's list of context clues.[2] Askov and Kamm list only three categories of context clues—cause-effect, direct description, and contrast.[3]

Though Sturdevant feels negative towards vocabulary lists, he also states that the concept of studying words in context is not always workable either. It is hard to obtain suitable material and often impractical or unaesthetic to focus on the vocabulary in a work and at the sametime maintain the continuity of the thought. He states, "Vocabulary study must be pursued in a systematic way and that the follow-up to the reading is the real catalyst in the process of in-context word power building."[4]

Bruland agrees that the use of context clues is necessary for deriving meaning without using outside time-consuming sources. He also feels though that the context clues are often not there or inaccurate, that the student

[1]Dodson, "Context Approach to Vocabulary Study," pp. 49-51.

[2]Richard J. Smith, "Intermediate Grades Reading Program: Questions Teachers and Principals Ask," Elementary English 49 (March 1972): 364-68.

[3]Askov and Kamm, "Context Clues," pp.341-44.

[4]J. R. Sturdevant, "Shaw's Don Juan in Hell: A Study in Word Power," English Journal 57 (October 1968): 1002-4.

must know when to use them, and that it's essential the
the student know how to use the language of a subject to
derive meaning for unknown words.[1]

What is needed to develop vocabulary?

Vocabulary development is one of the more difficult
areas of reading instruction for both the teacher and the
pupil. In the concern to improve the quality of reading,
vocabulary development has been neglected; in the zeal
to teach pronunciation, the teaching of meaning has been
neglected.[2] Karbal states, "Vocabulary development gets
high priority but not the emphasis it deserves."[3] Rupley
and Karbal feel that part of the problem stems from de-
ciding which words to teach and how to present them.[4]

Bruland gives two guidelines to picking vocabulary
words. First, the student must be able to associate
concepts he already knows with the words he is being asked
to learn.[5] Karbal agrees with Bruland by stating, "Re-
lating new words to the experiences of children is the

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[1]Richard A. Bruland, "Learnin' Words: Evaluating
Vocabulary Development Efforts," Journal of Reading 18
(December 1974): 212-14.

[2]Rupley, "Vocabulary Development and Instruction,"
pp. 428-30.

[3]Karbal, "Keying in on Vocabulary," p. 368.

[4]Ibid.
Rupley, "Vocabulary Development and Instruction,"
p. 430.

[5]Bruland, "Learnin' Words," p.213.

secret of vocabulary development."[1] Bruland's second

guideline is that the student must see a need to learn

the words he is being asked to learn. In other words,

the student will be using or have a need to use the words

in other ways and other contexts than he is being taught.[2]

Cohen suggests that great emphasis should be placed on a

child's natural interests when seeking words to develop.[3]

Peterson showed that words which were picked by the sub-

ject to learn were learned more rapidly than words se-

lected by the teacher and that in the absence of self-

selection, emotional words are learned more rapidly than

non-emotional words.[4] Pflaum states that the most ap-

propriate terms to be analyzed are the key words from

subject matter units.[5] Rupley indicates agreement with

Pflaum on this point when he states, "It is important

that teachers develop both the general and special vo-

cabulary for reading in content areas."[6] Johnson points

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[1]Karbal, "Keying in on Vocabulary," p. 369.

[2]Bruland, "Learnin' Words," p. 213.

[3]Dorothy A. Cohen, "Finding and Using Children's
Clues to Clarify Meanings," Childhood Education 45
(October 1968): 61-64.

[4]Candida C. Peterson, "Self-Selection of Vocab-
ulary in Reading Instruction," Journal of Educational
Research 67 (February 1974): 253-54.

[5]Pflaum, "Expansion of Meaning Vocabulary," p. 90.

[6]Rupley, "Vocabulary Development and Instruction,"
p. 429.

out the necessity to go beyond the textbook in his state-
ment, "Vocabulary in schoolbooks is narrow and self-
perpetuating. . . . Word lists should be language re-
flective rather than exclusively schoolbook reflective."[1]
Dale and Milligan summarize the ideas presented by stating
that learning must have a purpose and that purpose must
have relevance to the student.[2]

All basal readers contain lists of vocabulary words
which students will encounter in their advancement through
the series. The recent changes in basal readers has in-
cluded the area of vocabulary. For a while there existed
the widespread practice of using cobasal readers to en-
rich and supplement learning. Olson suggests that this
practice may do more harm than good because of the great
differences which exist in the vocabulary of any two
basal readers.[3] Rodenborn and Washburn support Olson by
reporting that basal readers have abandoned a controlled
vocabulary, therefore, there has been a marked increase
in the total number of words because not all words are
taught directly. This also means that new words are not
necessarily repeated. Rodenborn and Washburn conclude

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[1]Dale D. Johnson, "Word Lists That Make Sense . . .
And Those That Don't," Paper presented at the Annual
Meeting of the International Reading Association, New
Orleans, May, 1974.

[2]Dale and Milligan, "Techniques in Vocabulary
Development," p. 13.

[3]Arthur V. Olson, "Vocabulary Problems Inherent
in Basal Readers," Education 86 (February 1966): 350-51.

that basal series no longer share a commonality of core words, making it difficult for a child to go from one series to another.[1] Rupley feels that the whole concept of a core vocabulary should be rethought due to the rapid change in our language and society.[2]

There are two faces to the question of using the structural approach in vocabulary development. Dale and Milligan feel that a strong basis for a structural approach can be seen in that 24% of all words in Thorndike's Teachers' Word Book of 20,000 Words have prefixes and fifteen prefixes account for 82% of these. They also reported that fourteen words contained the structural elements found in 14,000 relatively common words. According to Dale and Milligan word analysis or structural approach should:

1. Explore the meanings of common affixes and root words
2. Develop the ability to use words or word elements to determine the meaning of unknown words
3. Provide skills necessary to divide words into meaningful parts
4. Provide word analysis skills which can transfer to all school subjects
5. Arouse a permanent interest in words, derivations, roots, and how words are coined[3]

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[1]Leo V. Rodenborn and Earlene Washburn, "Some Implications of the New Basal Readers," Elementary English 51 (September 1974): 885-88.

[2]Rupley, "Vocabulary Development and Instruction," p. 428.

[3]Dale and Milligan, "Techniques in Vocabulary Development," pp. 1-5.

Weintraub agrees with Dale and Milligan's feelings about
structural analysis and states that findings support the
study of root words as a means of vocabulary growth.[1]
Deighton does not speak as highly of structural analysis
as Dale and Milligan. He comments on the difficulty of
figuring out meaning from the study and knowledge of
root words because only literal meaning is given. Most
words have larger and more involved meanings than the
sum of the parts would lead one to deduce. Word analysis
would give only a single meaning for a word. Deighton
does, though, list certain affixes and combining forms
with fixed and invariant meanings that would clue a
reader into some general ideas concerning the meaning
of a word.[2]

Rupley feels that students learn words individually
and in relation to personal conceptual systems, therefore,
vocabulary instruction should be viewed as concept building.[3]
Pflaum expands on this idea. She describes two types of
concept acquisition--horizontal and vertical. Horizontal
acquisition involves concepts which at first are only
understood vaguely--not all attributes are present and
some attributes are present which will be abandoned later.

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[1]S. Weintraub, "Development of Meaning Vocabulary
in Reading," Reading Teacher 22 (November 1968): 171-75.

[2]Deighton, Vocabulary Development in the Classroom,
pp. 17-32.

[3]Rupley, "Vocabulary Development and Instruction,"
p. 429.

Vertical acquisition means that the person already has

a categorical understanding of a related group of con-

cepts so that a new member of the group is acquired with

its full complement of attributes.[1]

Pflaum's strategies for the acquisition of new vo-

cabulary items include:

1. A climate which encourages vocabulary extension
2. Attention to meaning as well as pronunciation
3. Natural use of the dictionary
4. Explicit techniques for full use of context clues
5. Affix study
6. Study of word derivation
7. Periodical review
8. Charts and the development of individual student dictionaries[2]

Harris lists five conditions to stimulate vocabulary

growth.

1. Provide real experiences
2. Teacher must provide an abundance of illustrations of curriculum basic concepts
3. Wide reading
4. Teaching efficient use of the dictionary
5. Stimulation of interests in words and their meanings through games and contests[3]

Karbal states that vocabulary must be introduced

in meaningful ways which involve the use of methods which

catch students' attention and will help them retain the

meanings. He mentions such methods as a picture, drawing,

or the actual object when introducing the vocabulary word,

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[1]Pflaum, "Expansion of Meaning Vocabulary," p. 90.

[2]Ibid., pp. 89-90.

[3]Harris, "Key Factors in a Successful Reading Program," pp. 69-76.

illustrating action words with stick figures or dramatization.[1]

Rupley in commenting on the oral development of vocabulary lists two don'ts and three do's. The don'ts include not correcting grammar or pronunciation and not relying on nonverbal gestures in giving instructions. Establishing a way to relate to children by speaking to them in a natural tone, conversing with children rather than lecturing to them, and stimulating children to think by using divergent questioning are the three do's in developing oral vocabulary.[2]

Pflaum also developed some strategies for the development of in-depth knowledge of known words. Her general comments on the subject include the caution not to exceed the cognitive level of students. In order for terms to become true members of a student's vocabulary, inductive learning should be applied to extend the understanding of those terms.[3] Bruland feels that repeated exposure is needed to acquire multiple meanings and shades of meaning. Meanings are not taught but acquired by association.[4]

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[1]Karbal, "Keying in on Vocabulary," pp. 367-69.

[2]Rupley, "Vocabulary Development and Instruction," p. 430.

[3]Pflaum, "Expansion of Meaning Vocabulary," pp. 90-93.

[4]Bruland, "Learnin' Words," p. 213.

Morris believes that the chief problem concerning the development of vocabulary is to excite students' curiosity and interest in English. One traditional approach has been the tracing of the histories of words, but Morris believes that exercises closer to the students' own range of interest are better.[1]

Sturdevant, Usova, and Dale and Milligan condemn the use of vocabulary word lists. Sturdevant states that vocabulary lists are a semiuseless throwback to a darker era of English instruction. He calls them artifical, tedious, ineffective, and based on an unsound principle. He further emphasizes that words studied out of context are not retained.[2] Usova commented on the practice of giving students a list of words to look up the meanings of on Monday followed by a test on Friday. He states three reasons for this practice's ineffectiveness.

1. No follow-up is involved
2. No pressure exists to utilize newly learned words in everyday speech
3. Teacher selected words may not be readily meaningful[3]

Dale and Milligan state that giving lists of words to be looked up is both inefficient and ineffective besides

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[1]W. Morris, "Dictionary as a Tool in Vocabulary Development Programs," English Journal 59 (May 1970): 669-71.

[2]Sturdevant, "Shaw's Don Juan in Hell," p. 1002.

[3]Usova, "Improving Vocabulary Through Wide Reading and Context," pp. 62-64.

being boring and tedious.[1]

Deighton suggests five procedures as providing a framework for the instruction of vocabulary.

1. English based words
2. Words in combination
3. Synonym
4. Antonyms and contrasting words
5. Derivations[2]

Five authors mentioned the importance of reading to developing vocabulary. Bruland states that word sense can be richly developed through wide reading.[3] Much reading leads to a growing knowledge of words, according to Lake.[4] Usova claims that wide reading is a great improver of vocabulary.[5] Rupley feels that students should be carefully introduced to the best stories written today to rekindle in them an interest in words and reading.[6] As previously mentioned, Harris included wide reading as one of his conditions to stimulate vocabulary development.[7]

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[1]Dale and Milligan, "Techniques in Vocabulary Development," p. 2.

[2]Deighton, Vocabulary Development in the Classroom, pp. 33-41.

[3]Bruland, "Learnin' Words," p. 214.

[4]Lake, "First Aid for Vocabularies," p. 783.

[5]Usova, "Improving Vocabulary Through Wide Reading and Context," p. 62.

[6]Rupley, "Vocabulary Development and Instruction," p. 430.

[7]Harris, "Key Factors in a Successful Reading Program," pp. 69-76.

Vocabulary Programs

Bruland begins by stating that it is a total school
obligation to create the conditions for vocabulary de-
velopment.[1] Dale and Milligan emphasize the point by
stating that vocabulary development is the concern of
all teachers because it is crucial to learning. They
also feel that teachers should provide practice for term
usage in regard not only to their own subject but also
to other subjects and contexts.[2]

The need for a formal program of vocabulary devel-
opment is emphasized by four authors. Dale and Milligan
mention the need for continued systematic attention by
all classroom teachers.[3] Weintraub reports that reading
alone is not as effective in promoting the learning of
new words as direct instruction.[4] A formalized, structured
vocabulary development program is highly desirable ac-
cording to Rupley.[5] Pflaum feels that an instructional
program is important and should contain two aspects--
the new vocabulary terms which is the most obvious and

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[1]Bruland, "Learnin' Words," p. 212.

[2]Dale and Milligan, "Techniques in Vocabulary De-
velopment," pp. 42-43.

[3]Ibid.

[4]Weintraub, "Development of Meaning Vocabulary in
Reading," p. 171.

[5]Rupley, "Vocabulary Development and Instruction,"
p. 430.

the extension of meaning which is just as important.[1]

Bruland criticizes commercial programs. He feels
that they are missing the element of developing words
which are a part of the student's immediate language en-
vironment. Bruland states that most vocabulary is ac-
quired incidentally not through the use of context clues
or direct teaching.[2]

The vocabulary programs reported by the author are
arranged from the one with the most available information
to the one with the least available information.

Hirsch and Lewinger

The first program that will be presented was re-
ported by Hirsch and Lewinger.[3] The program begins the
first day of school and is carried on to the last day of
school. Graded vocabulary lists are not used because the
particular words selected are not thought to matter as
much as the word-consciousness which is being encouraged.
Though there is no way of measuring if words are taken
with the students from the classroom, the students do
develop a zest for words.

The first day of school is spent in using strategies
which will make the children word-conscious. Large charts

[1]Pflaum, "Expansion of Meaning Vocabulary," p. 90.

[2]Bruland, "Learnin' Words," p.214.

[3]Hirsch and Lewinger, "Words to Grow On," pp. 72-77.

are filled with student supplied words. The first three
categories involve "people" words (adjectives), words
describing how people move (verbs), and words that can
be used instead of the word "said". The charts are later
duplicated and given to each child to keep in his note-
book as a handy thesaurus.

The program centers around an activity called the
"Daily Warm-Up". Each morning an activity like the one
which follows is placed on the board.

> Everyone agreed that the witch in the story was
> malevolent.
> 1. Guess the meaning of the underlined word
> 2. Find the appropriate dictionary meaning
> 3. Write the phonetic respelling and practice pro-
>   nouncing the word
> 4. What part of speech is it?
> 5. Use the word in an original sentence
> 6. Would you rather have a malevolent or benevolent
>   teacher? How would a benevolent teacher behave?

The first thing the student is to do concerning the
warm-up word is to record it on a 3x5 card for his per-
sonal file. Teachers make a display in the classroom of
all warm-up words. The six activities listed below the
warm-up sentence are done in complete sentences in the
students' notebooks. A "We Care" is stamped on the top
of the page of those who begin their work as soon as they
enter the room. As soon as everyone is finished, immed-
iate feedback is given in the form of a discussion of the
six activities. After the discussion each child is to
write the correct meaning of the word and a sentence con-
taining the word on the back of the index card containing
the word.

Warm-ups are used by the teacher to emphasize the skills and concepts that are going to be taught or reviewed on any given day. It is suggested that context clues be stressed first. The teacher should vary the format of the sample warm-up sentence--definition, use of examples, contrast, details or hints. Approximately four new words are learned each week.

The six activities following the warm-up sentence are discussed extensively following the completion of those activities by all students. During the discussion of activity one, "guess the meaning," the students must justify their answers. This leads to a marked improvement in the skill and logic the students applied. Students used both context clues and structural analysis. At this point a chart is constructed and labeled "The Prefix 'Mal' Means Bad". Words which were discovered by the students throughout the year and fit the pattern were added to the chart. Students placed other words with the same prefix in their own dictionaries. Activity two, "find appropriate dictionary definition," requires the teaching and review of important skills such as alphabetizing,use of guide words, ability to select from multiple meanings and so forth. Three levels of dictionaries are available-- intermediate, high school, and college. Activity three, "copy phonetic spelling and practice pronunciation," is enjoyed by the students because it's similiar to cracking a code. Frequent attention is paid to the pronunciation

key located in the front of each dictionary and with daily practice the students became quite proficient. Activity four, "part of speech," involves teaching the parts of speech using linguistic methods. The form of a word is frequently a clue to its part of speech. Large charts are constructed with titles such as "Words that end with the suffix 'ity' are nouns." The students throughout the year add appropriate words to the chart. Another clue to this activity is the location of the word in the sentence and the facts that a noun can be made into a plural and a verb changes tense. Students are always directed to look at the way a word is used in the sentence before deciding on its part of speech and then verify their decision with the dictionary. Activity five, "use the word in an original sentence," requires the student to use the word accurately and allows for any misunderstanding to be corrected immediately. Activity six, "a question is posed to the student involving the word," makes the word a part of the student's experiences, requires critical thinking and organization to write a coherent answer. Activity six is open-ended.

Besides the six follow-up activities to the warm-up sentence, there are other activities/accomplishments which stem from the follow-up activities. Word etymology develops naturally from the research students do on the etymology of their own names. Dictionary-making is intrduced with the warm-up sentence, "If you were lexico-

graphers, how would you decide which words to include in your dictionary?" At this time dialects and slang are discussed. Students work together to compile a slang dictionary. Each student picks his favorite slang words and defines them in appropriate dictionary style. Each student must also work out the phonetic respelling for each slang word and decide on its part of speech. The cards containing the preceding information are collected from the students, definitions are checked, and lastly the information is recopied. The complete dictionary is duplicated and distributed to the students. From this, other specialized dictionaries--baseball, football, ballet-- are undertaken by the students. The "Dictionary Game" is also played. Students are asked to create a definition which sounds like a real definition for an unfamiliar word. The students must also give the pronunciation, part of speech, and examples of how to use the word according to their definition. This information is collected, read, and students vote for the correct definition. "Concen-tration" is also played and helps the students do well on the weekly vocabulary quiz. A bulletin board titled, "Words in Action" is also constructed. The bulletin board contains word spotter citations. Students scan newspapers and novels, and listen closely to television newscasters, friends, and family members to catch the use of a warm-up word. Citation slips are used to record the source of and context in which the warm-up word was used.

These slips are then placed on the bulletin board. A
variety of writing assignments are given concerning the
"Words in Action" bulletin board because new words must
be used or they'll be forgotten. To remind students of
the importance of using new words the "Words in Action"
bulletin board contains the quote, "Use a word at least
five times and it's yours."

St. Louis Vocabulary Development Program

Draper and Moeller reported on a vocabulary pro-
gram developed for the middle-grade students of St. Louis.[1]
Middle-grade students are used because vocabulary gains
are of special importance in the fourth grade as content
books are being used which contain vocabulary words that
have little or no connection with the vocabulary being
taught in the reader. To begin, the students were given
the Iowa Tests of Basic Skills and the Lorge-Thorndike
IQ Test. The program was then instituted from September
through May. At the end of the program the students were
retested. Achievement was found to be above expectations
and IQs were higher. The premise of the St. Louis Vo-
cabulary Development Program is that success in school
is determined largely by verbal ability. The program is
designed to show that measurable improvements in the
learning of large numbers of city children can be made
as a result of intensive, systematic vocabulary instruction.

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[1]Draper and Moeller, "We Think with Words," pp. 482-84.

Other attempts had been made to improve vocabulary but had fallen under their own weight of tediousness and ineffectiveness.

The vocabulary program centers around a radio program which is presented three times a week. Words came from <u>Thorndike and Lorge's Teachers Word Book of 30,000 Words</u> which is based on the frequency of use in English prose. The words used are those most likely to give middle-grade students difficulty from each group of 1,000 words in the list, starting with the most frequent. Chosen words are arranged in alphabetical order and placed in groups of twenty. The pretest is of the multiple choice variety. The radio lessons along with teacher input are then presented. Periodically retests consisting of the same words as were given in the pretest, but in a scrambled order are given. A mastery test consisting of a sample of 100 words from each nine lessons is given.

Before each radio lesson a pretest consisting of the words that are going to be presented in the radio lesson is given to the students. The lesson begins with the radio teacher dictating the words and their pronunciations while the classroom teacher writes the words on the board and the students copy them into their notebooks. An explanation of each word's meaning and illustrations of each word's uses follows. Attention is called to unexpected spellings. Dictionary spellings and symbols are also discussed. Along with the discussion

of each word's synonyms, antonyms and homonyms, the noun,
verb, adjective and/or adverb forms of each word are also
given. Upon completion of the preceding matters, the
radio teacher uses the test words in context as students
follow along in their own books. Previous test words are
also used in narratives; therefore, the words appear
frequently in various narrative contexts including regular
textbooks. Classroom teachers are alerted to the need
to review the meanings of presented words as they are en-
countered in other contexts.

None of the individual elements of the St. Louis
Vocabulary Development Program is new. The distinction
between it and other vocabulary programs is the com-
bination of the elements and the massive, systematic
long-term barrage of new words for many students. The
precise reason for the gains on the tests given at the
end of the vocabulary program are not known. The stim-
ulation of the environment by the program may help make
the middle class students more verbal, or it may be that
the students in the program hear many big words and hear
them frequently, or it may be that words become a part
of the atmosphere for the students--a part of their daily
coming and going. Though the program will not apply to
all circumstances, it does show gains.

Donlan

Donlan wrote about a vocabulary program which avoids
the traditional abstract methods and teaches words by sense

experience.[1] First the student has a sense experience
which he discusses and describes in his own words. Words
are introduced orally first and then in writing. Next,
the student applies the word to other situations; in other
words, the student generalizes the meaning by expanding
the experience from the real to the vicarious. Lastly,
the student applies the word in his own speech and writing.

A lesson in Donlan's program might go as follows.
This particular lesson involves the sense of sight and
in particular colors with strange names. Spectrum, ver-
million, chartreuse, turquoise, mauve, and collage are
the words introduced in this lesson. Activity one in-
volves examining a spectrum and answering four questions
about it. Activity two involves examining four colored
sheets which correspond to the colors which are going to
be presented. Placing the colored sheets in the proper
place on the spectrum is activity three. Pronuncing each
word is activity four and activity five involves describing
each color with the spectrum as a guide. Activity six in-
volves looking for examples of each color and creating a
collage using only onecolor. Drawing a spectrum on a
separate sheet of paper and filling in the names of all
ten colors is activity seven. As an extension activity,
the student is to locate a new place on the spectrum, de-
scribe the new color created, give the new color a strange-

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[1]Dan Donlan, "Teaching Words Through Sense Impres-
sions," Language Arts 52 (November 1975): 1090-93.

sounding name, and find an example of his color.

Criscuolo

Criscuolo explains a vocabulary program involving a tape-recorder and a worksheet which is correlated with the tape.[1] Each word is explained fully and the students are instructed to underline the special word in each sentence. Five words are introduced each day. At the end of each set of five words, the students listen to original stories on tape which again use the words in context. A list of words is compiled from the basal reader. The words are listed with three possible meanings next to each word and students are instructed to circle the correct meaning. The most frequently missed words are chosen for further enrichment. A sheet is prepared listing each word separately and using each word in a separate sentence. The original stories are written so that at the most exciting part the narrator asks, "What do you think happened next?" Students are then instructed to write an original ending to the story using as many of the new words as possible.

Aaronson

The idea of using an attractive book as a frame-

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[1]N. P. Criscuolo, "Enriching the Basal Reading Program," Catholic School Journal 67 (Summer 1967): 51-52.

work for a vocabulary program is presented by Aaronson.[1]
The vocabulary building book must be chosen carefully.
It must be significant to the age group and written sim-
ply and directly with a minimum of involved syntax and
metaphors. So the student will not be defeated by a pro-
fusion of words on a page, the print must be large enough.
Sources other than novels can be used such as short stories,
newspapers, or magazines. Words that are chosen to be
studied are grouped according to the skills which are to
be emphasized--structure, context, etymology, use of dic-
tionary, or word pronunciation skills. These words are
placed on word cards which Aaronson considers to be an
efficient study habit. The new words are incorporated
in follow-up writing experiences. This particular pro-
gram is time-consuming and involves much preparation, but
as Aaronson points out, "A popular novel can be a 'status
symbol' to help a student feel he really belongs."[2]

Kahle

Kahle reports about a vocabulary program in which
the students are responsible for finding the words for
class study.[3] There are six criteria a word must meet

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[1]S. Aaronson, "Novel Approach to Vocabulary Instruction,"
Journal of Reading 14 (April 1971): 476-79.

[2]Ibid., p. 478.

[3]David J. Kahle, "Student-Centered Vocabulary,"
English Journal 61 (February 1972): 286-88.

in order to be considered for class study.

1. The rest of the class is probably not familiar with the word
2. The word is unfamiliar to the student finding the word
3. The word is one which will probably be used in the near future
4. The student found the word in a source outside school
5. The word cannot be too technical or scientific
6. The word must be in English

A form is given to the student on which he must supply the following information--word, meaning in own words, sentence, synonym, antonym, and source--about the word he submits for study. To give the students more experience with the words, they write paragraphs using the words correctly, construct posters about the words, and lead the review of previous words. Kahle completes his report with the comment that one presentation of a word does not necessarily jell the meaning in the minds of the students.

Dodson

The program Dodson presents centers around the idea that the most effective method of learning meanings of words is context clues coupled with the student using the word.[1] Each student is given a passage with ten unknown words. The student is asked to read the passage twice. First, the student reads the passage just to get the gist of the selection. During the second reading,

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[1]Dodson, "Context Approach to Vocabulary Study," pp. 49-51.

the student pays particular attention to the underlined words. Students are to try to figure out the meanings of the underlined words before checking with the dictionary. Students demonstrate their understanding of the words by using each in a sentence in which the meaning of the word is clear. During the writing laboratory the students study each other's sentences and make corrections and the teacher walks around the class giving aid whenever necessary.

Crist

Crist's vocabulary program involves a great deal of student input.[1] Crist feels that the key to the success of the program is that the words studied are those which deal with facets of students' lives which they feel are relevant. The pattern for the class involves first a half-hour rapping session about the topic chosen from those which students listed as most relevant to them. During the rapping session the instructor introduces naturally into the conversion fifteen to twenty words. As each word is introduced it is put on the board. Following the half-hour rapping session students pair off and carry on a conversation for a half-hour during which each student is to use each word at least once. Lastly a half-hour is spent doing a brief writing exercise using

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[1]Barabara I. Crist, "One Capsule a Week--A Painless Remedy for Vocabulary Ills," Journal of Reading 19 (November 1975): 147-49.

as many of the new words as possible. The most satisfying part of the program is the interest in words themselves which is developed.

Stanford

Stanford acknowledges that the source of difficulty with word analysis lies not only in the difference between the literal meaning and the current use of words, but also in the fact that most prefixes and root words have many different meanings.[1] For this reason there is a need to provide students with careful explanations of how words are used. Stanford also feels that an important part of a vocabulary program is a built-in continuous review so that students will not forget words previously presented. Each lesson is one page and has two words which do not begin with the same letter. Sometimes paired words are those which are sometimes confused with each other, for example, eminent and imminent. An explanation--pronunciation, origin, meaning, sample sentence, synonyms, antonyms, and related forms--of each word is given on the page. The first written exercise on the page involves a multiple choice exercise which involves the identification of synonyms for each word. The second written exercise on the page is a fill in the blank which involves the recall of the proper vocabulary words both past and present. Stanford completes his article with the comment,

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[1]G. Stanford, "Word Study That Works," English Journal 60 (January 1971): 111-15.

"A successful vocabulary program must provide continuous
practice and review."[1]

St. Mary's Learning Center

The last program to be reviewed was developed at
St. Mary's Learning Center which is an alternative high
school in Chicago.[2] The premise is that students learn
and retain words better if they see and hear them in a
strongly dramatic context. The purpose of the program
is to increase vocabulary and reading skills. Television
is used as literature in the program. Students watch a
network television show which has special words and phrases
superimposed on it. After viewing the episode, students
do a worksheet with questions about the words and con-
cepts presented in the episode.

Summary

It is generally acknowledged that a planned vocab-
ulary program is necessary for vocabulary development.
Ten vocabulary programs were reported in the preceding
pages. Hirsch and Lewinger's program centers around the
"Daily Warm-Up" which involves a sentence with a parti-
cular word that students must complete six activities
about. The St. Louis Vocabulary Development Program in-
volves a radio program along with pretests and retests.

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[1]Stanford, "Word Study That Works," p. 115.

[2]"Courtesy of Network TV," Nation's Schools and
Colleges 1 (December 1974): 24.

Donlan recommends a vocabulary program which emphasizes learning words through sense experiences. Criscuolo's program uses a tape-recorder and worksheets to develop words taken from a basal reader. Aaronson suggests the use of a novel as a basis for a vocabulary program. Kahle's program has students bringing in words for study which meet a six point criteria. Dodson couples context clues with the use of the words by the students. Crist's program involves rap sessions on subjects which the students feel are relevant to them. During the session the teacher naturally introduces words into the conversation. Stanford uses a worksheet which concentrates on two words at a time and incorporates constant review. Television shows with superimposed words or phrases are used in the vocabulary program at the St. Mary Learning Center in Chicago.

Vocabulary Activities

Games

Shankman wrote an article containing general comments about educational games.[1] Games are an incentive to learn vocabulary but should not be used until the pupil has met the words in a meaningful situation. Games are not a bag of tricks but a means to an end. Students will be motivated to play a game again if they are stopped

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[1]Shankman, "Games Reinforce Reading Skills," pp. 262-64.

from playing the game while they desire to go on. A game must meet the unique needs and interests of the individual or group using it. Teachers should encourage the creative efforts of the children to help them develop original games, puzzles, and riddles.

Shankman listed seven characteristics of the games best-liked.

1. Directions are clear
2. Can be played with a minimum of supervision
3. Is fun to play
4. Gives the student a sense of satisfaction
5. Students are stimulated to learn.
6. Students receive personal reconition which helps them to build a better self-image
7. Young children experience immediate success while developing a respect for serious effort

Shankman also listed six characteristics essential for games used in the classroom.

1. Must have a real learning value that reinforces or teaches a reading skill
2. The mechanics of the game should not take much learning time and should not overshadow the skill it is supposed to reinforce
3. The fun should center around the reading skill rather than the game itself
4. Should have a specfic purpose that is meaningful to the childand reinforces or enriches a classroom goal
5. Children should be able to act as leaders in most of the games or they should be self-checking
6. Should be adaptable to the needs, abilities and interests of the children involved

Shankman lists three limitations of games. One limitation is the possibility that a game is just busy work or a play activity. The difficulty of evaluating the effectiveness or value of a game is the second limitation. The third limitation of games is the practice of words in isolation.

Slobian and Haffner caution that games should be used only after a teacher knows his students and knows the games well enough to know which skills are needed, being taught, or reinforced.[1] Bruland feels that the most effective games are those which can be adapted to the vocabulary of different content areas.[2]

Learning Stations

Chance reports about the use of learning stations.[3] Learning stations as presented by Chance can be used with any time schedule, create friendly competition, and allow practice in using vocabulary skills. Chance recommends that before starting the learning stations students should be assigned to teams of four which they will not find out until completing all activities so no antagonism will be displayed towards others. An equal number of students should work at each station for ten to fifteen minutes.

Chance recommends the use of eight stations. The first four stations--Scrabble, Spill and Spell, Word Cubes, and Logic Problems-- can be purchased. The fifth station is crossword puzzles which are teacher-constructed. The station is provided with crossword puzzle dictionaries.

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[1] June J. Slobian and Hubert Haffner, "Using Games for Reading Improvement," Reading Improvement 8 (Fall 1971): 52-54.

[2] Bruland, Learnin' Words," p. 214.

[3] Larry L. Chance, "Using a Learning Stations Approach to Vocabulary Practice," Journal of Reading 18 (December 1974): 244-46.

Students work in pairs at this station. "Concentration,"
which is also teacher-constructed, is the sixth station.
The seventh station is a word search which is teacher-
constructed and can only be used if a specfic vocabulary
is to be worked on. Station eight is titled categories.
one card foreach letter of the alphabet is provided.
Students think of categories--cars, occupations, movie
titles, books-- and then place each category on a card.
Each student receives a piece of paper labeled "Categories"
containing five rows of five boxes. Students randomly
select five alphabet cards which are placed across the
paper and five category cards which are placed down the
paper. Students must fill in the empty boxes with a word
which fits both the category and letter of the box.

One Word A Day

Rogers feels that the success of vocabulary devel-
opment depends on the learner wanting words with which
to express and understand ideas.[1] The learner must con-
tribute curiosity, initiative, and goals. Vocabulary
development is a life-long project. The two objectives
of Rogers' suggested activity are for the student to be-
gin to learn words aggressively from all his environments
and to alert a student to one word a day. One word a day
is a reasonable goal according to Rogers. The teacher

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[1]C. D. Rogers, What One Word?," Reading Improvement
8 (Winter 1971-72): 71-72.

would begin the day by asking the question, "What one

word . . .

1. describes your best friend?
2. how you feel right now?
3. is the hardest for you to remember?
4. sounds the funniest to you?
5. is used the most?
6. has many meanings?
7. is a substitute for the underscored words?
8. have you learned since you awoke?
9. did you find in the newspaper last night that is unfamiliar to you?

Categorizing

Vaughan and Mountain, Pflaum, Murry, and Mattleman all suggest vocabulary activities which involve categorizing. Vaughan and Mountain describe an activity called, "Vocabulary Scavenger Hunt."[1] First, the students individually read a list of words and place each word under the appropriate provided heading. Next the students compare their lists with their other team members. Discussion of the placement of each word ensues and a list which best reflects the team's thinking is written. Next the team must decide who will bring an example of each word, either the actual item or a drawing of it. The team receives two points for each actual item brought in and one point for each drawing. Dealing with the actual object aids retention. Shy children will actively participate in discussion. This activity involves both individual and team work.

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[1] Sally Vaughan and Lee Mountain, "Vocabulary Scavenger Hunt," Teacher 94 (May 1977): 75-77.

Pflaum suggests several vocabulary activities.[1]

1. Begin with a well-known concept and have the student list essential attributes
2. Present related words for analysis
3. Students are presented with categorical terms and a list of mixed words to unmix
4. Students are given a list of words which they must first group and then give a category title to
5. Students are presented with groups of four words—some of which share a relationship—and must name that relationship
6. Students are presented with a descriptive term and then a list of accompanying terms which might apply to it. The student must pick the correct term for the description

Murry describes a lesson involving color chips and charts for paints from a hardware store.[2] A student must first write general headings and classify the chips. Next, the student must name each chip to distinguish it from another. Color dictionaries are prepared with color samples being illustrated. A possible project is to research the intriguing names used by paint suppliers.

Mattleman describes seven vocabulary activities.[3] Substitution involves substituting other words for verbs in sentences without changing the meaning of the sentence. Students are confronted with an event and asked to elaborate on it through answering a series of questions in the expansion activity. An object lesson involves finding

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[1]Pflaum, "Expansion of Meaning Vocabulary," pp. 89-93.

[2]E. Murry, "Treasures for Language," Instructor 82 (February 1973): 57-58.

[3]M. S. Mattleman, "Building Reading Vocabulary: A Treat Not a Treatment," Reading Teacher 27 (October 1973): 51-53.

an esoteric object which is not easily named. The object

is passed around the room and each student is to tell

something about it. Contributions are classified and

each student is to write a haiku. The fourth activity

is called topical word. Students are helped to synthesize

ideas using a single theme and then create verse with

their own expressions. For example, ask for words as-

sociated with a season and then develop a cinquain. In

the next activity a picture is used as a stimulus for

contributing, categorizing, and extending language. In

the sixth activity, students create their own riddles

which they read to the class. Mattleman's seventh ac-

tivity involves the teacher picking a group of people or

objects. A discussion follows in which the class decides

what makes the group a group.

Morphemes

Morphemes are the topic of Burmeister's activities.[1]

A morpheme is the smallest unit of meaning in language.

Morphemes can either be free or bound. A free morpheme

is uninflected words such as elephant, cat, or dog. A

bound morpheme has meaning but cannot stand alone such

as unkind, going, geo + graphy, or worldly.

"Morpheme Baseball" is one of Burmeister"s activities.

Bound morphemes are placed in a container and a baseball

diamond is drawn on the board. The class is divided into

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[1]Lou E. Burmeister, "Vocabulary Development in Content
Areas Through the Use of Morphemes," Journal of Reading 19
(March 1976): 481-87.

two teams. The batter draws a card. To get to first base the batter must define the morpheme. To get to second base the batter must give a word in a content area which uses the morpheme. To get to third base the batter must define the word or use it in a sentence. To get to home base the batter must give another word using the morpheme.

Burmeister's "Morpheme Tree" is a bulletin board display. The trunk of the tree has a morpheme with its meaning. Each of the branches and leaves is composed of two or more morphemes one of which is the same as the morpheme on the trunk.

Burmeister's third morpheme activity is "Morpheme Concentration." Pairs of cards are constructed so that when they are put together they form words used in the classroom. The cards are numbered on the back and arranged in their numerical order. The first player calls out two numbers and tries to make one word using the morphemes shown. If the player can make a word, he must define the word or use it in a sentence to obtain the cards for points. A variation to this game is to encourage students to make up their own words by combining the exposed morphemes and defining them. For example, mono and sophy are combined to make monosophy which is defined as "the wisdom of one person".

The last of Burmeister's activities is a type of morpheme bingo called "Morpheme Words". The teacher prepares blank bingo cards. On the board morphemes which

can be combined with other morphemes to make up a word are listed. It is best for the teacher to use families of words. Students write the common or family morphemes on several slips of paper. The student then writes twenty-four of the other morphemes in random order on his card. Next, the teacher gives a sentence which contains the definition of one of the original words; for example, "Many people believe in one God--one God." At this point students who have <u>thesism</u> on their cards cover it with their <u>mono</u> slip. For a student to win he must be able to call back the words and give their meanings.

Landry suggested another morpheme activity.[1] A prefix, root, or suffix is introduced. It is placed in the center of a flower diagram. Petals of the flower are filled with words that contain the root or affix in the center of the flower.

Product Names

Agee feels that product names can be used to make students aware of some of the basic word making techniques.[2] Some examples of this technique are Clamato = clam + (tom)ato, Cranapple = cran(berry) + apple, or

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[1]J. Landry, "Say It With Flowers: Vocabulary Enrichment," <u>Instructor</u> 83 (October 1973): 162.

[2]H. Agee, "Zonking in the Classroom or Language Lessons from the Marketplace: Neologisms," <u>Elementary English</u> 49 (May 1972): 780-82.

Onyums = on(ion) + yum(my) + s. Students might also be asked to explain why a product would be given a particular name. Take the product "Screaming Yellow Zonkers". The student might be asked such questions as "Why use the word screaming?" or "What is a zonker?". Graff also suggests the use of product names as a vocabulary activity.[1] He suggests researching common words--dove(dishsoap), crest(toothpaste), raid(bugkiller)-- which are used as product names as far as the true meaning of the word and why a particular product would want to use that particular word.

From Cliches to Palindromes

Karbal and Graff suggest the study of cliches and idioms, respectively. In the study of cliches Karbal suggests having students select alternatives to overused words and expressions.[2] Graff reminds the teacher that idioms must be taken beyond their literal meaning. A possible activity is to illustrate the idiom as though they should be taken literally.[3]

Lake mentions six possible vocabulary activities.[4] Lake begins with the creation of puns using homonyms

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[1]V. A. Graff, "Plenty of Words," Elementary School Journal 68 (October 1967): 9-12.

[2]Karbal, "Keying in on Vocabulary," p. 368.

[3]Graff, "Plenty of Words," p. 10.

[4]Lake, "First Aid for Vocabulary," pp. 783-84.

followed by rhyme games such as, "What is a wet hobo?"--
a damp tramp. Another activity is having students create
Tom Swifties which take advantage of the -ly ending of
adverbs. "'I'll never pat another lion,' said Tom off-
handedly," is an example of a Tom Swiftie. Word tricks
such things as CR^{EAM} to represent vanishing cream. Chal-
lenges such as, "Can you make another word from chesty?"
are another activity. The last activity Lake suggests
is having students find palindromes or mirror words such
as radar or level.

Description and Direction

Murry suggests two other vocabulary activities.[1]
One is called, "Bag of Junk" and the other is called,
"Getting More from Maps". "Bag of Junk" can be used for
a couple of different activities. One activity is to de-
scribe the objects in the bag either seen or unseen. A
second activity is for each child to pick a piece of junk
from the bag and to incorporate that piece of junk in
an oral class story. "Getting More from Maps" is best
begun with local maps. Activities may be the answer to
such questions as, "How do you get from the city library
to the courthouse?" or "How did the _____ River get
its name?".

Tic-Tac-Toe

Mallett describes a vocabulary activity which gives

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[1]Murry, "Treasures for Language," p. 58.

a new twist to the game of Tic-Tac-Toe.[1] The teacher

places a large Tic-Tac-Toe board on the blackboard. Next

two sets of vocabulary cards are constructed--one round

and one square. These cards are placed on the chalk tray

with the word side hidden. The class is divided into

two teams. Alternately one person from each team picks

a card. That person must pronounce the word on the card

and use it in a sentence in order to win the card for

his team.

Bingo

Karbal suggests three alternatives to the game of

"Bingo" as a vocabulary activity.[2] One way is to have

the players match a synonym on their cards with the word

given by the caller. Another way is to have the players

find the word or words on their cards which match the

object being held by the caller. A third method is to

have the caller read a definition and the players find

the correct word on their cards.

Multiple Meanings

Pflaum describes two activities for use with words

that have multiple meanings.[3] One activity is to have

students write a sentence for each meaning which shows

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[1]Jerry J. Mallett, "Add Spice to Vocabulary Study,"
Language Arts 52 (September 1975): 844.

[2]Karbal, "Keying in on Vocabulary," pp. 367-69.

[3]Pflaum, "Expansion of Meaning Vocabulary," p. 92.

the contrast between the meanings. The second activity
is to present a word with many meanings in various con-
texts. The students must describe the meaning of the
word as it is used in each context in their own words.

Summary

Shankman gives guidelines concerning educational
games including the characteristics of the best-liked
games, characteristics essential for games used in the
classroom, and the limitations of games. Chance describes
eight learning stations and their use. Rogers describes
an activity which brings about a concentration on one
word. Vaughan and Mountain, Pflaum, Murry, and Mattleman
suggest vocabulary activities that involve categorizing.
Burmeister describes four activities which stress mor-
phemes. Product names, cliches, idioms, haiku, homonyms,
palindromes, descriptions, and directions are some of
the other reported activities.

CHAPTER III

PROCEDURE

Pilot Test

A pilot test was undertaken. The pilot test was constructed by numbering the vocabulary words on the vocabulary ditto sheets in the order they appeared on the sheets. The ditto sheets were arranged according to the way the stories appear in the textbook. Every eighth word was chosen until a total of ten words was obtained. These words were listed down the right hand side of the paper with their meanings, obtained from the glossary of the textbook, arranged randomly down the left hand side. Three extra definitions were included to avoid proper matching by the process of elimination. Twenty-seven sixth grade students took the pilot test with the results ranging from three words which no students missed to one word which nineteen students missed.[1] It was concluded that the test did differentiate between students.

Test-Outs

The study, which ran from November 1, 1977 to March 30, 1978, involved the vocabulary in units three and four

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[1]The format of the pilot test and the frequency of errors on the pilot test is shown in appendix A.

of the Macmillian series, level fourteen, Into New Worlds
1970 edition.[1]

A vocabulary test was constructed for each unit
separately. The words in each unit were numbered in the
order they appeared on the vocabulary ditto sheets. Every
third word was chosen and arranged alphabetically. Thirty
words were needed from each unit; therefore, in unit four
after arranging the chosen words in alphabetical order,
every fifth word was eliminated to obtain thirty words.

The "test-out" for each unit consisted of three
parts with ten words each. As in the pilot test, the
words were arranged on the right hand side of the paper
and their meanings (first definition from the glossary
of the textbook) were randomly arranged down the left
hand side with three extra definitions included.[2] The
vocabulary words were modified so as to appear on the
test-out as each appeared in the glossary, which was not
necessarily as they appeared on the vocabulary sheets.
For example, the word courteously appeared on the vo-
cabulary sheet; courteous was in the glossary and there-
fore used on the test-out.

Before a student began a unit, he would spend three
consecutive days taking each of the three parts of that

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[1]Albert J. Harris, Into New Worlds, Macmillian
Reading Program, Level 14 (New York: Macmillian Co.,
1970), pp. 164-347.

[2]The format for the test-outs for units three and
four are shown in appendixes B and C, respectively.

particular unit's vocabulary test-out. Each test session lasted approximately fifteen minutes. This was intended to eliminate the element of fatigue.

Assigned Vocabulary Activities

The results of each student's vocabulary test-out determined the amount and type of vocabulary work each student did for that particular unit. No matter what the student's score though, each student was required to construct a vocabulary booklet. Each word missed on the test-out was placed in the vocabulary booklet. Printed sheets were made available from which the students would cut the appropriate definition to paste in his vocabulary booklet. Each word was then used in a meaningful sentence.

Any student obtaining 100 percent on the test-out was excused from all vocabulary activities. Those students (group A) who obtained a score of 90 percent through 99 percent (one, two, or three errors) were required to choose one of the following two activities. Activity one involved placing each missed word in a vertical position, picking a category from a box, and thinking of a word for each letter of the missed word which fit the picked category.[1] Activity two involved illustrating each missed word with pictures from magazines, newspapers,

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[1]An example of activity A[1] is shown in appendix D.

and similar materials.[1]

Those students (group B) who obtained a score of 80 percent through 89 percent (four, five, or six errors) were required to choose one of the following two activities. Activity one involved the construction of a word search in which all words missed were included. The definition of each hidden word was listed below to act as a clue to which words were being searched for.[2] Activity two involved keeping the correct order of the letters of each missed word and placing extra letters randomly between them to hide the actual word. The definition of each hidden word was listed next to each group of letters to act as a clue to the hidden word.[3]

Those students who obtained a score of 79 percent or less (seven or more errors) were placed in group C and required to do all the vocabulary ditto sheets. The sheets were modified by crossing out the choices given within each sentence.[4] Each word missed on the vocabulary sheets was placed in the vocabulary booklet along with its definition and use in a meaningful sentence.

Post-Test

After all students completed units three and four,

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[1]An example of activity A[2] is shown in appendix E.

[2]An example of activity B[1] is shown in appendix F.

[3]An example of activity B[2] is shown in appendix G.

[4]An example of activity C is shown in appendix H.

a post-test was given. The post-test consisted of all
the words missed on the test-outs and/or the ditto sheets
by nine or more students. The words were placed in groups
of eleven for parts one and two and in a group of twelve
for part three. The same format used on the pilot test
and test-outs was used for the post-test.[1]

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[1]The format for the post-test is shown in appendix I.

CHAPTER IV

RESULTS AND CONCLUSIONS

Frequency of Errors on Unit Three Test-Out

The frequency of errors for the unit three test-out words ranged from zero students missing "incredible," to "enmesh" and "sluggish" each being missed by fifteen students.[1] Of the twenty-eight students involved in the test-out, six scored in the A activity category, six scored in the B activity category, and sixteen scored in the C activity category--vocabulary sheets.

Frequency of Errors on Unit Three Vocabulary Sheets

Six unit three test-out words were missed on the vocabulary sheets by students who had gotten them correct on the test-out. The words missed and the number of students who missed them were adequate--four, capsule--one, despite--one, isolate--two, muffle--one, and trade wind--seven.

A total of forty-five different words were missed by the sixteen students required to do the vocabulary sheets which present a total of eighty-four words. Of

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[1]The frequency of errors on the unit three test-out is listed in table 1.

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the forty-five words missed on the vocabulary sheets, thirty words were each missed by on student, ten words were each missed by two students, one word was missed by three students, two words were each missed by four students, one word was missed by five students, and one word was missed by seven students.[1]

Frequency of Errors on Unit Three
Test-Out and Vocabulary Sheets

Eight words were missed by students on both the test-out and the vocabulary sheets. Of the eight words, five--amateur, classify, cooper, enmesh, and necessity-- were each missed by one student. "Adequate" was missed by six students and "isolate" was missed by seven students. "Enmesh" was missed on the test-out by one student who also missed the word twice on the vocabulary sheets. "Isolate" was missed by two students on the test-out and each of these students also missed "isolate" twice on the vocabulary sheets.[2]

Multiple Errors on Unit Three Vocabulary Sheets

"Adequate" was missed twice on the vocabulary sheets by one student who had not missed it on the test-out.

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[1]The frequency of errors on the unit three vocabulary sheets is listed in table 2.

[2]The frequency of errors on the unit three test-out and vocabulary sheets is listed in table 3.

Frequency of Errors on Unit Four Test-Out

The frequency of errors for the unit four test-out words ranged from zero students missing "knapsack" and "margarine" to twenty-two students missing "shaddock".[1] Of the twenty-eight students involved in the test-out, four scored in the A activity category, one scored in the B activity category, and twenty-three scored in the C activity category--vocabulary sheets.

Frequency of Errors on Unit Four
Vocabulary Sheets

Eleven unit four test-out words were missed on the vocabulary sheets by students who had not missed them on the test-out. The words missed and the number of students who missed them are alternate--three, armistice--one, commit--one, conning tower--one, denounce--six, economic--one, exception--one, fundamental--one, margarine--one, salvation--two, and sentiment--five.

A total of seventy-four different words were missed by the twenty-three students required to do the vocabulary sheets which present a total of 116 words. Of the words missed on the vocabulary sheets, thirty-three words were each missed by one student, seventeen words were each missed by two students, eleven words were each missed by three students, two words were each missed by four

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[1] The frequency of errors on the unit four test-out is listed in table 4.

students, three words were each missed by five students,
three words were each missed by six students, one word
was missed by seven students, two words were each missed
by eleven students, one word was missed by thirteen stu-
dents, and one word was missed by sixteen students.[1]

Frequency of Errors on Unit Four
Test-Out and Vocabulary Sheets

Eleven words were missed by students on both the
test-out and the vocabulary sheets. Of the eleven words,
four--primitive, remedy, salvation,and yaws--were each
missed by one student and four--armistice, fundamental,
grudge, and offensive--were each missed by two students.
"Monomania" was missed by three students. "Denounce" was
missed by seven students and "sentiment" was missed by
eight students.[2]

Multiple Errors on Unit Four Vocabulary Sheets

"Denounce" was missed twice on the vocabulary sheets
by one person who had not missed it on the test-out.

Frequency of Errors on Post-Test

The frequency of errors for the post-test covering
units three and four ranged from zero students missing
"avalanche", "caballero", "crystal", "fundamental",

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[1] The frequency of errors on the unit four vocabu-
lary sheets is listed in table 5.

[2] The frequency of errors on the unit four test-out
and vocabulary sheets is listed in table 6.

"racial", "salvation", and "viperfish" to thirteen students missing "auxiliary". Other errors included four words--denounce, remedy, shaddock, and yaws--each being missed by one student; ten words--adequate, armistice, commit, conspiracy, encrusted, grudge, isolate, parcel, recede, and vital--each being missed by two students; two words--amateur and stately--each being missed by four students; two words--monomania and sluggish--each being missed by five students; three words--ballast, purge, and trade wind--each being missed by six students; three words--billow, offensive, and sentiment--each being missed by seven students; one word--resolution--being missed by eight students; and one word--enmesh--being missed by nine students.[1]

Test-Out and Post-test: Words and Error Frequency

Table 8 shows words which were missed on both the test-out and the post-test. The table also shows the number of students who missed a particular word on the test-out and the number of those same students who did not miss the word on the post-test. By subtracting those two numbers, the number of students who did not learn a particular word during the study is known. The percentage of students who did not learn a word which they did not

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[1]The frequency of errors on the post-test is listed in table 7.

know previously ranged from 6.25 percent to 36.36 percent. In actual numbers this means a range one to seven students did not know a particular word at the end of the study while at the time of the test-out the range was from nine to twenty-one. All the students involved with table 8 did activity C.

Test-Out, Vocabulary Sheet, and Post-Test: Words and Error Frequency

Table 9 indicates words which were missed by individual students on the test-out, on the vocabulary sheet, and on the post-test by some of the same students. Listed is the number of students who missed a particular word on both the test-out and vocabulary sheets plus the number of those same students who knew the word on the post-test. When those two numbers are subtracted, the number of students who did not learn the word during the study is obtained. The percentage of students who did not learn a particular word ranged from 11.11 percent to 50.00 percent. In actual numbers this means a range of one to two students did not know a particular word at the end of the study while at the time of the test-out the range was from two to nine students.

Vocabulary Sheet and Post-Test: Words and Error Frequency

Table 10 indicates words which were missed by individual students on the vocabulary sheets but not on the test-outs and then missed by some of the same students

on the post-test. Listed is the number of students who missed a particular word on the vocabulary sheets and the number of those same students who knew the word on the post-test. When those two numbers are subtracted, the number of students who did not learn the word during the study is obtained. The percentage of students who did not learn a particular word ranged from 14.28 percent to 45.45 percent. In actual numbers this means a range of one to five students did not know a particular word at the end of the study while at the time of the test-out the range was from four to twelve students.

Post-Test Only: Words and Error Frequency

Table 11 lists words which were missed by particular students on only the post-test. The table also tells which activity the students were involved with during the study. All the words except "commit" included students who had been involved with activity C. Of the twenty words listed, thirteen--armistice, ballast, encrusted, grudge, monomania, offensive, parcel, recede, shaddock, sluggish, stately, vital, and yaws--involve only students who did activity C. Ten of the twenty words listed--armistice, ballast, commit, grudge, recede, shaddock, sluggish, stately, vital, and yaws--were each missed by one student. Three of the twenty words listed-- encrusted, monomania, and parcel--were each missed by two students. Three words--purge, sentiment, and trade wind--were each missed by four students. "Offensive"

was the only word of the twenty words listed which was
missed by five students. Two words--enmesh and resolution--
were each missed by six students. "Auxilary" was the
only word which was missed by eight students.

Percent Correct on Test-Outs and Post-Test

Table 12 lists the percentage correct each student
obtained on the two test-outs and the post-test. The
complete data for all twenty-eight students are given.
Unit three test-out yielded the following percentages:
one student at 36.36 percent; one student at 46.66 percent;
six students from 50.00 percent to 56.66 percent; two stu-
dents at 63.33 percent; six students from 70.00 percent
to 76.66 percent; six students from 80.00 percent to 86.66
percent; six students from 93.33 percent to 96.66 percent.
Unit four test-out yielded the following percentages:
three students from 40.00 percent to 43.33 percent; five
students from 50.00 percent to 56.66 percent; eleven stu-
dents from 60.00 percent to 66.66 percent; four students
from 70.00 percent to 76.66 percent; one student at 86.66
percent; four students from 90.00 percent to 93.33 percent.
The post-test yielded the following percentages: one stu-
dent at 47.05 percent; one student at 64.70 percent;
three students from 73.52 percent to 76.47 percent; se-
ven students from 82.35 percent to 88.23 percent; eleven
students from 91.17 percent to 97.05 percent; five stu-
dents at 100 percent.

Twenty-five students improved their percentage score between unit three test-out and the post-test. The range of improvement was from .39 percent to 41.17 percent. Twenty-six students improved their percentage score between unit four test-out and the post-test. The range of improvement was from .78 percent to 60.00 percent. Of the five students with scores below 80.00 percent on the post-test, one student made a percentage gain of more than twenty-five points from the post-test score to the test-out scores; one student made a percentage gain of more than twenty points from the post-test score to the test-out scores; one student made percentage gains of 3.14 percent and 13.14 percent on units three and four test-outs, respectively, when comparing the test-out scores to the post-test score; one student gained 10.39 percent on the post-test score over the unit three test-out score but lost 2.95 percent on the post-test score compared to the unit four test-out score; one student gained 1.37 percent on the post-test score over unit three test-out score but lost 1.96 percent on the post-test score compared to the unit four test-out score.

Comparison of Test-Out, Vocabulary Sheets, Post-Test, and Activity

Table 13 lists the students individually and indicates for each student the number of words missed on the test-outs and/or vocabulary sheets and the number of the same words missed on the post-test. Also included is the

number of words not previously missed on either the test-
outs or vocabulary sheets but missed on the post-test.

Sixteen students did not miss any unit three test-
out words on the post-test. The range of unit three test-
out/post-test words missed by these students was one to
six at the time of the test-out. Twelve students missed
some of the same words on the post-test as they had missed
on the unit three test-out. All twelve students were
assigned activity C, vocabulary sheets. Five students
missed one word on the post-test which they had previously
missed on the unit three test-out. The range of unit
three test-out/post-test words missed by these students
was five to eleven at the time of the test-out. Four
students missed two words on the post-test which they had
previously missed on unit three test-out. The range of
unit three test-out/post-test words missed by these stu-
dents was six to twelve at the time of the test-out. One
student missed three words on the post-test which he had
previously missed on the unit three test-out. The stu-
dent had originally missed seven unit three test-out/post-
test words. One student missed four words on the post-
test which he had previously missed on the unit three test-
out. The student had originally missed seven unit three
test-out/post-test words. One student missed seven words
on the post-test which he had previously missed on the
unit three test-out. The student had originally missed
eleven unit three test-out/post-test words.

Twenty-one students did not miss any unit four test-out words on the post-test. The range of unit four test-out/post-test words missed by these students was two to thirteen at the time of the test-out. Seven students missed some of the same words on the post-test as they had missed on the unit four test-out. All seven students were assigned activity C, vocabulary sheets. Two students missed one word on the post-test which they had previously missed on the unit four test-out. The original number of unit four test-out/post-test words missed by each student was seven. Three students missed two words on the post-test which they had previously missed on the unit four test-out. The range of unit four test-out/post-test words missed by these students was four to nine at the time of the test-out. One student missed three words on the post-test which he had previously missed on the unit four test-out. The student had originally missed ten unit four test-out/post-test words. One student missed five words on the post-test which he had previously missed on the unit four test-out. The student had originally missed twelve unit four test-out/post-test words.

Of the sixteen students who were assigned activity C, vocabulary sheets, for unit three, eight did not miss any words in doing the unit three vocabulary sheets that were included in the post-test. Eight of the students missed one or more words which were included on the post-test in doing the unit three vocabulary sheets. One student who had missed one unit three vocabulary sheet/post-test

word in doing the vocabulary sheets missed that same word on the post-test. The remaining seven students did not miss on the post-test any of the unit three vocabulary sheet/post-test words they had missed in doing the vocabulary sheets.

Of the twenty-three students who were assigned activity C, vocabulary sheets, for unit four, three did not miss any words in doing the unit four vocabulary sheets that were included in the post-test. Twenty students missed one or more words which were included on the post-test in doing the vocabulary sheets. Four of the twenty students missed one or more words on the post-test which they had also missed on the vocabulary sheet. Two students missed one word on the post-test which they had previously missed on the vocabulary sheets. The original number of vocabulary sheet/post-test words missed by the students was four and five. One student missed two words on the post-test which he had previously missed on the vocabulary sheets. The student had originally missed five vocabulary sheet/post-test words. One student missed three words on the post-test which he had previously missed on the vocabulary sheets. The student had originally missed four vocabulary sheet/post-test words. The remaining seventeen students did not miss on the post-test any of the vocabulary sheet/post-test words they had missed in doing the vocabulary sheets.

Of the sixteen students who were assigned activity

C, vocabulary sheets, for unit three, four of the students did not miss any words on both the unit three test-out and vocabulary sheets which were included in the post-test. Twelve of the students missed the same post-test words on the unit three vocabulary sheets as they had on the unit three test-out. At the time of the post-test ten of the students did not miss any unit three test-out/ vocabulary sheet/post-test words. Two of the twelve students each missed one unit three test-out/vocabulary sheet/ post-test word in taking the post-test. One student had originally missed one unit three test-out/vocabulary sheet/ post-test word in doing the vocabulary sheets and the other student had missed three words.

Of the twent-three students who were assigned activity C, vocabulary sheets, for unit four, eight of the students did not miss any words on both the unit four test-out and vocabulary sheets which were included in the post-test. Fifteen of the students missed the same post-test words on the unit four vocabulary sheets as they had on the unit four test-out. At the time of the post-test eleven of the students did not miss any unit four test-out/vocabulary sheet/post-test words. Four of the fifteen students also missed some of the same words on the post-test. Two students missed one unit four test-out/vocabulary sheet/post-test word on the post-test. The original number of unit four test-out/vocabulary sheet/post-test words missed by each student was two. One student missed

two unit four test-out/vocabulary sheet/post-test words
on the post-test. The student had originally missed three
test-out/vocabulary sheet/post-test words in doing the
vocabulary sheets.

Table 13 also shows the number of words which were
missed by individuals on the post-test but not missed by
those same students on either of the test-outs or either
of the vocabulary sheet sets. Of the fifteen students
who did activity C for both unit three and unit four,
three did not miss any words not previously missed;
seven students missed one word not previously missed; one
student missed two words not previously missed; three stu-
dents missed four words not previously missed. The post-
test included three words from unit four--auxiliary,
crystal, and resolution--which were not part of either
test-out. Of the fifteen students who did activity C,
vocabulary sheets, for both units, nine students did not
miss any of the fore-mentioned words, one student missed
one of the fore-mentioned words and five students missed
two of the fore-mentioned words. Of the four students
who did activity B[2] for unit three and activity C for unit
four, one did not miss any new words on the post-test;
one missed one new word which was from unit four; one
missed one new word from both unit three and unit four;
one missed three new words from unit three and one new
word from unit four. Of the four students who did activity
A[1] for unit three and activity C for unit four, one student

did not miss any new words on the post-test; one student missed one new word from unit three; one student missed two new words from unit three and one new word from unit four; one student missed one of the fore-mentioned vocabulary words. Two students did activity B^2 for unit three and activity A^1 for unit four. One of the students missed one new word from each unit on the post-test and the other student missed one of the fore-mentioned vocabulary words on the post-test. One student did activity A^2 for unit three and activity B^1 for unit four. The student missed two new words from unit three, one word from unit four, and one of the fore-mentioned vocabulary words on the post-test. One student did activity C for unit three and activity A^1 for unit four. The student missed two new words from unit four on the post-test. One student did activity A^2 for unit three and activity A^1 for unit four. The student did not miss any new words in taking the post-test.

Conclusions

Tables 12 and 13 lead to two conclusions. The first conclusion is that overall the students obtained a mastery level, and the second conclusion is that those students who had good test scores to begin with maintained those good scores throughout the study. The overall mastery level obtained by students indicates that the assigned activities were appropriate and beneficial. Another conclusion is that the modified vocabulary sheets fostered

the use of the glossary as observed by the author. The author also concluded that not all the words studied are necessarily words of common usage based on the fact that eight of the thirty-four words on the post-test--billow, caballero, enmesh, monomania, shaddock, trade wind, viperfish, and yaws--were not included in the Word Frequency Book by Carol, Davis, and Richman.[1] The final conclusion is that some of the definitions given by the glossary are misleading or vague; therefore, making it difficult for students to make a proper match on the tests. For example, the word "grudge" is defined as "to envy someone because of something he has".

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[1]John B. Carroll, Peter Davis, and Barry Richman, Word Frequency Book,(Boston: Houghton Mifflin Co., 1971).

TABLES

TABLE 1

FREQUENCY OF ERRORS ON UNIT THREE TEST-OUT

Word	Frequency	Word	Frequency
adequate	13	encrusted	10
amateur	11	enmesh	15
aqualung	7	gust	1
avalanche	2	incredible	0
ballast	17	isolate	12
billow	21	muffle	4
caballero	13	necessity	4
capsule	4	parcel	9
clash	5	plastic	2
classify	3	porpoise	5
cooper	6	recede	9
coral	4	secrecy	2
delicacy	7	sluggish	15
despite	4	trade wind	4
discharge	4	viperfish	13

TABLE 2

FREQUENCY OF ERRORS ON UNIT THREE
VOCABULARY SHEETS

Word	Frequency	Word	Frequency
abound	5	isolate	2
adequate	4	maneuver	1
apparatus	1	marine	1
authorize	1	monsoon	1
becalm	2	muffle	1
block and tackle	1	neutral	2
capsule	1	plexiglass	1
consume	2	proportion	4
cruiser	1	sentry	1
decompression chamber	1	sextant	1
deliberate	1	shoal	1
derelict	1	sonar	2
despite	1	specimen	1
diet	1	stern	1
element	1	superstition	1
expanse	3	temporary	1
factor	2	torment	1
foremast	2	torpedo	1
fortify	2	trade wind	7
handicap	1	tranquil	1
hulk	2	transparent	1
hydrophone	2	trench	1
		tributary	1

TABLE 3

FREQUENCY OF ERRORS ON UNIT THREE
TEST-OUT AND VOCABULARY SHEETS

Words	Frequency
adequate	6
amateur	1
classify	1
cooper	1
enmesh	1
isolate	7
necessity	1
trade wind	2

TABLE 4

FREQUENCY OF ERRORS ON UNIT FOUR TEST-OUT

Word	Frequency	Word	Frequency
alternate	1	monomania	21
armistice	20	offensive	9
artillery	3	parallel	3
assume	1	plateau	6
commit	16	primitive	8
conning tower	1	purge	13
conspiracy	17	racial	14
denounce	13	reduce	3
economic	5	remedy	9
exception	3	salvation	8
fundamental	16	sentiment	12
grudge	11	shaddock	22
knapsack	0	stately	19
margarine	0	vital	10
maroon	8	yaws	18

TABLE 5

FREQUENCY OF ERRORS ON UNIT FOUR
VOCABULARY SHEETS

Word	Frequency	Word	Frequency
afflict	1	infernal	1
allegiance	1	initial	2
alternate	3	insight	1
armistice	1	insurrection	2
assume	1	liberation	1
attainment	3	lunatic	1
auxiliary	11	magazine	3
avalanche	13	malaria	1
blockade	2	mania	3
camellia	2	margarine	1
catastrophic	2	martyr	1
cicada	2	massacre	1
commit	1	missile	2
concentration camp	1	motives	1
conning tower	1	negotiate	2
consequences	6	occupation	2
continual	1	perish	1
crystal	16	pike	1
dastardly	3	precaution	4
dedicate	2	previous	3
delegate	2	prophecy	1
denounce	6	qualify	1
despair	1	resolution	11
domestic	5	saboteur	1
economic	1	salvation	2
embody	1	sanitation	2
exception	1	sentiment	5
famine	3	slaughter	3
fanatical	6	submit	1
fortitude	1	succession	3
fundamental	1	taro	1
gallows	3	tatami	1
gaunt	1	turbulent	1
hostile	2	turmoil	4
hysteria	5	unidentifiable	2
infamy	3	unprovoked	2
infection	7	welfare	2

TABLE 6

FREQUENCY OF ERRORS ON UNIT FOUR
TEST-OUT AND VOCABULARY SHEETS

Words	Frequency
armistice	2
denounce	7
fundamental	2
grudge	2
monomania	3
offensive	2
primitive	1
remedy	1
salvation	1
sentiment	8
yaws	1

TABLE 7

FREQUENCY OF ERRORS ON POST-TEST

Word	Frequency	Word	Frequency
adequate	2	monomania	5
amateur	4	offensive	7
armistice	2	parcel	2
auxiliary	13	purge	6
avalanche	0	racial	0
ballast	6	recede	2
billow	7	remedy	1
caballero	0	resolution	8
commit	2	salvation	0
conspiracy	2	sentiment	7
crystal	0	shaddock	1
denounce	1	sluggish	5
encrusted	2	stately	4
enmesh	9	trade wind	6
fundamental	0	viperfish	0
grudge	2	vital	2
isolate	2	yaws	1

TABLE 8

TEST-OUT AND POST-TEST: WORDS AND
ERROR FREQUENCY

Words missed on test-out and post-test	1	2	3	4
adequate	13	12	7.69	1 C
amateur	11	7	36.36	4 C
ballast	17	12	29.41	5 C
billow	21	14	33.33	7 C
commit	16	15	6.25	1 C
conspiracy	17	15	11.76	2 C
encrusted	10	9	10.00	1 C
enmesh	15	13	13.33	2 C
grudge	11	10	9.09	1 C
isolate	12	11	8.33	1 C
monomania	21	18	14.28	3 C
offensive	9	8	11.11	1 C
purge	13	11	15.38	2 C
recede	9	8	11.11	1 C
remedy	9	8	11.11	1 C
sluggish	15	12	20.00	3 C
stately	19	16	15.78	3 C
vital	10	9	10.00	1 C

[1]Number of students who missed the word on the test-out.

[2]Number of students who did not miss the word on the post-test.

[3]Percent of students who did not learn the word.

[4]Number of students who did not learn the word and the activity done by those students.

TABLE 9

TEST-OUT, VOCABULARY SHEET, AND POST-TEST:
WORDS AND ERROR FREQUENCY

Words missed on test-out, vocabulary sheet and post-test	1	2	3	4
adequate	6	5	16.66	1 C
armistice	2	1	50.00	1 C
denounce	7	6	14.28	1 C
isolate	9	8	11.11	1 C
offensive	2	1	50.00	1 C
sentiment	8	6	25.00	2 C
trade wind	2	1	50.00	1 C

TABLE 10

VOCABULARY SHEET AND POST-TEST:
WORDS AND ERROR FREQUENCY

Words missed on vocabulary sheet and post-test	5	2	3	4
auxiliary	11	6	45.45	5 C
resolution	12	10	16.66	2 C
sentiment	4	3	25.00	1 C
trade wind	7	6	14.28	1 C

[1] Number of students who missed the word on the test-out, vocabulary sheet and post-test.

[2] Number of students who did not miss the word on the post-test.

[3] Percent of students who did not learn the word.

[4] Number of students who did not learn the word and the activity done by those students.

[5] Number of students who missed the word on the vocabulary sheet and post-test.

TABLE 11

POST-TEST ONLY: WORDS AND ERROR FREQUENCY

Words missed only on the post-test	Number of students who missed the word and assigned activity			Total
armistice	1 C			1
auxiliary	7 C		1 A[1]	8
ballast	1 C			1
commit			1 A[1]	1
encrusted	2 C			2
enmesh	5 C	1 B[1]		6
grudge	1 C			1
monomania	2 C			2
offensive	5 C			5
parcel	2 C			2
purge	3 C		1 A[1]	4
recede	1 C			1
resolution	5 C	1 B[1]		6
sentiment	2 C	1 B[1]	1 A[1]	4
shaddock	1 C			1
sluggish	1 C			1
stately	1 C			1
trade wind	2 C	1 B[1]	1 A[1]	4
vital	1 C			1
yaws	1 C			1

TABLE 12

PERCENT CORRECT ON TEST-OUTS AND POST-TEST

Student	Unit three test-out	Unit four test-out	Post-test
Carla	63.33	50.00	94.11
Pat B.	83.33	63.33	88.23
Lori	80.00	66.66	100.00
Sheila	70.00	90.00	91.17
Kelly	86.66	93.33	97.05
Jon	93.33	76.66	88.23
Chris G.	93.33	66.66	94.11
Jeff H.	73.33	63.33	100.00
Julie	53.33	53.33	73.52
Vern	56.66	60.00	82.35
Jim	56.66	50.00	82.35
Pat K.	50.00	60.00	91.17
Chris K.	93.33	76.66	100.00
Sue	46.66	43.33	73.52
Jeannine	86.66	63.33	97.05
Meghan	93.33	86.66	88.23
Jeff M.	56.66	43.33	88.23
Eileen	76.66	63.33	97.05
Linda	53.33	56.66	82.35
David	73.33	63.33	76.47
Steve P.	96.66	90.00	100.00
John	36.66	50.00	47.05
Lester	70.00	70.00	91.17
Bill	63.33	66.66	64.70
Dale	83.33	70.00	94.11
Andy	96.66	60.00	97.05
Debbie	86.66	93.33	94.11
Steve Z.	73.33	40.00	100.00

TABLE 13

COMPARISON OF TEST-OUT, VOCABULARY SHEETS, POST-TEST, AND ASSIGNED ACTIVITY

Student	Unit Three A	B	C	D	Unit Four A	B	C	D	Unit Three E	F	G	Unit Four E	F	G	New Words H	I
Carla	6	2	2	C_2	10	4	3	C	1	0	0	0	0	0	1	0
Pat B.	3	X	X	B^2	10	3	0	C	0	X	X	0	0	X	4	0
Lori	6	X	X	B^2	8	4	2	C	0	X	X	0	0	0	0	0
Sheila	6	2	1	C_2	2	X	X	A^1	1	0	0	0	X	X	2	0
Kelly	4	X	X	B^2	2	X	X	A^1	0	X	X	0	X	X	0	1
Jon	2	X	X	A^1	6	5	1	C	0	X	X	0	1	0	3	0
Chris G.	2	X	X	A^1	9	5	0	C	0	X	X	0	0	X	1	0
Jeff H.	5	0	1	C	9	3	2	C	0	X	0	0	0	0	0	0
Julie	7	1	2	C	10	4	0	C	1	0	0	3	3	X	2	0
Vern	9	0	3	C	10	2	2	C	2	X	0	2	0	0	1	1
Jim	7	0	1	C	10	0	2	C	3	X	1	1	X	0	1	0
Pat K.	12	0	0	C	10	4	0	C	2	X	X	0	1	X	0	0
Chris K.	2	X	X	A^1	7	5	0	C	0	X	X	0	0	X	0	0
Sue	8	1	2	C_2	9	5	3	C	2	0	0	2	2	2	1	0
Jeannine	4	X	X	B^2	7	2	2	C	0	X	X	0	0	0	1	0
Meghan	2	X	X	A^1	3	X	X	B^1	0	X	X	0	X	X	3	1
Jeff M.	11	0	0	C	11	2	1	C	1	X	X	0	0	0	1	2
Eileen	5	3	0	C	9	2	1	C	0	0	X	0	0	0	1	0

TABLE 13--<u>Continued</u>

Student	Unit Three A	B	C	D	Unit Four A	B	C	D	Unit Three E	F	G	Unit Four E	F	G	New Words H	I
Linda	6	0	3	C	10	2	2	C	2	X	1	0	0	1	0	2
David	4	2	1	C	7	1	0	C	0	0	0	2	0	X	4	2
Steve P.	1	X	X	A^2	3	X	X	A^1	0	X	X	0	X	X	0	0
John	11	0	1	C	12	0	0	C	7	X	0	5	X	X	4	2
Lester	5	1	1	C	5	4	4	C	1	1	0	0	0	0	1	0
Bill	7	0	0	C	5	0	2	C	4	X	X	1	X	1	4	2
Dale	5	X	X	B^2	9	5	0	C	0	X	X	0	0	X	2	0
Andy	1	X	X	A^1	9	2	2	C	0	X	X	0	0	0	0	1
Debbie	2	X	X	B^2	2	0	0	A^1	0	X	X	0	X	X	2	0
Steve Z.	3	1	1	C	13	2	1	C	0	0	0	0	0	0	0	0

[A] Number of words missed on the test-out which were included on the post-test.

[B] Number of words missed on the vocabulary sheets which were included on the post-test.

[C] Number of words missed on both the test-out and the vocabulary sheets which were included on the post-test.

[D] Assigned activity.

[E] Number of previously missed test-out words missed on the post-test.

[F] Number of previously missed vocabulary sheet words missed on the post-test.

TABLE 13--<u>Continued</u>

[G]Number of words previously missed on both the test-out and vocabulary sheets and then on the post-test.

[H]Number of test-out words not previously missed on the test-outs but missed on the post-test.

[I]Number of vocabulary sheet words not previously missed in doing the vocabulary sheets but missed on the post-test.

[X]Does not apply.

APPENDIXES

APPENDIX A

PILOT TEST

Name _____

Score_____

A. a book, article,etc. that is
   typed or handwritten
B. support or interest
C. persons sent out by a church
   to spread its religion in a
   foreign country
D. foolish; stupid
E. polite and kind
F. always acting or thinking in
   the same way
G. a sickness or disease
H. fully developed or grown
I. in Oriental countries a
   market or street with
   many shops
J. a large, low ship of long
   ago, having both sails and
   many oars
K. the son of one's brother or
   sister
L. egg-shaped
M. strange; unusual, but not
   worthwhile

_____ 1. witless--1
_____ 2. bazaar--3
_____ 3. courteously--2
_____ 4. behalf--7
_____ 5. malady--19
_____ 6. galleys--6
_____ 7. nephew--0
_____ 8. manuscript--0
_____ 9. new-fangled--12
_____10. missionaries--0

Note: The original pilot test was handwritten. The
numbers after each word indicates the frequency of errors
made on that word.

APPENDIX B

UNIT THREE TEST-OUT

Part One: Test-Out
Unit Three
Into New Worlds

Definitions   Words

A. a Spanish gentleman   ___ 1. adequate
B. a person who does something   ___ 2. amateur
   for enjoyment rather than   ___ 3. aqualung
   for money   ___ 4. avalanche
C. enough or good enough for   ___ 5. ballast
   what is needed   ___ 6. billow
D. a large ocean wave   ___ 7. caballero
E. a closed compartment designed   ___ 8. capsule
   to hold and protect men and   ___ 9. clash
   instruments in space or   ___10. classify
   underwater travel
F. to keep thinking in a worried
   or troubled way
G. to arrange by putting into
   classes or groups according
   to some system
H. heavy material, such as metal
   or sand, carried in a ship or
   balloon to keep it steady
I. at or toward the back part of
   a ship
J. an underwater breathing device
K. anything that comes down on
   one suddenly and in large
   numbers or amounts,especially
   a slide of material down a
   mountain
L. a loud, harsh noise
M. a sudden, very heavy rain

Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX B--<u>Continued</u>

Part Two: Test-Out
Unit Three
<u>Into New Worlds</u>

Definitions   Words

A. to set apart from others   ___ 1. cooper
B. to tangle up, as if in a   ___ 2. coral
   net   ___ 3. delicacy
C. hard or impossible to   ___ 4. despite
   believe   ___ 5. discharge
D. covered with a layer of   ___ 6. encrusted
   something   ___ 7. enmesh
E. easy to see or understand   ___ 8. gust
F. a strong and sudden rush   ___ 9. incredible
   of air   ___ 10. isolate
G. a person who makes or repairs
   barrels and casks
H. to use up
I. a stony substance made up of
   the skeletons of many tiny
   sea animals
J. to dismiss from a job
K. regardless of
L. to work out
M. choice food

_____

   Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX B--<u>Continued</u>

Part Three: Test-Out
Unit Three
<u>Into New Worlds</u>

Definitions   Words

A. a wind that blows without   ___ 1. muffle
   stopping from the northeast   ___ 2. necessity
   or southeast toward the   ___ 3. parcel
   equator   ___ 4. plastic
B. slow or slow-moving   ___ 5. porpoise
C. to go or move backward   ___ 6. recede
D. a seasonal wind of the Indian   ___ 7. secrecy
   Ocean and southern Asia   ___ 8. sluggish
E. that which is needed or cannot   ___ 9. trade wind
   be done without   ___10. viperfish
F. a water animal that is like a
   whale
G. to annoy or make angry
H. the condition of being secret
I. to wrap or cover closely so as
   to keep warm, hide, protect
J. a substance, made from various
   chemicals, that can be molded
   and hardened into many useful
   products
K. a fresh-water fish used for food
L. a small wrapped package
M. a snake-like fish

_____

   Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX C

UNIT FOUR TEST-OUT

Part One: Test-Out
Unit Four
Into New Worlds

Definitions   Words
A. a low tower atop a submarine,   ___ 1. alternate
   used as a place for observation   ___ 2. armistice
B. coming by turns; first one and   ___ 3. artillery
   then the other   ___ 4. assume
C. having to do with the managing   ___ 5. commit
   of money in a home, business,   ___ 6. conning tower
   or government   ___ 7. conspiracy
D. to throw away or get rid of   ___ 8. denounce
   something that is no longer   ___ 9. economic
   wanted   ___10. exception
E. to suppose something to be a
   fact
F. to speak out against in a
   strong way
G. an excepting, or leaving out
H. to escape or get away from by
   being quick or clever
I. an agreement to stop fighting
J. to do or perform something bad
   or wrong
K. polite and kind
L. large guns, too heavy to carry
M. a secret plan by two or more
   people to do something bad or
   unlawful

Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX C--<u>Continued</u>

Part Two: Test-Out
Unit Four
<u>Into New Worlds</u>

Definitions   Words

A. a spread like butter, made of   ___ 1. fundamental
   vegetable oils and skim milk   ___ 2. grudge
B. good quality; worth   ___ 3. knapsack
C. forming a basis or foundation   ___ 4. margarine
D. too great an interest in, or   ___ 5. maroon
   enthusiasm for, something   ___ 6. monomania
E. a broad stretch of high, level   ___ 7. offensive
   land   ___ 8. parallel
F. a meeting to talk over or   ___ 9. plateau
   settle something   ___10. primitive
G. attacking or used for attacking
H. a bag worn on the back, as by
   hikers, for carrying supplies
I. to mix up or put in disorder
J. like that of earliest times;
   crude; simple
K. moving out in the same direction
   and always the same distance apart
   so as never to meet
L. to put someone ashore in a lonely
   place and leave him
M. to envy someone because of
   something he has

_____

   Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX C--<u>Continued</u>

Part Three: Test-Out
Unit Four
<u>Into New Worlds</u>

Definitions   Words

A. a serious skin disease of the   ___ 1. purge
   tropics, caused by a germ   ___ 2. racial
B. of or having to do with any of   ___ 3. reduce
   the major groups into which   ___ 4. remedy
   mankind is divided   ___ 5. salvation
C. a saving or being saved or   ___ 6. sentiment
   being saved from danger or evil   ___ 7. shaddock
D. grand and dignified   ___ 8. stately
E. loose, not tight; relaxed   ___ 9. vital
F. to make clean or pure by   ___10. yaws
   getting rid of things that
   are dirty or wrong
G. an introduction to a book
H. very important
I. to make smaller, less, or few
J. an undertaking; an amount of work
K. a large pear-shaped fruit
L. a medicine or treatment that cures,
   heals, or relieves
M. a feeling about something

    Note: The original test-out was double spaced
throughout and typed on a primer typewriter.

APPENDIX D

ACTIVITY A[1]

Category: Animals

Swan	Goat
Horse	Rat
Ape	Unau
Dog	Duck
Donkey	Goose
Owl	Eel
Cow	
Kangaroo	

APPENDIX E

ACTIVITY A[2]

An illustration of a viperfish

APPENDIX F

ACTIVITY B[1]

Word Search

```
GRACIAL
DEFAJEM
SDKCINL
TUBHORQ
ACOMMIT
REMEDYP
```

Definitions:
1. to make smaller, less, or few _____
   (reduce)
2. of or having to do with any of the major groups into which mankind is divided
   _____
   (racial)
3. a medicine or treatment that cures, heals, or relieves _____
   (remedy)
4. to do or perform something bad or wrong
   _____
   (commit)

APPENDIX G

ACTIVITY E^2

Word Camouflage

1. ABCILELFOW: a large ocean wave _____
(billow)

2. CDELABSEH: a loud, harsh noise _____
(clash)

3. GHIUSRTE: a strong and sudden rush of air _____
(gust)

4. OPRSECUEDFE: to go or move backward
_____
(recede)

APPENDIX H

ACTIVITY C

Modified Vocabulary Sheet

1. magazines
   (mag′ ə-zēnz′)

2. armistice
   (är′mə-stis)

3. slogan
   (slō′gən)

4. hostilities
   (hos-til′ ə-tez)

5. blockade
   (blo-kād′)

1. When both sides agreed to halt the fighting, an XXXXXXXXX was signed.

2. To prevent supplies from getting through, a XXXXXXXXX of the port was set up.

3. Mark suggested a phrase that would capture everyone's attention, and the committee decided to use it as a XXXXXXXXX.

4. Although the Korean war was officially ended on July 27, 1953, with the signing of the XXXXXXXXX, the actual fighting did not stop until twelve hours later.

5. In a warship, explosives are stored in the XXXXXXXXX.

6. The two countries were at war; we hoped there would soon be an end to the XXXXXXXXX.

7. Nothing could get in or out of the city once the XXXXXXXXX was set up.

8. "If you can't stand the heat, get out of the kitchen!" was a XXXXXXXXX made popular by former President Truman.

APPENDIX I

UNITS THREE AND FOUR POST-TEST

Part One: Post-Test
Units Three and Four
Into New Worlds

Definitions   Words

A. a person who does something for   ___ 1. adequate
   enjoyment rather than for money   ___ 2. amateur
B. a large ocean wave   ___ 3. armistice
C. a clear transparent quartz that   ___ 4. auxiliary
   looks like glass   ___ 5. avalanche
D. enough or good enough for what   ___ 6. ballast
   is needed   ___ 7. billow
E. to stun or bewilder, as by a   ___ 8. caballero
   shock or blow   ___ 9. commit
F. that helps or aids   ___10. conspiracy
G. a Spanish gentleman   ___11. crystal
H. an agreement to stop fighting
I. a song or poem that tells a
   story in short verse
J. heavy material, such as metal or
   sand, carried in a ship or balloon
   to keep it steady
K. a secret plan by two or more people
   to do something bad or unlawful
L. anything that comes down on one
   suddenly and in large numbers or
   amounts
M. to do or perform something bad or
   wrong

_____

     Note: The original post-test was double spaced
throughout and typed on a primer typewriter.

APPENDIX I--Continued

Part Two: Post-Test
Units Three and Four
Into New Worlds

Definitions	Words

A. forming a basis or foundation

B. to speak out against in a
   strong way

C. of or having to do with any of
   the major groups into which
   mankind is divided

D. too great an interest in, or
   enthusiasm for, something

E. to envy someone because of
   something he has

F. to mark clearly the outline or
   limits

G. to make clean or pure by getting
   rid of things that are dirty or
   wrong

H. to tangle up as if in a net

I. covered with a layer of something

J. to set apart from others

K. attacking or used for attacking

L. a small wrapped package

M. to become less harsh or stubborn

___ 1. denounce
___ 2. encrusted
___ 3. enmesh
___ 4. fundamental
___ 5. grudge
___ 6. isolate
___ 7. monomania
___ 8. offensive
___ 9. parcel
___10. purge
___11. racial

Note: The original post-test was double spaced
throughout and typed on a primer typewriter.

APPENDIX I--<u>Continued</u>

Part Three: Post-Test
Units Three and Four
<u>Into New Worlds</u>

Definitions   Words

A. a serious skin disease of the   ___ 1. recede
   tropics caused by a germ   ___ 2. remedy
B. a large pear-shaped fruit   ___ 3. resolution
C. to examine or investigate   ___ 4. salvation
   carefully   ___ 5. sentiment
D. to go or move backward   ___ 6. shaddock
E. a wind that blows without   ___ 7. sluggish
   stopping from the northeast   ___ 8. stately
   or southeast toward the equator   ___ 9. trade wind
F. a saving or being saved from   ___ 10. viperfish
   danger or evil   ___ 11. vital
G. a seasonal wind of the Indian   ___ 12. yaws
   Ocean and southern Asia
H. a formal statement by a group
   giving its opinion, decision, etc.
I. very important
J. grand and dignified
K. a medicine or treatment that cures,
   heals or relieves
L. a snake-like fish
M. a feeling about something
N. slow or slow-moving

     Note: The original post-test was double spaced
throughout and typed on a primer typewriter.

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