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# Studies based on the Earley and Wolffer social studies vocabulary tests for grades IV, V, and VI

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BOSTON UNIVERSITY

SCHOOL OF EDUCATION

Thesis

STUDIES BASED ON THE EARLEY AND WOLFFER SOCIAL STUDIES  
VOCABULARY TESTS FOR GRADES IV, V, AND VI

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CHAPTER I

INTRODUCTION.

The broad and philosophical aim of the social studies curriculum in the elementary school is the development of bases for social responsibility and leadership in the young student, destined to be an informed, thoughtful, and effective citizen of a democratic society. He must be guided into understanding the social world about him, and he must be able to express clearly his well-formulated and well-considered opinions and judgments. The curriculum must have as its core the principles of democracy, in teaching techniques as well as in content. It must help the child to understand, criticize, question, and evaluate what he reads and hears.

Statement of the Problem

The purpose of this investigation is to pursue further the study and analysis of the intermediate grades social studies vocabulary tests constructed by William A. Wolffer<sup>1</sup> and William L. Earley<sup>2</sup>. The present study is concerned with the following problems:

1. A comparison of the results of the Gates General Vocabulary Test with the Wolffer and Earley Social Studies Vocabulary Tests to determine the correlation between achievement on a general vocabulary test and a social studies vocabulary test.

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<sup>1</sup> William A. Wolffer, "The Construction and Evaluation of a Social Studies Context Vocabulary Test," (unpublished Doctor's thesis, Boston University, Boston, 1952).

<sup>2</sup> William L. Earley, Jr., "The Construction and Evaluation of a Social Studies Vocabulary Association Test for Intermediate Grades," (unpublished Doctor's thesis, Boston University, Boston, 1952).

2. A study of the misconceptions of the words of the two final forms of the Wolffer and Earley tests, in an attempt to analyze the reasons for misconceptions.
3. An analysis of the results of the experimental and final forms of the Wolffer and Earley tests to discover whether there are any significant differences of achievement between the boys and girls at each grade level.
4. A comparison of the two final forms of the Wolffer test to determine whether they are balanced forms.
5. A comparison of the two final forms of the Earley test to determine whether they are balanced forms.
6. A comparison and evaluation of two types of testing techniques--the context type used by Wolffer and the category type used by Earley.
7. A correlation of intelligence with achievement on the final forms of the Earley and Wolffer tests.

Importance of the Study

For growth in the understanding of history, geography, and civics in the elementary grades, children must be taught the tools which will help them understand what they read in print, and what they hear in and out of the classrooms. These goals, however, cannot be attained without a basic understanding of words, their meanings, their significances, their uses, and their limitations.

The planning of the social studies curriculum must consider the achievement of immediate objectives before it can hope to attain the desired ends. The mere memorization of isolated facts is mental gymnastics without purpose, energy expended without relevance to the individual as a whole and with no clear vision of the objectives of the philosophy of education in the social studies. Understanding, analysis and synthesis, generalization and particularization, can never be realized if memorization is the main teaching technique. This does not intend to minimize the faculty of memory, nor eradicate the value of "knowing the facts". Knowledge of facts is requisite to consideration and evaluation of facts. But memorization does not imply the understanding of facts.

The isolated, memorized, unconsidered fact has little if any meaning to the whole individual because it is unrelated to any larger concept within the experiential or ideational part of the individual. This assertion gives the direction to which the curriculum of elementary school social studies must be reoriented. It must help the student develop the tools he needs if he is to understand the printed or spoken words that are the peculiar language of social studies, and if he is to grow in his knowledge of geography, history and civics.

An effective social studies vocabulary list, therefore, if it meets the criterion of being essential for the understanding of general social studies concepts would be a most significant and beneficial contribution to the teaching of social studies. The understanding of social studies concepts, of the meanings of the words it uses to communicate ideas is an important immediate goal in the teaching of social studies.

For many years the need for a basic social studies vocabulary has been recognized. Wolffer and Earley examined systematically social studies textbooks that were published, or revised since 1945 and that were in current use in intermediate grade classrooms. Words were listed in frequency counts and were considered applicable for testing if they met the criteria of being essential for the understanding of general social study concepts, and if they appeared in at least three textbooks in any one grade level.<sup>1/</sup> They eliminated words on the basis of the International Kindergarten Union Word List and the Gates Primary Vocabulary List which indicated those words expected to be understood by most pupils by the end of the third grade. Each word was considered as to its importance in the understanding of social studies concepts

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<sup>1/</sup> Wolffer, op. cit., p. 40.

and critically evaluated as to its conciseness. The words chosen for testing were put into two varieties of test format. Wolffer ordered his test words within the context-type of vocabulary test; Earley, the category-type. The words in the experimental forms, randomly distributed, were tested in nine communities, and the results were item-analyzed to determine internal validity, step-up percentages between grade levels and reliability. The two final forms of the Wolffer and Earley tests were drafted from these results and were included in their doctoral theses.

The procedures employed by the present investigators are outlined in Chapter III. The analysis and interpretation of data in these further investigations of the Wolffer and Earley social studies vocabulary tests are reported in Chapter IV, V, VI, and VII.

CHAPTER II

REVIEW OF RESEARCH AND LITERATURE

It is generally agreed that a familiarity with the technical vocabulary of social studies is necessary to comprehend social study material if the objectives of social studies are to be reached. Defining and memorizing alone are inadequate, since word meanings change according to context. Thus the problem of vocabulary is one of real significance.

Wesley<sup>1/</sup> believes that, next to the lack of experience, vocabulary offers the greatest block to progress in the social studies field. Verbalism, to cite but one example, is one of the indications that subject matter is not really understood. It is one of the serious problems which stem from inadequate word comprehension, reflecting inadequate teaching and inadequate learning. It is unlikely that verbalism will receive widespread remedy until more is known about vocabulary level and the nature of difficulties present.

Information about research which is of practical use to the student or teacher of social studies is lacking. The reading field has given vocabulary far more consideration than has the social studies field, and Thorndike's<sup>2/</sup> original list of the 10,000 words which appear most frequently in adult literature has greatly influenced the vocabulary makeup of many tests and textbooks.

<sup>1/</sup> Edgar B. Wesley, "Diagnosis in Social Studies," Educational Diagnosis, Thirty-Fourth Yearbook of the National Society for the Study of Education, (Bloomington, Illinois: Public School Publishing Company, 1935), p. 305.

<sup>2/</sup> Edward L. Thorndike, The Teacher's Wordbook, (New York: Teachers College, Columbia University, 1921.)

Earley<sup>1/</sup> states that, "As nearly as can be ascertained, no organized comprehensive program for social studies vocabulary improvement exists."

Scott and Meyers<sup>2/</sup> investigated the understanding of common terms used in history books among fifth, sixth, seventh, and eighth grade students, and their study bears out the fact that children use many words daily which have little meaning to them. Furthermore, even in instances where children chose the right answer, they often had obscure ideas about terms used frequently in their every day procedures as indicated by definitions which they gave for the words. It seems significant that as grade level increased so did correctness of concepts.

A vocabulary study by Kepner<sup>3/</sup> had teachers record daily for several months all words which junior high school students found difficult. This study revealed that: (1) instruction in social studies content at the high school level was seriously handicapped whenever a vocabulary beyond the comprehension of ninth grade pupils with normal vocabulary was used; and (2) almost half of the vocabulary difficulties consisted of language essential to the social studies.

Johnson<sup>4/</sup> studied the vocabulary of content subjects of fifth graders. He selected 150 words at random from a list of fifteen hundred which he compiled from: (1) index, glossary, pronouncing word lists of fifth grade textbooks; (2) words in italics; and (3) technical terms of content subjects. His observations, covering a period of years, had shown these words to be difficult for children.

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1/ Earley, op. cit., p. 7.

2/ Flora Scott and Garry O. Meyers, "Children's Empty and Erroneous Concepts of the Commonplace," Journal of Education, 8: 327-334, February, 1928.

3/ Tyler Kepner, "Vocabulary Versus Content in Junior High School Studies," The Historical Outlook, 20: 20-33, January, 1929.

4/ Mary E. Johnson, "A Study of the Understanding of Vocabulary of Content Subjects by Children of Grade Five," (unpublished Master's Thesis, Boston University, Boston, 1950.)

Results showed that there was no field in which vocabulary knowledge of pupils was adequate; the fields of arithmetic and health were best known. History, geography, literature, and science proved to be the most difficult areas.

Gates<sup>1/</sup> centered his vocabulary study around the development of a reading vocabulary for primary grade children. Gates selected 1500 words which he considered suitable for all types of reading in grades one, two, and three, using as a basis for his selection not only the 2500 words of highest frequency as found in Thorndike's study, but additional words found in children's literature and in their spoken vocabulary.

The augmented list reached about 4300 words and was appraised in terms of utility, interest, and difficulty. In judging difficulty, words used in speech were considered easier to learn than those less commonly used. Length and configuration were also taken into account.

Each word was submitted to the composite judgment of experts, arranged alphabetically, and numerically rated from one to fifteen hundred, the number one designating the highest rank and thus indicating that this word deserved to be taught first.

Gates feels that his list could be widely used in other subject matter fields and thus facilitate reading and comprehension, leaving only the novel aspects of the content of the particular field as a problem.

The Child Study Commission<sup>2/</sup> attempted to determine the vocabulary of children before they entered the first grade. Data included words used in kindergarten, words used in the homes, and words stimulated by special

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<sup>1/</sup> Arthur I. Gates, A Reading Vocabulary for the Primary Grades, (New York: Teachers College, Columbia University, 1926).

<sup>2/</sup> Child's Study Commission of the International Kindergarten Union, A Study of the Vocabulary of Children Before Entering First Grade, (Washington, D. C.: The International Kindergarten Union, 1928).

pictures and questions. Slang terms, contractions, commercial words, and colloquialisms such as "mhm" were also considered representative. Although some seven thousand words were found, the final list consisted of 2,596 words which appeared seven or more times either in the 1925 edition of Webster's International Dictionary or the list of words considered representative. The list is useful to those who wish to know what to expect in the way of vocabulary of children beginning school. However, the list has the drawback of having been published in 1928.

Three years after this date, Thorndike<sup>1/</sup> revised and expanded his original list using as his source of vocabulary, textbooks, readers, the Bible, and English classics. In 1936, this revised list was combined with ten other studies and reported by Buckingham and Dolch.<sup>2/</sup>

Thorndike and Lorge<sup>3/</sup> made an extensive count of words taken from children's literature, elementary school textbooks, the Bible, English classics, books about sewing, cooking, farming, the trades, and from daily newspapers, magazines, correspondence, and semantic counts. These words were arranged in five columns to facilitate use. This list is used by teachers to determine whether to use a word in writing, speaking, or teaching, and to determine how common a word is in standard English reading matter. It also helps teachers decide whether a word found in children's reading materials should be taught fully or whether cursory knowledge is sufficient as is frequently the case when the teacher has as his reading purpose temporary enjoyment.

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<sup>1/</sup> E. L. Thorndike, The Teacher's Word Book of 20,000 Words, (New York: Teacher's College, Columbia University, 1931.)

<sup>2/</sup> B. R. Buckingham and E. W. Dolch, A Combined Word List, (Boston: Ginn and Company, 1936).

<sup>3/</sup> E. L. Thorndike and Irving Lorge, The Teacher's Word Book of 30,000 Words, (New York: Teacher's College, Columbia University, 1944).

A basic vocabulary for elementary school children in grades one to eight was developed by Rinsland<sup>1/</sup> who used words from the freest and most natural writings of the children. Included were writings of personal notes, stories, poems, compositions in school subjects, examinations in non-technical subjects, uncorrected articles for school newspapers, and reports of observations and school field trips.

The study was conducted in all parts of the United States, and care was taken to include communities from industrial areas, mining regions, lumbering districts, and rural, and urban areas.

The authenticity and naturalness of all written material was determined by experienced teachers. In cases where two teachers were in doubt about a paper, the paper was submitted to a third teacher who had no knowledge of the first two readings.

Words from children in the first grade could not be obtained extensively from written material due to the nature of the work at this level, and it was necessary to supplement written work by recorded conversations of these children both in and out of school.

The list is arranged in alphabetical order using the 14,571 words occurring three or more times at any one grade level. Raw frequencies for each grade and total frequency for all grades are indicated. In addition, an index symbol places each word in groups by one hundred, five hundred, and one thousand into which the word falls.

The Rinsland list is a basic or general vocabulary list, and teachers can use it to check frequency and relative importance of words as they appear in their own classroom materials.

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<sup>1/</sup> Henry D. Rinsland, A Basic Vocabulary of Elementary School Children, (New York: The Macmillan Company, 1945).

The one major published report of experimentation and research concerned with social studies vocabulary and tests is the work of the American Historical Association.<sup>1/</sup> Luella Cole Pressey analyzed twenty-three textbooks in history and civics used in grades four through college, taking no note of frequency; six high school history textbooks, keeping a frequency count; and noted special words appearing on the front pages of newspapers, in editorials, and in many articles appearing in magazines dealing with current events.

Words of high frequency were judged by sixty-four secondary school teachers of history and five college professors. Those words which the judges felt they could not teach without and those which especially trained individuals considered of high value outside the classroom were listed. Three hundred and forty-six words met the criteria of all three, survived additional editing, and were put into test forms.

An objective test was made up because of its high reliability and ease of administration. Each word was presented in a contextual setting not too different from the types found in textbooks. Four forms were administered to a total of 11,000 school children in grades four, six, eight, ten, and twelve in thirty-one different places. Results showed that greatest improvement came between grades four and eight with grades six to eight showing a greater increase than any other two grades.

Test words mastered by ninety per cent or more of the students sampled numbered none at fourth grade level, only five in grade six, fifty-five in grade eight, one hundred and six in grade ten, and one hundred seventy-two in grade twelve.

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<sup>1/</sup> Truman L. Kelly and A. G. Krey, Tests and Measurements in the Social Sciences, Part IV, Report of the Commission of the American Historical Association on the Social Studies (Boston: Charles Scribner's Sons, 1934).

Kelty and Moore,<sup>1/</sup> using words from a list issued by the Commission on Social Studies of the American Historical Association, constructed a test of social studies vocabulary. The list was then divided into groups of terms which the tester felt could be satisfactorily taught to children in grades four, five, six, and junior high school. Historical terms at the intermediate grade levels were assigned to appropriate grades and complex political and economic concepts were given to the junior high school students.

The above divisions were each subdivided into seven categories. Eight words were selected from each category and the list of fifty-six items was put into two nearly equivalent forms. Each word was given its correct meaning, a nearly correct meaning, or one which, in the opinion of the testers, was representative of errors that children would be likely to make. One group of children at each grade level was given the list of words and asked to write what they thought the term meant. Five distractors were taken from wrong responses and used on the test. Test items were further criticized by three authorities on the teaching of social studies.

The tests were administered to a random sample of one hundred pupils at each grade level. Seventy items based on an analysis were chosen from these test forms and put into two balanced forms, each with a reliability of approximately .77 per form. Reliability was reported to have increased considerably when all seventy items were placed on one form.

The authors do not consider their test the real answer to the problem of testing children's concepts but consider it rather a guide and measuring stick.

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<sup>1/</sup> Mary G. Kelty and Nellie E. Moore, "The Kelty-Moore Tests of Concepts in the Social Studies," (T. L. Kelley and A. O. Krey, Tests & Measurements in the Social Sciences, Part IV, Report of the Commission of the American Historical Association on the Social Studies, Boston: Charles Scribner's Sons, 1934), pp. 227-233.

Wesley<sup>1/</sup> constructed tests in political terms and social terms based on the social studies vocabulary list compiled by the American Historical Association. The political terms were confined to political history and government while the social terms included all the social studies.

Wesley experimented extensively in the selection of type of test items in his political terms test and concluded that the best-answer type with five options called for the highest degree of discrimination.

Although these tests are not suitable for elementary school use, they offer a possible solution to the problem of form and technique in the testing of vocabulary comprehension.

Price<sup>2/</sup> considers, as one of the objectives of a testing program in social studies, the diagnosis of special abilities and weaknesses of individual students so that teachers can determine the success of their own teaching and also have a basis for re-teaching and review.

Varney<sup>3/</sup> evaluated various methods of testing knowledge of word meaning. He employed the following techniques: (1) matching words with a dictionary definition, (2) matching words with synonyms, (3) multiple-choice, selecting a word from several which fit into all of a series of sentences, (4) multiple-choice, completing a sentence by choosing the proper word, and (5) multiple-choice, underlining the sentence showing the correct use of a word.

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<sup>1/</sup> Edgar B. Wesley, "The Wesley Tests in Social Terms," (T. L. Kelley and A. O. Krey, Tests & Measurements in the Social Sciences, Part IV, Report of the Commission of the American Historical Association on the Social Studies, Boston: Charles Scribner's Sons, 1932), pp. 219-226.

<sup>2/</sup> Roy A. Price, "Tests in Social Studies," Social Studies, 26: 23-39, January, 1935.

<sup>3/</sup> Elinor O. Varney, "An Experiment to Evaluate Some Techniques for Measuring the Knowledge of Word Meanings in the Fourth, Fifth, and Sixth Grades," (unpublished Master's Thesis, Boston University, Boston, 1945).

The results of her testing revealed that the matching technique had the clearest item validity with multiple choice second.

Wilking<sup>1/</sup> used the category method to construct and evaluate a measure of reading vocabulary. Words were selected on the basis of Roget's classification. Two final forms of ninety words each were given to children in grades seven, nine, eleven, and thirteen. He concluded that the category type of testing was valid for measuring reading vocabulary, and that more words could be tested by it than by any other method in a given period of time.

Burgard<sup>2/</sup> investigated the abilities of fifth and sixth grade children to derive word meanings from context while reading silently. He found that, for the most part, children were ineffective in their attempts to find meaning from context. In addition, as the level of reading achievement decreased, there was a decrease in ability to detect unknown words.

Butler<sup>3/</sup> made a study to determine the techniques by which meaning is written into textbooks in all the subject areas of the elementary school. By using control and experimental groups, she concluded that: (1) the experimental group, in spite of lower mental ages and reading scores, seemed to find word meaning from context better than the control group, and (2) specific instruction using various techniques may improve skill in finding word meaning from context.

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<sup>1/</sup> Stephen V. Wilking "Construction and Evaluation of a Measure of Reading Vocabulary," (unpublished Master's thesis, Boston University, Boston, 1940).

<sup>2/</sup> John F. Burgard, "An Investigation of the Abilities of Fifth and Sixth Grade Pupils to Derive Word Meanings from Context in Silent Reading," (unpublished Master's thesis, Boston University, Boston, 1950).

<sup>3/</sup> Huldah A. Butler, "Finding Word Meaning from Context in Grade Five and Six," (unpublished Master's thesis, Boston University, Boston, 1943).

The conclusions of Tilly<sup>1/</sup>, who investigated the possibilities of a self-appraisal test as an instrument for determining the relative difficulty of word meanings known by children when these words appeared in isolation as well as in context, revealed that self-appraisal is a valid enough technique to indicate word concept difficulty for children in elementary schools.

Kelly and Krey<sup>2/</sup> favor the multiple-choice type of test because it permitted the use of phrases or sentences and provided an opportunity to test relationship as well as recall. By using four or five options, the chance factor is cut down to negligible proportions.

Lindquist<sup>3/</sup> feels that the multiple-choice form is free from many of the weaknesses inherent in other forms. It adapts itself to a wide variety of item types. Furthermore, he believes that although the multiple-choice type is often abused, it can, with proper handling, measure complex abilities and fundamental understandings effectively.

Eskridge<sup>4/</sup> studied the textbooks used in grades four, five, six, and seven in Greenwood, South Carolina. His final selection of words was based on frequency of occurrences, on closeness of words to map use, and on his own personal experiences, and consisted of one hundred thirty-five words for testing purposes. The following five types of tests were used; (1) essay, (2) multiple-choice, (3) identification of places on maps, (4) the National Intelligence Test, and (5) a concrete materials test, in which the children were asked, for example,

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<sup>1/</sup> Harvey O. Tilley, "A Technique for Determining the Relative Difficulty of Word Meanings Among Elementary School Children", Journal of Experimental Education, 5: 61-64, September, 1936.

<sup>2/</sup> Kelley and Krey, op. cit., pp. 20-21.

<sup>3/</sup> E. F. Lindquist, Educational Measurement, (Menasha, Wisconsin: George Banta Publishing Company, 1951), p. 195.

<sup>4/</sup> T. J. Eskridge, Jr., Growth in Understanding of Geography Terms in Grades IV to VI, (Durham, North Carolina: Duke University Press, 1939).

to show the tester an "isthmus" after having looked at globes, maps, and models. Eskridge concludes that, "Effective reading more than any other academic factor conditions the child's ability to do his school work more effectively."<sup>1/</sup>

Sims<sup>2/</sup> investigated the reliability and validity of the four following types of vocabulary tests: (1) identification (defining word meanings), (2) multiple response, (3) matching, and (4) checking known words. He reported that reliability ranged from 84 per cent to 93 per cent. The multiple response technique was found to be the least reliable and the matching the most reliable.

Earley<sup>3/</sup>, in his social studies vocabulary study, discovered that most social studies words lend themselves to grouping by categories. His categories were so selected that vocabulary words were limited to a single, general concept. The words and short phrases that were chosen referred to people, places, events, institutions, and products related to human, social, economic, and political activities.

These words were selected from eighteen intermediate grade texts. They were classified according to the following criteria:

1. Words in the International Kindergarten list
2. Words in the Gate's Primary Word List
3. Words essential for understanding of social studies concepts of special topics
4. Words peculiar to or essential for understanding of general social studies concepts

Five forms, each composed of four sections, with five categories, tested 690 categorized words plus thirty selected non-categorized words. Each categorized word was related closely to one of the total thirty-two categories used. Each

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<sup>1/</sup> Eskridge, Jr., op. cit., p. 65.

<sup>2/</sup> Verner M. Sims, "Reliability and Validity of 4 Types of Vocabulary Tests," Journal of Educational Research, 20: 91-96, September, 1929.

<sup>3/</sup> Earley, op. cit.

item response was indicated by marking the proper category or indicating that the proper category was not given.

There are clear indications that even though each successive grade level mastered a greater per cent of the words tested, than the grade that preceded it the understanding of the social studies vocabulary was not adequate enough to insure the mastery of social studies concepts and content. The category-association method was found to be the fastest method of measuring social studies vocabulary at the intermediate grade level. Earley reported further that this technique was highly valid and reliable.

Wolffer's<sup>1/</sup> evaluation of his context vocabulary test showed that this technique is useful for diagnosing and testing social studies vocabulary in one sitting during a testing period.

Wolffer also chose words from eighteen texts and these were applied to the same criteria as Earley. The final word list consisted of 414 items which were divided into five tests, forms A, B, C, D, and E. The same forms were given to all three intermediate grades.

Sentences were constructed for each word. The sentence form was used by Wolffer because it allowed words to appear in situations similar to those found in textbooks. Sentences were made up of wordings found in fourth grade social studies textbooks since this was the lowest grade tested. Analysis of test results showed that the context method of testing vocabulary has a high rate of reliability and validity. Of the 414 different word meanings tested in Wolffer's study by 75 per cent of the population only twenty words were mastered in grade 4, seventy-seven in grade 5, and one hundred and thirty-two in grade 6, indicating a deficiency in the understanding of social studies concepts. Because the evidence

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<sup>1/</sup> Wolffer, op. cit.

relating to social studies vocabulary testing technique is so contradictory, it is impossible to state with any degree of accuracy which technique is most valid. Nevertheless, statistical analysis of test results shows that diagnostic tests can be helpful in measuring, for instructional purposes, the status of children's vocabulary in the social studies field. If teaching is to be efficient, an adequate testing program, part of which is of a diagnostic nature, is a necessity.

It is felt that more should be known about the relative merits of the various testing techniques so that the desired testing program will be a reality. And it seems obvious that until more experimentation takes place in social studies vocabulary testing, progress in the social studies field will be under definite and serious limitations.

Adequate vocabulary evaluation only takes place when an adequate testing instrument is used. It seems probable that in addition to using a good standardized test, teachers will have to devise supplementary tests which fit the peculiarities of their own classes.

CHAPTER III

PROCEDURE

Very little research has been directed at the testing of social studies vocabulary at the elementary school level. This limited research and the literature suggest the increasing need for further investigation. Especially is this true in the light of the findings of similar experimentation and investigation at the secondary school level.

It was, thus, with the help of limited findings of previous investigations that these studies of a measure of social studies vocabulary at the intermediate grades were planned and organized.

In 1952, Earloy<sup>1/</sup> and Wolffer<sup>2/</sup>, as a preliminary step in their social studies vocabulary testing at the intermediate grades level, defined social studies vocabulary as, "... including those terms which refer to persons, places, events, institutions, and products related to human, natural, social,

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<sup>1/</sup> Earloy, op. cit.

<sup>2/</sup> Wolffer, op. cit.

economic and political activities, a knowledge and meaning of which is essential in order to read and express the information necessary for growth in the understanding of geography, history, and civics.<sup>1/</sup> This definition provided a basis for selecting the words to be used in their diagnostic measures of the social studies vocabulary of intermediate grade children. The words were selected after careful analysis of eighteen geography and history textbooks used at the fourth, fifth, and sixth grade levels.

As a result of their testing of approximately 3000 children, with each experimenter using his five experimental forms, they arrived, by means of various statistical measures, at a list of words to be included in each of their two final forms. It is these recommended words that were used as a basis for the present group project in vocabulary testing.

It was decided that the first step should be a careful analysis of the existing testing results. This was done by utilizing the actual testing papers used by the approximately 6000 children who made up the cases for experimentation in the 1952 studies. This analysis resulted in a compilation of all responses made by each of the children on all items on the

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<sup>1/</sup> Wolfner, op. cit., pp. 36-37.

total ten experimental forms. A further analysis was done by computing the percentages of boys and girls responding positively to the correct items.

The second step was to utilize the two final forms of the Earley tests<sup>1/</sup> and the two final forms of the Wolffer tests<sup>2/</sup> as a basis for further testing. The justification for the use of these words as being terms of high reliability was the estimated reliability of .97 on each of the two final forms of the Earley tests, and of .93 on Form I and .94 on Form II of the Wolffer tests.

Construction of the Tests

Although previously cited research is inconclusive as to the single best method of testing vocabulary, the category-association technique has been shown to have high reliability and validity in the few tests in which it has been employed. It also has the distinct advantage of allowing for the measurement of a greater number of word concepts in a shorter period of time than is true of any other techniques.

While the multiple-choice type test item has by no means been championed by all test makers, it is reputedly a good type of item and in this case allowed the selected

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<sup>1/</sup> Earley, op. cit.

<sup>2/</sup> Wolffer, op. cit.

vocabulary to appear in sentence form, which is its most natural setting in textbooks. It further permitted the testing of phrases as well as single words.

In constructing the two balanced forms of the Earley test it was necessary to determine categories to which the suggested list of 260 words of the balanced forms would apply. These words were grouped according to their relationship as based on a single, common social studies idea or concept. The word categories were selected from the experimental forms and included:

- |                              |                                   |
|------------------------------|-----------------------------------|
| People                       | Fruit                             |
| Sizes and Measures of Land   | Size or Area of Government Region |
| Animals                      | Church and Religion               |
| Water Travel                 | Metals                            |
| Rules and Laws in Government | Water and Water Bodies            |
| Soil and Rocks               | Kind and Shape of Land            |
| War and Warfare              | Science and Scientists            |
| Places People Live           | Farms and Farming                 |
| Weather                      | People in Government              |
| Prccions stoncs              | Land Travel                       |
| Land and Land Areas          | Products of Nature                |
| Occupations                  | Length of Time                    |
| Government                   | Trade and Trading                 |
| Manufactured Goods           | Inventions                        |
| Directions of Places         | Air Travel                        |
| Groups of People             |                                   |

Earley's final form words were merely indicated in his conclusions and were not constructed into the two balanced forms. The present investigators, in formulating each of the balanced forms, found it desirable to have five sections of five categories each into which the selected words from the Earley lists were to be placed. This resulted in a set-up of only 125 words being distributed throughout a total of twenty-five categories and left fifty vacancies in the organization of the tests. It was decided first to add one non-categorized word to each section bringing the total to 130 words and the remaining forty-five items were selected from the lists of experimental form words that showed passing indices ranging between 53.2 per cent and 54.3 per cent. This resulted in a total number of one hundred and seventy-five items per test form. Consequently, each form was composed of five groups of five categories each and thirty-five words in each section.

Each word was to be responded to in such a way that by blackening in the space between the parentheses on the answer sheet, the children indicated the category with which it was correctly related, or by crossing out the item they indicated that it was not related to any.

All that was necessary in constructing the two balanced forms of the Wolffer test was to use the total of 160 suggested words in the same situations as were used on the

experimental forms. The 160 items were divided into two tests, Form I containing 80 items, and Form II containing 80 items. Each word was to be responded to in such a way that by blackening in the space between the parentheses on the answer sheet, the children indicated their choice of the correct definition.

On all tests, directions and sample items for the children were included; on the Earley tests these were included on the test forms themselves and on the Wolffor tests these were included on one side of the individual answer sheets which were furnished to each child. Guessing was discouraged since the purpose was to ascertain the actual status of children's knowledge of the words at the three grade levels.

A separate page of directions was included for the teachers' use. No time limit was imposed, although the tests were planned in such a way that one thirty-minute sitting allowed ample time for each form for the average fourth grade reader to respond to all items. Plans were made for the tests to be administered by the teachers in order to insure as normal a classroom situation as possible.

Final copies of all forms of both tests may be found in Appendix B.

#### Administration of the Tests

These tests were administered to the total fourth, fifth,

and sixth grade populations of each of two communities, one primarily residential and the other an industrial city. As an aid to the reader, the following key will apply throughout the rest of the study:

Community I - indicating the industrial community

Community R - indicating the residential community

An analysis of the data is given in the following four chapters which deal with:

Analysis of Children's Misconceptions

Comparison of Social Studies Vocabulary with General Vocabulary

Sex Differences in Social Studies Vocabulary

Analyses of Data in Further Studies

CHAPTER IV  
COMPARISON OF SOCIAL STUDIES VOCABULARY WITH  
GENERAL VOCABULARY

The purpose of this phase of the over-all study was to investigate the relationship of the Wolffer and Earley Social Studies Vocabulary Tests to a general vocabulary test, and to determine the statistical validity of these specialized vocabulary tests in the light of their degree of correlation with a known measure of general vocabulary.

The Earley and Wolffer Social Studies Vocabulary Tests were administered to all the pupils of the fourth, fifth, and sixth grades of the public schools of Community I. The enrollment in these middle grades was 1,708. One-half of the number of classes in each grade was given each test. Selection of the test for each class was made at random. Division was attempted only as to the number of classes but the number of pupils taking each test in each grade was fairly evenly balanced.

One week later, the same pupils being used in this experimental study were given the Vocabulary Test taken from the Gates Reading Survey.<sup>1</sup> Only the vocabulary portion of this reading survey was used. The Gates test was chosen as a criterion because it is an outstanding test of known validity in its field and because both it and the Wolffer-Earley tests purport to be measures of certain phases of the same ability.

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<sup>1</sup> Arthur I. Gates, "Gates Reading Survey for Grades 3 (2nd half) to 10" (Bureau of Publications, New York; Teachers College, Columbia University, 1942 Revision.)

Because of a high incidence of absence and other uncontrollable factors, the total number of pupils for whom two scores were obtained, one on the Gates test and the other on either the Wolffer or the Earley test, was 1,368. Pupils for whom only one of these scores was available were dropped from the entire study.

TABLE I  
 NUMBER OF CLASSES AND PUPILS IN GRADES  
 4, 5, AND 6 TAKING THE EARLEY AND WOLFFER TESTS

| Grade  | Number of Classes |         | Number of Pupils |         | Total |
|--------|-------------------|---------|------------------|---------|-------|
|        | Earley            | Wolffer | Earley           | Wolffer |       |
| IV     | 9                 | 9       | 250              | 216     | 466   |
| V      | 10                | 11      | 222              | 250     | 472   |
| VI     | 9                 | 9       | 230              | 200     | 430   |
| Totals |                   |         | 702              | 666     | 1,368 |

All test were administered by the classroom teachers following a direction sheet. Answer sheets were used for the social studies tests, and emphasis was placed upon allowing sufficient time for pupils to try all the items in the tests.

All the tests were hand-scored. It was decided not to correct the Gates test for guessing, as suggested in the manual, as it was felt that a numerical score representing the number of correct responses would yield a truer coefficient of correlation in this case.

The results of these tests were analyzed statistically to determine the degree of correlation between the scores in the Wolffer and Earley vocabulary tests and the Gates vocabulary test.

Coefficients of correlation were computed on the Durost-Walker Correlation Chart which is designed to facilitate the computation of a Pearson product-moment coefficient of correlation. Six coefficients were plotted, one for each of the two tests at each of the three grade levels. The total number of cases was used in each computation.

The approximate percentages of forecasting efficiency for each correlation coefficient were computed by applying Kelley's formula for the Coefficient of Alienation and deducting the resulting values expressed as percentages from 100.<sup>1/</sup>

The means and critical ratios of the means between grades IV and V and VI were computed.

TABLE II  
CORRELATION BY GRADES OF THE EARLEY SOCIAL STUDIES VOCABULARY TEST SCORES WITH THE GATES VOCABULARY TEST SCORES

| Grade | Number of Cases | Correlation Coefficient |
|-------|-----------------|-------------------------|
| IV    | 250             | .76                     |
| V     | 222             | .70                     |
| VI    | 230             | .75                     |

The coefficients between the Earley and Gates tests at the fourth

<sup>1/</sup> H. A. Greene, A. N. Jorgensen and J. R. Gerberich, Measurement and Evaluation in the Elementary School (New York: Longmans, Green and Company, 1942), pp. 538-539.

and sixth grade level of .76 and .75 respectively indicate a high positive correlation and a marked relationship between the two tests.

The coefficient of .70 for grade five scores shows a marked relationship and a substantial correlation between these two sets of scores.

The analysis indicates a definite trend for pupils who score high on the Gates test to score high on the Earley Test especially in Grades IV and VI.

TABLE III

CORRELATION BY GRADES OF THE WOLFFER SOCIAL  
STUDIES VOCABULARY TEST SCORES WITH THE  
GATES VOCABULARY TEST SCORES

| Grade | Number of Cases | Correlation Coefficient |
|-------|-----------------|-------------------------|
| IV    | 216             | .60                     |
| V     | 250             | .72                     |
| VI    | 200             | .72                     |

The Wolffer-Gates correlation is found to be correspondingly high at the fifth and sixth grade levels where the computed coefficients were .72 and .72 respectively.

A moderate correlation with some degree of positive relationship is indicated at the fourth grade level by the coefficient of .60 between the Wolffer and Gates tests.

There is evident a marked tendency for pupils with high scores on the Gates test to receive correspondingly high scores on the Wolffer test, especially in the fifth and sixth grades.

TABLE IV  
PREDICTIVE VALUE OF THE COEFFICIENTS OF  
CORRELATION OF THE VOCABULARY TESTS

| Grade | Test          | Coefficient<br>or<br>Correlation | Per Cent of<br>Forecasting<br>Efficiency |
|-------|---------------|----------------------------------|--|
| IV    | Earley-Gates  | .75                              | 33.1                                     |
| V     | Earley-Gates  | .70                              | 28.1                                     |
| VI    | Earley-Gates  | .75                              | 33.1                                     |
| IV    | Wolffer-Gates | .60                              | 20                                       |
| V     | Wolffer-Gates | .72                              | 31                                       |
| VI    | Wolffer-Gates | .72                              | 30.5                                     |

Table IV shows that the accuracy with which one variable can be forecast from known values of the other declines from 33.1 per cent to 20 per cent as the magnitude of the correlation decreases.

TABLE V  
CRITICAL RATIOS BETWEEN GRADES  
ON THE BARLEY TEST, FORM I

| Grade | Number | Mean  | SD    | SE<br>M | Diff. | SE Diff. | Critical<br>Ratio |
|-------|--------|-------|-------|---------|-------|----------|-------------------|
| 4     | 250    | 53.25 | 27.55 | 1.74    |       |          |                   |
| 5     | 222    | 67.85 | 24.75 | 1.66    | 14.60 | 2.4      | 6.1               |
| 6     | 230    | 86.00 | 21.28 | 1.40    | 18.15 | 2.2      | 8.2               |

Table V shows that the difference between 53.25, the mean of the pupils in grade IV, and 67.85, the mean of the pupils in grade V, is 14.60. The critical ratio is 6.1, which ratio is statistically significant in favor of grade V.

The difference between 67.85, the mean of the pupils in grade V, and 86.00, the mean of the pupils in grade VI, is 18.15. The critical ratio is 8.2, which ratio is statistically significant in favor of grade VI.

Both these critical ratios reveal a valid increase in the means between grades.

TABLE VI  
CRITICAL RATIOS BETWEEN GRADES  
ON THE WOLFFER TEST, FORM I

| Grade | Number | Mean  | SD    | SE<br>M | Diff. | SE Diff. | Critical<br>Ratio |
|-------|--------|-------|-------|---------|-------|----------|-------------------|
| 4     | 216    | 27.03 | 11.01 | .75     |       |          |                   |
| 5     | 250    | 40.98 | 13.92 | .88     | 13.95 | 1.5      | 9.3               |
| 6     | 200    | 52.22 | 13.26 | .94     | 11.24 | 1.3      | 8.6               |

Table VI shows that the difference between 27.03, the mean of the pupils in grade IV, and 40.98, the mean of the pupils in grade V, is 13.95. The critical ratio is 9.3, which ratio is statistically significant in favor of grade V.

The difference between 40.98, the mean of the pupils in grade V, and 52.22, the mean of the pupils in grade VI, is 11.24. The critical ratio is 8.6, which ratio is statistically significant in favor of grade VI.

Statistical validity of the Wolffer test is evident in the step-up of the means from grade to grade.

In a general analysis it is evident that the coefficients of correlation obtained in the study of the Wolffer, Earley and Gates tests show a definite positive relationship existing between the Earley and Gates tests and the Wolffer and Gates Tests. Variations and the scores of the one test may be expected to accompany corresponding variations in the scores of the other.

General constancy of the degree of positive correlation is shown in this study, the coefficient figures clustering rather closely together between .716 and .747 except for the two lower coefficients between

Earley-Gates at grade V, and Wolffer-Gates at grade IV.

Generally validity coefficients are expected to be at a minimum of .45 and a maximum of about .80 for practical purposes.<sup>1/</sup> All the coefficients computed in the study fall into the upper brackets of this category. Therefore evidence of statistical validity based upon the above criterion may be reported as definitely present.

One of the important outcomes of correlation is the predictive implication of the coefficients, that is, the accuracy with which one measure may be predicted from another known measure.

The percentages of forecasting efficiency obtained for the specific values of the correlations of this study are small, but when compared with the probable efficiency of predictions having no correlative bases, which is less than 5 per cent, the picture seems better.

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<sup>1/</sup> J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, 1950), p. 165.

## CHAPTER V

## MISCONCEPTIONS IN SOCIAL STUDIES VOCABULARY

The purpose of this chapter is to make a study of the words of the two final forms of the Wolffer Social Studies Vocabulary Test and the words of the two final forms of the Earley Social Studies Vocabulary Tests. An analysis of the misconceptions in both these tests was made in order to determine the reasons for the childrens' responses, and to provide a basis for further study in an attempt to improve vocabulary work.

The first part of the chapter presents the study made of the responses to the 160 words on the two final forms of the Wolffer Social Studies Vocabulary Test obtained from the five experimental forms used in the original study in nine communities in grades four, five, and six. The total number of children tested was 2,974.

The second part of the chapter presents the study made of the responses to the 250 words on the two final forms of the Earley Social Studies Vocabulary Test obtained from the five experimental forms of the original study which was given in the same nine communities to grades four, five, and six. The total number of children tested was 3,039. The children who took the experimental forms of the Wolffer test were not the same children used on the experimental forms of the Earley test.

## WOLFFER SOCIAL STUDIES VOCABULARY TEST

The study of the words found in the two final forms of Wolffer's Social Studies Vocabulary Test is based on the results obtained by Wolffer on five experimental forms as given in nine communities on three grade levels. The total number of children tested was 2,974.

All data used in this study were obtained from an item analysis of all the words in all the experimental forms of the Wolffer Test. The words to

be considered here will total one hundred sixty, eighty words having been used in each of the two final forms of the test.

In this study an attempt will be made to determine the reason for many of the wrong choices made by the children in taking this test. No effort will be made to study all the words. Only the words in which the choice next highest to the correct response indicated errors in configuration, comprehension, or wrong associations of ideas were considered in this study.

The main reasons for errors in the test seem to fall into these three groups. A configuration error is one in which the child mistakes one word for another due mainly to a hurried or careless look at the word. The second reason and one peculiar to the Wolffer Test and not found in the parallel test, the Earley Test, is the lack of comprehension in reading. A third and most common reason for error is associations of ideas, in which the pupils made a wrong association of ideas between the tested word and one of the choices.

Many words were omitted by a large number of the children due principally to unfamiliarity with the word. Since the words were chosen from both history and geography books on all three grade levels it is obvious that many fourth grade children would omit the words found only in fifth or sixth grade books. The omission of words and reasons for omissions will be left for a later study.

Following is a list of the words in the two final forms and the number of responses for each choice and the number of omissions. Table VII forms the basis for the analysis of the misconceptions. The correct response to each item is underlined.

TABLE VII

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST.

| Form I                         | Grade | Number | Choices    |            |           |            |            | Omission |
|--------------------------------|-------|--------|------------|------------|-----------|------------|------------|----------|
|                                |       |        | (1)        | (2)        | (3)       | (4)        | (5)        |          |
| barbarous                      | 4     | 265    | 19         | 9          | 60        | <u>59</u>  | 9          | 22       |
|                                | 5     | 205    | 16         | 8          | 38        | <u>102</u> | 5          | 35       |
|                                | 6     | 203    | 13         | 24         | 22        | <u>119</u> | 3          | 21       |
| border                         | 4     | 265    | 115        | <u>27</u>  | 16        | 8          | 5          | 7        |
|                                | 5     | 205    | 132        | <u>41</u>  | 14        | 6          | 5          | 7        |
|                                | 6     | 203    | 109        | <u>72</u>  | 9         | 9          | 2          | 3        |
| bounded                        | 4     | 191    | 10         | <u>57</u>  | 10        | 25         | 17         | 72       |
|                                | 5     | 216    | 12         | <u>115</u> | 12        | 35         | 9          | 33       |
|                                | 6     | 204    | 11         | <u>141</u> | 4         | 21         | 8          | 19       |
| canal                          | 4     | 265    | 20         | 5          | 15        | <u>68</u>  | 59         | 13       |
|                                | 5     | 205    | 15         | 11         | 7         | <u>110</u> | 53         | 8        |
|                                | 6     | 203    | 3          | 3          | 5         | <u>154</u> | 46         | 2        |
| central                        | 4     | 265    | 17         | 29         | 40        | <u>71</u>  | 6          | 14       |
|                                | 5     | 205    | 6          | 24         | 36        | <u>127</u> | 6          | 6        |
|                                | 6     | 203    | 9          | 20         | 17        | <u>148</u> | 3          | 4        |
| channel                        | 4     | 265    | <u>112</u> | 17         | 12        | 15         | 8          | 9        |
|                                | 5     | 205    | <u>156</u> | 13         | 15        | 7          | 5          | 9        |
|                                | 6     | 203    | <u>182</u> | 4          | 6         | 4          | 2          | 5        |
| Civil War                      | 4     | 191    | 46         | 11         | 26        | 5          | <u>36</u>  | 67       |
|                                | 5     | 216    | 74         | 9          | 29        | 8          | <u>76</u>  | 20       |
|                                | 6     | 204    | 40         | 8          | 28        | 4          | <u>98</u>  | 26       |
| conqueror                      | 4     | 185    | 23         | 30         | 19        | 7          | <u>41</u>  | 65       |
|                                | 5     | 215    | 21         | 24         | 26        | 16         | <u>83</u>  | 45       |
|                                | 6     | 199    | 23         | 15         | 25        | 9          | <u>109</u> | 19       |
| continental                    | 4     | 185    | 22         | 53         | <u>19</u> | 12         | 12         | 66       |
|                                | 5     | 215    | 26         | 74         | <u>46</u> | 14         | 13         | 42       |
|                                | 6     | 199    | 28         | 45         | <u>59</u> | 18         | 10         | 30       |
| Declaration of<br>Independence | 4     | 185    | 12         | <u>63</u>  | 18        | 23         | 37         | 27       |
|                                | 5     | 215    | 4          | <u>131</u> | 11        | 10         | 50         | 9        |
|                                | 6     | 199    | 8          | <u>135</u> | 7         | 7          | 38         | 4        |
| dependencies                   | 4     | 185    | 28         | <u>33</u>  | 14        | 9          | 20         | 79       |
|                                | 5     | 215    | 27         | <u>74</u>  | 11        | 12         | 23         | 68       |
|                                | 6     | 199    | 11         | <u>116</u> | 6         | 6          | 35         | 49       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I    | Grade | Number | Choices    |     |     |            |            | Omission |
|-----------|-------|--------|------------|-----|-----|------------|------------|----------|
|           |       |        | (1)        | (2) | (3) | (4)        | (5)        |          |
| direction | 4     | 187    | 33         | 57  | 2   | 8          | <u>78</u>  | 9        |
|           | 5     | 213    | 21         | 61  | 9   | 17         | <u>106</u> | 9        |
|           | 6     | 211    | 10         | 56  | 9   | 4          | <u>129</u> | 4        |
| drain     | 4     | 187    | 20         | 10  | 20  | 17         | <u>89</u>  | 31       |
|           | 5     | 213    | 14         | 8   | 16  | 9          | <u>157</u> | 9        |
|           | 6     | 211    | 11         | 2   | 14  | 16         | <u>162</u> | 8        |
| emperor   | 4     | 191    | 33         | 14  | 11  | 16         | <u>66</u>  | 51       |
|           | 5     | 216    | 20         | 14  | 20  | 18         | <u>129</u> | 16       |
|           | 6     | 204    | 8          | 13  | 10  | 18         | <u>144</u> | 11       |
| erosion   | 4     | 187    | 72         | 15  | 34  | <u>21</u>  | 10         | 35       |
|           | 5     | 213    | 51         | 7   | 42  | <u>70</u>  | 5          | 38       |
|           | 6     | 211    | 25         | 3   | 44  | <u>111</u> | 0          | 28       |
| fertility | 4     | 185    | 21         | 29  | 9   | 14         | <u>37</u>  | 74       |
|           | 5     | 215    | 17         | 14  | 11  | 7          | <u>126</u> | 40       |
|           | 6     | 199    | 14         | 10  | 5   | 5          | <u>144</u> | 20       |
| feuds     | 4     | 189    | 46         | 9   | 30  | <u>41</u>  | 18         | 45       |
|           | 5     | 215    | 34         | 9   | 34  | <u>75</u>  | 17         | 46       |
|           | 6     | 195    | 26         | 5   | 19  | <u>110</u> | 21         | 14       |
| flow      | 4     | 265    | 39         | 19  | 12  | <u>39</u>  | 62         | 7        |
|           | 5     | 205    | 25         | 20  | 6   | <u>77</u>  | 66         | 10       |
|           | 6     | 203    | 17         | 21  | 11  | <u>100</u> | 46         | 7        |
| founded   | 4     | 191    | 17         | 7   | 78  | <u>23</u>  | 10         | 56       |
|           | 5     | 216    | 18         | 4   | 131 | <u>48</u>  | 4          | 11       |
|           | 6     | 204    | 2          | 6   | 133 | <u>54</u>  | 3          | 6        |
| foreign   | 4     | 185    | 7          | 9   | 10  | 13         | <u>125</u> | 20       |
|           | 5     | 215    | 8          | 9   | 4   | 6          | <u>177</u> | 11       |
|           | 6     | 199    | 3          | 7   | 0   | 2          | <u>184</u> | 2        |
| foreigner | 4     | 189    | <u>73</u>  | 17  | 28  | 14         | 12         | 45       |
|           | 5     | 215    | <u>148</u> | 5   | 18  | 5          | 11         | 28       |
|           | 6     | 195    | <u>165</u> | 5   | 5   | 3          | 4          | 13       |
| fortify   | 4     | 185    | 27         | 15  | 19  | <u>38</u>  | 37         | 52       |
|           | 5     | 215    | 15         | 19  | 13  | <u>72</u>  | 50         | 46       |
|           | 6     | 199    | 23         | 17  | 12  | <u>79</u>  | 31         | 37       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I        | Grade | Number | Choices    |            |            |            |            | Omission |
|---------------|-------|--------|------------|------------|------------|------------|------------|----------|
|               |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| freedom       | 4     | 191    | 25         | <u>132</u> | 5          | 18         | 6          | 5        |
|               | 5     | 216    | 17         | <u>185</u> | 1          | 4          | 5          | 4        |
|               | 6     | 204    | 7          | <u>185</u> | 1          | 4          | 5          | 2        |
| frontier      | 4     | 185    | <u>42</u>  | 19         | 42         | 12         | 14         | 45       |
|               | 5     | 215    | <u>115</u> | 11         | 58         | 2          | 8          | 21       |
|               | 6     | 199    | <u>120</u> | 12         | 32         | 9          | 7          | 19       |
| geography     | 4     | 191    | 18         | <u>92</u>  | 5          | 49         | 7          | 14       |
|               | 5     | 216    | 23         | <u>156</u> | 3          | 19         | 8          | 7        |
|               | 6     | 204    | 10         | <u>148</u> | 1          | 37         | 4          | 4        |
| govern        | 4     | 185    | <u>66</u>  | 20         | 20         | 20         | 12         | 42       |
|               | 5     | 215    | <u>133</u> | 14         | 20         | 19         | 12         | 17       |
|               | 6     | 199    | <u>156</u> | 10         | 8          | 12         | 3          | 10       |
| historic      | 4     | 187    | 22         | 25         | <u>81</u>  | 17         | 28         | 14       |
|               | 5     | 213    | 17         | 16         | <u>140</u> | 11         | 20         | 9        |
|               | 6     | 211    | 14         | 5          | <u>152</u> | 6          | 32         | 2        |
| icebergs      | 4     | 185    | 23         | 4          | 3          | 10         | <u>140</u> | 5        |
|               | 5     | 215    | 16         | 2          | 1          | 3          | <u>190</u> | 3        |
|               | 6     | 199    | 15         | 1          | 1          | 3          | <u>118</u> | 1        |
| independent   | 4     | 265    | 19         | 43         | 25         | <u>56</u>  | 19         | 16       |
|               | 5     | 205    | 4          | 24         | 23         | <u>174</u> | 10         | 10       |
|               | 6     | 203    | 3          | 19         | 14         | <u>165</u> | 1          | 3        |
| industry      | 4     | 191    | 28         | 21         | 5          | <u>118</u> | 10         | 9        |
|               | 5     | 216    | 12         | 3          | 4          | <u>192</u> | 1          | 4        |
|               | 6     | 204    | 2          | 3          | 4          | <u>191</u> | 2          | 2        |
| inhabit       | 4     | 187    | 16         | 32         | 16         | <u>52</u>  | 19         | 45       |
|               | 5     | 213    | 21         | 40         | 32         | <u>66</u>  | 17         | 37       |
|               | 6     | 211    | 18         | 21         | 6          | <u>130</u> | 16         | 20       |
| inhabitants   | 4     | 191    | 29         | 8          | 43         | <u>50</u>  | 13         | 48       |
|               | 5     | 216    | 25         | 3          | 39         | <u>27</u>  | 15         | 37       |
|               | 6     | 204    | 11         | 2          | 24         | <u>130</u> | 14         | 23       |
| international | 4     | 185    | 18         | 28         | 15         | 18         | <u>32</u>  | 69       |
|               | 5     | 215    | 21         | 31         | 27         | 24         | <u>66</u>  | 46       |
|               | 6     | 199    | 12         | 15         | 24         | 20         | <u>92</u>  | 29       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I            | Grade | Number | Choices |            |            |            |            | Omission |
|-------------------|-------|--------|---------|------------|------------|------------|------------|----------|
|                   |       |        | (1)     | (2)        | (3)        | (4)        | (5)        |          |
| interior          | 4     | 191    | 38      | 22         | 15         | 14         | <u>35</u>  | 67       |
|                   | 5     | 216    | 35      | 28         | 12         | 21         | <u>72</u>  | 49       |
|                   | 6     | 204    | 36      | 19         | 6          | 9          | <u>94</u>  | 40       |
| invention         | 4     | 191    | 31      | 20         | 11         | 1          | <u>120</u> | 7        |
|                   | 5     | 216    | 13      | 14         | 7          | 0          | <u>178</u> | 4        |
|                   | 6     | 204    | 14      | 6          | 3          | 1          | <u>179</u> | 1        |
| irrigate          | 4     | 191    | 21      | 25         | <u>58</u>  | 19         | 15         | 53       |
|                   | 5     | 216    | 50      | 13         | <u>110</u> | 21         | 9          | 13       |
|                   | 6     | 204    | 34      | 8          | <u>137</u> | 9          | 6          | 10       |
| jury              | 4     | 187    | 42      | 9          | <u>102</u> | 3          | 25         | 6        |
|                   | 5     | 213    | 11      | 3          | <u>156</u> | 6          | 25         | 5        |
|                   | 6     | 211    | 6       | 2          | <u>185</u> | 0          | 15         | 3        |
| kingdom           | 4     | 185    | 10      | <u>129</u> | 7          | 17         | 9          | 11       |
|                   | 5     | 215    | 6       | <u>163</u> | 8          | 12         | 14         | 12       |
|                   | 6     | 199    | 6       | <u>160</u> | 10         | 12         | 7          | 5        |
| legal             | 4     | 187    | 16      | 17         | 14         | 11         | <u>72</u>  | 57       |
|                   | 5     | 213    | 15      | 20         | 8          | 9          | <u>130</u> | 31       |
|                   | 6     | 211    | 4       | 17         | 6          | 3          | <u>169</u> | 12       |
| manufacture       | 4     | 265    | 18      | 35         | 7          | <u>61</u>  | 8          | 49       |
|                   | 5     | 205    | 8       | 22         | 15         | <u>138</u> | 7          | 15       |
|                   | 6     | 203    | 3       | 5          | 7          | <u>106</u> | 5          | 21       |
| manu-<br>facturer | 4     | 189    | 10      | 23         | 29         | 25         | <u>77</u>  | 25       |
|                   | 5     | 215    | 5       | 12         | 16         | 20         | <u>151</u> | 11       |
|                   | 6     | 195    | 1       | 10         | 11         | 7          | <u>161</u> | 5        |
| map               | 4     | 189    | 70      | 12         | 13         | 7          | <u>82</u>  | 5        |
|                   | 5     | 215    | 44      | 17         | 26         | 3          | <u>121</u> | 4        |
|                   | 6     | 195    | 31      | 10         | 20         | 4          | <u>128</u> | 1        |
| marsh             | 4     | 191    | 7       | 46         | 9          | <u>115</u> | 9          | 5        |
|                   | 5     | 216    | 0       | 33         | 1          | <u>169</u> | 4          | 9        |
|                   | 6     | 204    | 1       | 10         | 1          | <u>187</u> | 3          | 2        |
| marshland         | 4     | 187    | 24      | 10         | 8          | <u>106</u> | 16         | 23       |
|                   | 5     | 213    | 12      | 2          | 8          | <u>172</u> | 9          | 10       |
|                   | 6     | 211    | 11      | 3          | 2          | <u>183</u> | 7          | 5        |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I                 | Grade | Number | Choices    |            |            |            |            | Omission |
|------------------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                        |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| military               | 4     | 265    | 5          | 17         | <u>102</u> | 6          | 17         | 32       |
|                        | 5     | 205    | 7          | 13         | <u>145</u> | 9          | 15         | 16       |
|                        | 6     | 203    | 0          | 4          | <u>172</u> | 5          | 13         | 11       |
| missionary             | 4     | 191    | 19         | 18         | 8          | 13         | <u>102</u> | 31       |
|                        | 5     | 216    | 8          | 6          | 11         | 3          | <u>178</u> | 10       |
|                        | 6     | 204    | 4          | 8          | 3          | 5          | <u>178</u> | 6        |
| modern                 | 4     | 187    | 42         | <u>85</u>  | 21         | 17         | 5          | 17       |
|                        | 5     | 213    | 27         | <u>138</u> | 19         | 15         | 7          | 8        |
|                        | 6     | 211    | 15         | <u>152</u> | 6          | 15         | 11         | 5        |
| moisture               | 4     | 187    | 80         | 13         | 10         | 7          | <u>52</u>  | 18       |
|                        | 5     | 213    | 72         | 12         | 7          | 6          | <u>98</u>  | 18       |
|                        | 6     | 211    | 51         | 10         | 9          | 0          | <u>136</u> | 5        |
| natural<br>resources   | 4     | 185    | <u>44</u>  | 19         | 12         | 35         | 20         | 54       |
|                        | 5     | 215    | <u>141</u> | 7          | 17         | 23         | 7          | 20       |
|                        | 6     | 199    | <u>146</u> | 7          | 16         | 17         | 2          | 11       |
| Northern<br>Hemisphere | 4     | 191    | 50         | 10         | <u>64</u>  | 12         | 38         | 27       |
|                        | 5     | 216    | 32         | 6          | <u>90</u>  | 4          | 60         | 24       |
|                        | 6     | 204    | 17         | 11         | <u>106</u> | 2          | 52         | 16       |
| oasis                  | 4     | 265    | 29         | 26         | 13         | <u>43</u>  | 43         | 26       |
|                        | 5     | 205    | 13         | 29         | 7          | <u>58</u>  | 59         | 39       |
|                        | 6     | 203    | 8          | 20         | 9          | <u>102</u> | 40         | 27       |
| occupation             | 4     | 265    | 41         | 4          | 12         | <u>40</u>  | 9          | 22       |
|                        | 5     | 205    | 30         | 5          | 19         | <u>127</u> | 15         | 9        |
|                        | 6     | 203    | 4          | 3          | 10         | <u>177</u> | 7          | 2        |
| Ocean Routes           | 4     | 191    | <u>96</u>  | 9          | 10         | 13         | 14         | 49       |
|                        | 5     | 216    | <u>167</u> | 5          | 4          | 13         | 11         | 16       |
|                        | 6     | 204    | <u>180</u> | 6          | 3          | 7          | 2          | 6        |
| ore                    | 4     | 185    | 27         | 13         | <u>73</u>  | 27         | 26         | 19       |
|                        | 5     | 215    | 23         | 6          | <u>154</u> | 12         | 10         | 10       |
|                        | 6     | 199    | 8          | 1          | <u>168</u> | 4          | 13         | 5        |
| overlords              | 4     | 191    | 26         | 10         | 55         | 12         | <u>42</u>  | 46       |
|                        | 5     | 216    | 16         | 4          | 64         | 22         | <u>73</u>  | 37       |
|                        | 6     | 204    | 10         | 5          | 38         | 11         | <u>114</u> | 26       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I              | Grade | Number | Choices    |            |            |            |            | Omission |
|---------------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                     |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| pass                | 4     | 189    | 38         | 14         | <u>76</u>  | 14         | 22         | 25       |
|                     | 5     | 215    | 29         | 12         | <u>140</u> | 13         | 9          | 31       |
|                     | 6     | 195    | 22         | 8          | <u>142</u> | 9          | 7          | 7        |
| peasant             | 4     | 191    | 24         | 51         | 19         | <u>54</u>  | 16         | 18       |
|                     | 5     | 216    | 17         | 43         | 28         | <u>79</u>  | 14         | 35       |
|                     | 6     | 204    | 25         | 15         | 20         | <u>125</u> | 3          | 16       |
| political           | 4     | 185    | <u>53</u>  | 14         | 16         | 4          | 28         | 68       |
|                     | 5     | 215    | <u>127</u> | 5          | 9          | 2          | 23         | 49       |
|                     | 6     | 199    | <u>147</u> | 15         | 7          | 1          | 13         | 23       |
| population          | 4     | 265    | 8          | 20         | 10         | 12         | <u>89</u>  | 37       |
|                     | 5     | 205    | 4          | 13         | 7          | 7          | <u>168</u> | 6        |
|                     | 6     | 203    | 4          | 30         | 5          | 6          | <u>149</u> | 9        |
| priest              | 4     | 191    | 9          | 5          | 14         | <u>133</u> | 18         | 12       |
|                     | 5     | 216    | 3          | 3          | 8          | <u>183</u> | 11         | 8        |
|                     | 6     | 204    | 1          | 3          | 3          | <u>178</u> | 17         | 2        |
| proclamation        | 4     | 187    | 26         | 13         | 21         | <u>36</u>  | 20         | 71       |
|                     | 5     | 213    | 21         | 28         | 33         | <u>63</u>  | 26         | 42       |
|                     | 6     | 211    | 17         | 22         | 29         | <u>89</u>  | 21         | 29       |
| product             | 4     | 191    | 31         | <u>106</u> | 16         | 14         | 7          | 17       |
|                     | 5     | 216    | 61         | <u>135</u> | 6          | 6          | 2          | 6        |
|                     | 6     | 204    | 41         | <u>148</u> | 4          | 3          | 3          | 5        |
| rapids              | 4     | 185    | <u>105</u> | 19         | 19         | 9          | 14         | 18       |
|                     | 5     | 215    | <u>156</u> | 19         | 2          | 12         | 13         | 13       |
|                     | 6     | 199    | <u>164</u> | 8          | 2          | 12         | 1          | 12       |
| rural               | 4     | 191    | <u>22</u>  | 9          | 17         | 50         | 21         | 73       |
|                     | 5     | 216    | <u>59</u>  | 7          | 20         | 61         | 19         | 50       |
|                     | 6     | 204    | <u>65</u>  | 10         | 12         | 67         | 7          | 43       |
| savagc              | 4     | 191    | 26         | <u>99</u>  | 14         | 7          | 35         | 11       |
|                     | 5     | 216    | 17         | <u>135</u> | 6          | 7          | 45         | 6        |
|                     | 6     | 204    | 16         | <u>158</u> | 2          | 4          | 21         | 3        |
| Self-<br>Government | 4     | 191    | 67         | 35         | 16         | <u>42</u>  | 20         | 11       |
|                     | 5     | 216    | 88         | 21         | 10         | <u>75</u>  | 6          | 15       |
|                     | 6     | 204    | 64         | 13         | 15         | <u>96</u>  | 3          | 13       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I                | Grade | Number | Choices    |            |            |            |            | Omission |
|-----------------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                       |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| sloping               | 4     | 187    | 6          | 11         | <u>120</u> | 14         | 28         | 8        |
|                       | 5     | 213    | 2          | 8          | <u>166</u> | 14         | 13         | 10       |
|                       | 6     | 211    | 2          | 5          | <u>182</u> | 12         | 8          | 2        |
| state                 | 4     | 191    | 47         | <u>49</u>  | 32         | 45         | 6          | 12       |
|                       | 5     | 216    | 30         | <u>104</u> | 12         | 43         | 6          | 21       |
|                       | 6     | 204    | 23         | <u>106</u> | 24         | 32         | 3          | 16       |
| taxes                 | 4     | 187    | <u>118</u> | 6          | 11         | 26         | 6          | 20       |
|                       | 5     | 213    | <u>178</u> | 3          | 11         | 8          | 4          | 8        |
|                       | 6     | 211    | <u>194</u> | 1          | 1          | 9          | 1          | 2        |
| tide                  | 4     | 265    | 4          | 26         | 12         | <u>105</u> | 18         | 13       |
|                       | 5     | 205    | 6          | <u>16</u>  | 7          | <u>156</u> | 26         | 4        |
|                       | 6     | 203    | 2          | 3          | 0          | <u>187</u> | 6          | 5        |
| tomorrow              | 4     | 191    | 9          | 20         | 8          | 26         | <u>117</u> | 11       |
|                       | 5     | 216    | 7          | 13         | 3          | 26         | <u>156</u> | 10       |
|                       | 6     | 204    | 4          | 6          | 4          | 18         | <u>169</u> | 3        |
| tract                 | 4     | 189    | 40         | 52         | 20         | <u>29</u>  | 17         | 31       |
|                       | 5     | 215    | 42         | <u>65</u>  | 14         | <u>44</u>  | 18         | 32       |
|                       | 6     | 195    | 14         | 56         | 7          | <u>80</u>  | 10         | 28       |
| trans-<br>continental | 4     | 265    | 12         | 39         | 8          | <u>31</u>  | 29         | 57       |
|                       | 5     | 205    | 18         | 44         | 3          | <u>63</u>  | 36         | 41       |
|                       | 6     | 203    | 19         | 30         | 3          | <u>100</u> | 15         | 32       |
| unity                 | 4     | 185    | 48         | 11         | <u>71</u>  | 15         | 8          | 35       |
|                       | 5     | 215    | 33         | 6          | <u>123</u> | 17         | 7          | 32       |
|                       | 6     | 199    | 17         | 6          | <u>138</u> | 10         | 2          | 25       |
| vegetation            | 4     | 187    | 29         | <u>37</u>  | 13         | 27         | 16         | 65       |
|                       | 5     | 213    | 16         | <u>88</u>  | 17         | 51         | 11         | 30       |
|                       | 6     | 211    | 14         | <u>121</u> | 30         | 30         | 8          | 37       |
| vessel                | 4     | 187    | <u>95</u>  | 20         | 16         | 10         | 4          | 42       |
|                       | 5     | 213    | <u>185</u> | 10         | 1          | 5          | 3          | 9        |
|                       | 6     | 211    | <u>182</u> | 6          | 5          | 1          | 5          | 12       |
| veto                  | 4     | 189    | <u>71</u>  | 16         | 13         | 27         | 13         | 49       |
|                       | 5     | 215    | <u>131</u> | 12         | 9          | 21         | 11         | 31       |
|                       | 6     | 195    | <u>130</u> | 4          | 7          | 16         | 8          | 21       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form I      | Grade | Number | Choices    |            |            |            |            | Omission |
|-------------|-------|--------|------------|------------|------------|------------|------------|----------|
|             |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| villagers   | 4     | 189    | <u>103</u> | 15         | 13         | 15         | 11         | 32       |
|             | 5     | 215    | <u>174</u> | 5          | 8          | 7          | 4          | 17       |
|             | 6     | 195    | <u>168</u> | 2          | 3          | 7          | 3          | 13       |
| volcano     | 4     | 185    | 9          | 15         | 12         | 10         | <u>95</u>  | 23       |
|             | 5     | 215    | 0          | 4          | 5          | 4          | <u>183</u> | 19       |
|             | 6     | 199    | 1          | 1          | 7          | 1          | <u>183</u> | 6        |
| waterpower  | 4     | 189    | 53         | 14         | 42         | <u>46</u>  | 19         | 15       |
|             | 5     | 215    | 21         | 5          | 51         | <u>122</u> | 11         | 12       |
|             | 6     | 189    | 16         | 1          | 39         | <u>111</u> | 18         | 5        |
| Form II     |       |        |            |            |            |            |            |          |
| agriculture | 4     | 189    | 25         | 21         | <u>35</u>  | 17         | <u>35</u>  | 56       |
|             | 5     | 215    | 10         | 21         | <u>97</u>  | 8          | 42         | 37       |
|             | 6     | 195    | 10         | 7          | <u>145</u> | 2          | 15         | 15       |
| aqueduct    | 4     | 189    | 37         | 14         | 18         | 15         | <u>59</u>  | 46       |
|             | 5     | 215    | 38         | 6          | 8          | 6          | <u>110</u> | 42       |
|             | 6     | 195    | 18         | 7          | 4          | 12         | <u>134</u> | 20       |
| ashore      | 4     | 187    | 27         | <u>115</u> | 40         | 2          | 0          | 3        |
|             | 5     | 213    | 23         | <u>158</u> | 29         | 1          | 1          | 1        |
|             | 6     | 211    | 10         | <u>175</u> | 20         | 4          | 1          | 1        |
| borderland  | 4     | 185    | 40         | 85         | 13         | 7          | 10         | 29       |
|             | 5     | 215    | 35         | <u>149</u> | 6          | 7          | 4          | 14       |
|             | 6     | 199    | 36         | <u>151</u> | 3          | 4          | 1          | 4        |
| breezes     | 4     | 265    | 13         | <u>99</u>  | 6          | 4          | 11         | 45       |
|             | 5     | 205    | 3          | <u>175</u> | 4          | 1          | 12         | 9        |
|             | 6     | 203    | 1          | <u>156</u> | 11         | 0          | 4          | 31       |
| calms       | 4     | 265    | 18         | 19         | <u>36</u>  | 58         | 33         | 12       |
|             | 5     | 205    | 16         | 17         | <u>44</u>  | 60         | 40         | 28       |
|             | 6     | 203    | 7          | 11         | <u>97</u>  | 36         | 31         | 20       |
| canyon      | 4     | 187    | 64         | <u>88</u>  | 11         | 15         | 3          | 6        |
|             | 5     | 213    | 51         | <u>134</u> | 9          | 12         | 2          | 5        |
|             | 6     | 211    | 53         | <u>143</u> | 3          | 9          | 3          | 1        |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form II             | Grade | Number | Choices    |            |            |            |            | Omission |
|---------------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                     |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| cargo               | 4     | 265    | <u>115</u> | 7          | 26         | 6          | 11         | 17       |
|                     | 5     | 205    | <u>170</u> | 14         | 7          | 4          | 5          | 5        |
|                     | 6     | 203    | <u>181</u> | 2          | 4          | 3          | 6          | 7        |
| century             | 4     | 189    | 31         | 17         | 11         | 13         | <u>93</u>  | 24       |
|                     | 5     | 215    | 27         | 12         | 5          | 3          | <u>163</u> | 5        |
|                     | 6     | 195    | 17         | 4          | 5          | 3          | <u>165</u> | 1        |
| Chain of<br>Islands | 4     | 187    | 1          | 15         | 6          | <u>136</u> | 10         | 13       |
|                     | 5     | 213    | 7          | 27         | 7          | <u>161</u> | 3          | 8        |
|                     | 6     | 211    | 13         | 11         | 4          | <u>168</u> | 4          | 7        |
| climate             | 4     | 185    | <u>88</u>  | 8          | 11         | 17         | 9          | 42       |
|                     | 5     | 215    | <u>180</u> | 3          | 7          | 7          | 4          | 14       |
|                     | 6     | 199    | <u>178</u> | 3          | 3          | 7          | 2          | 6        |
| coastal             | 4     | 185    | 27         | <u>28</u>  | 21         | 14         | <u>35</u>  | 58       |
|                     | 5     | 215    | 7          | <u>125</u> | 25         | 3          | 26         | 29       |
|                     | 6     | 199    | 14         | <u>116</u> | 25         | 4          | 20         | 30       |
| command             | 4     | 191    | 18         | 20         | 39         | <u>97</u>  | 6          | 11       |
|                     | 5     | 216    | 10         | 18         | 37         | <u>140</u> | 4          | 7        |
|                     | 6     | 204    | 5          | 8          | 24         | <u>157</u> | 3          | 2        |
| community           | 4     | 265    | 25         | 15         | 28         | 8          | <u>79</u>  | 25       |
|                     | 5     | 205    | 23         | 23         | 21         | 7          | <u>114</u> | 17       |
|                     | 6     | 203    | 6          | 11         | 13         | 13         | <u>146</u> | 14       |
| constitution        | 4     | 265    | 37         | 9          | <u>56</u>  | 39         | 12         | 24       |
|                     | 5     | 205    | 32         | 5          | <u>135</u> | 15         | 6          | 13       |
|                     | 6     | 203    | 16         | 9          | <u>153</u> | 11         | 5          | 9        |
| continent           | 4     | 187    | 19         | <u>46</u>  | 14         | 38         | 22         | 48       |
|                     | 5     | 213    | 13         | <u>111</u> | 9          | <u>35</u>  | 17         | 28       |
|                     | 6     | 211    | 16         | <u>131</u> | 7          | 25         | 12         | 19       |
| daily               | 4     | 187    | 17         | 10         | 10         | 3          | <u>124</u> | 23       |
|                     | 5     | 213    | 9          | 5          | 4          | 6          | <u>181</u> | 8        |
|                     | 6     | 211    | 13         | 1          | 8          | 9          | <u>176</u> | 4        |
| delta               | 4     | 187    | 26         | 19         | 24         | <u>64</u>  | 18         | 36       |
|                     | 5     | 213    | 15         | 20         | 29         | <u>106</u> | 14         | 29       |
|                     | 6     | 211    | 19         | 17         | 46         | <u>96</u>  | 8          | 25       |

TABLE VII (continued)  
 ANALYSIS OF RESPONSES TO DEFINITIONS  
 OF 160 WORDS IN THE WOLFFER TEST

| Form II        | Grade | Number         | Choices       |            |            |               |            | Omission      |
|----------------|-------|----------------|---------------|------------|------------|---------------|------------|---------------|
|                |       |                | (1)           | (2)        | (3)        | (4)           | (5)        |               |
| drought        | 4     | 187            | 86            | 8          | 19         | 12            | 10         | 52            |
|                | 5     | 213            | <u>131</u>    | 5          | 15         | 9             | 18         | 35            |
|                | 6     | 211            | <u>152</u>    | 8          | 15         | 3             | 10         | 24            |
| earthquakes    | 4     | 191            | 5             | 10         | 9          | 12            | 94         | 61            |
|                | 5     | <del>216</del> | 9             | 6          | 9          | 4             | <u>169</u> | <del>19</del> |
|                | 6     | 204            | 8             | 2          | 3          | 7             | <u>168</u> | 15            |
| elect          | 4     | 185            | 12            | 13         | <u>142</u> | 4             | 5          | 11            |
|                | 5     | 215            | 5             | 13         | <u>190</u> | 3             | 2          | 2             |
|                | 6     | 199            | 3             | 7          | <u>186</u> | •             | 2          | 1             |
| embankment     | 4     | 185            | 58            | 31         | 13         | 6             | 22         | 34            |
|                | 5     | 215            | <u>91</u>     | 31         | 13         | 15            | 18         | 47            |
|                | 6     | 199            | <u>105</u>    | 20         | 18         | 7             | 17         | 32            |
| equator        | 4     | 191            | 38            | <u>107</u> | 24         | 8             | 11         | 9             |
|                | 5     | 216            | 36            | <u>130</u> | 31         | 12            | 2          | 5             |
|                | 6     | 204            | 32            | <u>143</u> | 16         | 6             | 0          | 7             |
| era            | 4     | 191            | 55            | 20         | 28         | 20            | 22         | 46            |
|                | 5     | 216            | 57            | 27         | 25         | <u>59</u>     | 25         | 29            |
|                | 6     | 204            | 27            | 19         | 18         | <u>102</u>    | 20         | 18            |
| fertile        | 4     | 191            | 2             | 98         | 16         | 27            | 17         | 31            |
|                | 5     | 216            | 6             | <u>124</u> | 13         | 26            | 42         | 5             |
|                | 6     | 204            | 1             | <u>154</u> | 7          | 14            | 21         | 7             |
| fertilizer     | 4     | 187            | 109           | 17         | 18         | 18            | 5          | 20            |
|                | 5     | 213            | <u>143</u>    | 8          | 12         | 38            | 6          | 6             |
|                | 6     | 211            | <u>166</u>    | 9          | 8          | 24            | 3          | 1             |
| forces         | 4     | 185            | 6             | 15         | 12         | 7             | <u>122</u> | 18            |
|                | 5     | 215            | 6             | 15         | 1          | 6             | <u>178</u> | 11            |
|                | 6     | 199            | 3             | 3          | 1          | 7             | <u>169</u> | 6             |
| fortress       | 4     | 191            | <del>50</del> | 8          | 18         | <del>40</del> | 9          | 66            |
|                | 5     | 216            | 66            | 6          | 14         | <u>86</u>     | 3          | 41            |
|                | 6     | 204            | 41            | 11         | 9          | <u>115</u>    | 4          | 24            |
| Frigid<br>Zone | 4     | 185            | 26            | <u>38</u>  | 22         | 12            | 23         | 64            |
|                | 5     | 215            | 25            | <u>95</u>  | 13         | 18            | 22         | 42            |
|                | 6     | 199            | 16            | <u>125</u> | 11         | 11            | 11         | 26            |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form II                | Grade | Number | Choices    |            |            |            |            | Omission |
|------------------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                        |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| gap                    | 4     | 265    | 54         | 17         | 12         | 44         | 17         | 34       |
|                        | 5     | 205    | 31         | 9          | 15         | <u>121</u> | 17         | 13       |
|                        | 6     | 203    | 28         | 11         | 5          | <u>133</u> | 13         | 13       |
| global                 | 4     | 191    | 20         | 20         | 22         | 71         | 30         | 27       |
|                        | 5     | 216    | 22         | 20         | 28         | <u>93</u>  | 9          | 44       |
|                        | 6     | 204    | 13         | 14         | 15         | <u>126</u> | 14         | 22       |
| gorge                  | 4     | 185    | 31         | 32         | 17         | 43         | 33         | 29       |
|                        | 5     | 215    | 21         | 21         | 9          | <u>88</u>  | 38         | 28       |
|                        | 6     | 199    | 23         | 7          | 5          | <u>116</u> | 33         | 25       |
| Government<br>Official | 4     | 191    | 22         | 16         | 17         | 80         | 12         | 49       |
|                        | 5     | 216    | 8          | 3          | 9          | <u>156</u> | 14         | 26       |
|                        | 6     | 204    | 10         | 2          | 9          | <u>154</u> | 12         | 17       |
| grant of<br>land       | 4     | 189    | 17         | 28         | 29         | 46         | 38         | 31       |
|                        | 5     | 215    | 17         | 12         | 29         | <u>102</u> | 20         | 35       |
|                        | 6     | 195    | 14         | 9          | 20         | <u>117</u> | 11         | 24       |
| hemisphere             | 4     | 185    | 21         | 28         | 14         | 14         | <u>36</u>  | 70       |
|                        | 5     | 215    | 17         | 18         | 20         | 24         | <u>86</u>  | 50       |
|                        | 6     | 199    | 15         | 29         | 19         | 15         | <u>140</u> | 22       |
| history                | 4     | 185    | 78         | 33         | 14         | 38         | 6          | 5        |
|                        | 5     | 215    | <u>138</u> | 20         | 25         | 22         | 7          | 3        |
|                        | 6     | 199    | <u>147</u> | 7          | 17         | 15         | 2          | 2        |
| horizon                | 4     | 185    | 38         | 17         | 19         | 52         | 16         | 41       |
|                        | 5     | 215    | 42         | 21         | 10         | <u>104</u> | 10         | 28       |
|                        | 6     | 199    | 50         | 28         | 5          | <u>103</u> | 5          | 8        |
| inland                 | 4     | 285    | 31         | 18         | 10         | 53         | 16         | 44       |
|                        | 5     | 205    | 41         | 15         | 7          | <u>101</u> | 21         | 20       |
|                        | 6     | 203    | 10         | 6          | 3          | <u>166</u> | 5          | 14       |
| inlet                  | 4     | 191    | 11         | 68         | 46         | 27         | 21         | 18       |
|                        | 5     | 216    | 9          | <u>113</u> | 37         | 14         | 28         | 15       |
|                        | 6     | 204    | 13         | <u>124</u> | 37         | 8          | 14         | 8        |
| invasion               | 4     | 185    | 14         | 13         | 41         | 27         | 23         | 64       |
|                        | 5     | 215    | 22         | 8          | <u>72</u>  | 18         | 28         | 67       |
|                        | 6     | 199    | 20         | 6          | <u>120</u> | 10         | 13         | 30       |

TABLE VII-(continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form II           | Grade | Number     |            |            |            |            |            | Omission |
|-------------------|-------|------------|------------|------------|------------|------------|------------|----------|
|                   |       |            | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| irrigation        | 4     | 265        | 17         | 27         | 48         | 13         | 18         | 54       |
|                   | 5     | 205        | 16         | 52         | 88         | 14         | 10         | 24       |
|                   | 6     | 203        | 5          | 27         | <u>137</u> | 14         | 1          | 19       |
| League of Nations | 4     | 187        | 65         | 28         | 16         | 16         | 7          | 55       |
|                   | 5     | 213        | <u>105</u> | 31         | 8          | 17         | 12         | 40       |
|                   | 6     | 211        | <u>125</u> | 21         | 15         | 10         | 8          | 32       |
| Level of the Sea  | 4     | 187        | 22         | 15         | 22         | 39         | 61         | 28       |
|                   | 5     | 213        | 18         | 13         | 13         | 40         | <u>118</u> | 9        |
|                   | 6     | 211        | 10         | 7          | 12         | 24         | <u>146</u> | 12       |
| merchants         | 4     | 189        | 57         | 14         | 11         | 63         | 29         | 15       |
|                   | 5     | 215        | 60         | 9          | 4          | <u>111</u> | 17         | 14       |
|                   | 6     | 195        | 36         | 5          | 2          | <u>138</u> | 9          | 5        |
| mesque            | 4     | 189        | 21         | 13         | 16         | 26         | 75         | 38       |
|                   | 5     | 215        | 13         | 14         | 18         | 16         | <u>112</u> | 14       |
|                   | 6     | 195        | 2          | 8          | 15         | 6          | <u>141</u> | 25       |
| mother country    | 4     | 191        | 51         | 8          | 23         | 15         | 25         | 69       |
|                   | 5     | 216        | 69         | 4          | 24         | <u>63</u>  | 34         | 24       |
|                   | 6     | 204        | 67         | 4          | 17         | <u>70</u>  | 28         | 18       |
| natives           | 4     | 187        | 9          | 46         | 24         | 40         | 24         | 44       |
|                   | 5     | 213        | 7          | 48         | 32         | <u>89</u>  | 10         | 27       |
|                   | 6     | 211        | 6          | 30         | 17         | <u>138</u> | 4          | 16       |
| nature            | 4     | 191        | 12         | 13         | 109        | 19         | 10         | 18       |
|                   | 5     | 216        | 9          | 13         | <u>167</u> | 7          | 11         | 9        |
|                   | 6     | 204        | 6          | 2          | <u>179</u> | 11         | 2          | 4        |
| overflow          | 4     | 187        | 25         | 8          | 14         | 9          | 88         | 43       |
|                   | 5     | 213        | 13         | 5          | 5          | 4          | <u>170</u> | 16       |
|                   | 6     | 211        | 16         | 6          | 1          | 3          | <u>175</u> | 10       |
| patriot           | 4     | 191        | 25         | 74         | 7          | 18         | 17         | 50       |
|                   | 5     | 216        | 9          | <u>141</u> | 9          | 12         | 21         | 24       |
|                   | 6     | 204        | 13         | <u>144</u> | 9          | 13         | 9          | 16       |
| patriotism        | 4     | 185        | 92         | 15         | 10         | 12         | 13         | 42       |
|                   | 5     | 215        | <u>123</u> | 18         | 9          | 12         | 6          | 47       |
|                   | 6     | <u>100</u> | <u>140</u> | 22         | 0          | 3          | 4          | 22       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form II         | Grade | Number | Choices    |            |            |            |            | Omission |
|-----------------|-------|--------|------------|------------|------------|------------|------------|----------|
|                 |       |        | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| peaceful        | 4     | 185    | 98         | 25         | 11         | 6          | 6          | 33       |
|                 | 5     | 215    | <u>170</u> | 17         | 5          | 4          | 4          | 15       |
|                 | 6     | 199    | <u>169</u> | 9          | 6          | 3          | 4          | 8        |
| peninsula       | 4     | 265    | 9          | 9          | 13         | 83         | 19         | 47       |
|                 | 5     | 205    | 16         | 7          | 4          | <u>141</u> | 17         | 20       |
|                 | 6     | 203    | 3          | 14         | 4          | <u>146</u> | 15         | 15       |
| pioneering      | 4     | 187    | 30         | 36         | 15         | 20         | 36         | 50       |
|                 | 5     | 213    | 34         | 38         | 19         | <u>50</u>  | 49         | 23       |
|                 | 6     | 211    | 35         | 22         | 14         | <u>93</u>  | 10         | 11       |
| political party | 4     | 191    | 12         | 65         | 18         | 22         | 25         | 49       |
|                 | 5     | 216    | 11         | <u>83</u>  | 14         | 41         | 37         | 30       |
|                 | 6     | 204    | 4          | <u>101</u> | 13         | 27         | 35         | 24       |
| power plant     | 4     | 185    | 18         | 28         | 20         | <u>91</u>  | 19         | 8        |
|                 | 5     | 215    | 22         | 24         | 17         | <u>128</u> | 14         | 10       |
|                 | 6     | 199    | 6          | 15         | 5          | <u>154</u> | 12         | 5        |
| produce         | 4     | 185    | 24         | 48         | 33         | 13         | 24         | 13       |
|                 | 5     | 215    | 9          | <u>139</u> | 16         | 8          | 15         | 28       |
|                 | 6     | 199    | 5          | <u>146</u> | 8          | 10         | 12         | 17       |
| region          | 4     | 191    | 37         | 23         | 74         | 35         | 10         | 12       |
|                 | 5     | 216    | 20         | 14         | <u>161</u> | 13         | 2          | 6        |
|                 | 6     | 204    | 21         | 11         | <u>146</u> | 10         | 7          | 9        |
| reign           | 4     | 265    | 59         | 46         | 7          | 40         | 7          | 20       |
|                 | 5     | 205    | 50         | 51         | 7          | <u>67</u>  | 5          | 25       |
|                 | 6     | 203    | 47         | 43         | 7          | <u>92</u>  | 2          | 10       |
| represent       | 4     | 189    | 14         | 62         | 34         | 22         | 31         | 26       |
|                 | 5     | 215    | 9          | <u>112</u> | 29         | 20         | 25         | 20       |
|                 | 6     | 195    | 7          | <u>144</u> | 15         | 8          | 13         | 8        |
| reservoir       | 4     | 189    | 57         | 15         | 33         | 29         | 16         | 39       |
|                 | 5     | 215    | <u>99</u>  | 17         | 25         | 26         | 11         | 37       |
|                 | 6     | 195    | <u>128</u> | 13         | 9          | 23         | 5          | 17       |
| ruler           | 4     | 185    | 10         | 5          | 10         | 38         | <u>103</u> | 9        |
|                 | 5     | 215    | 3          | 2          | 2          | 10         | <u>189</u> | 9        |
|                 | 6     | 199    | 0          | 1          | 1          | 5          | <u>179</u> | 3        |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

|                     | Grade | Number         | Choices    |            |            |            |            | Omission |
|---------------------|-------|----------------|------------|------------|------------|------------|------------|----------|
|                     |       |                | (1)        | (2)        | (3)        | (4)        | (5)        |          |
| Form II             |       |                |            |            |            |            |            |          |
| Secretary of State  | 4     | 191            | 26         | 9          | 9          | 29         | <u>67</u>  | 51       |
|                     | 5     | 216            | 20         | 7          | 9          | 48         | <u>103</u> | 29       |
|                     | 6     | 204            | 18         | 4          | 3          | 41         | <u>111</u> | 27       |
| Southern Hemisphere | 4     | 189            | 56         | <u>52</u>  | 10         | 14         | 15         | 42       |
|                     | 5     | 215            | 69         | <u>83</u>  | 2          | 25         | 15         | 26       |
|                     | 6     | 195            | 53         | <u>109</u> | 3          | 9          | 4          | 17       |
| strait              | 4     | 265            | 14         | <u>50</u>  | 11         | 29         | 30         | 43       |
|                     | 5     | 205            | 6          | <u>109</u> | 16         | 39         | 13         | 21       |
|                     | 6     | 203            | 10         | <u>130</u> | 14         | 19         | 16         | 15       |
| stream              | 4     | <del>265</del> | 14         | 8          | 8          | 14         | <u>101</u> | 34       |
|                     | 5     | 205            | 20         | 1          | 4          | 5          | <u>166</u> | 9        |
|                     | 6     | 203            | 4          | 1          | 3          | 9          | <u>170</u> | 17       |
| surrender           | 4     | 265            | 2          | 8          | 7          | <u>108</u> | 8          | 45       |
|                     | 5     | 205            | 4          | 15         | 5          | <u>165</u> | 4          | 11       |
|                     | 6     | 203            | 1          | 5          | 2          | <u>163</u> | 1          | 31       |
| term                | 4     | 191            | 5          | 8          | 17         | <u>89</u>  | 13         | 59       |
|                     | 5     | 216            | 11         | 9          | 9          | <u>159</u> | 9          | 19       |
|                     | 6     | 204            | 6          | 4          | 4          | <u>177</u> | 6          | 7        |
| terrace             | 4     | 191            | 56         | 9          | 18         | 10         | 19         | 79       |
|                     | 5     | 216            | 62         | 27         | 24         | 6          | <u>50</u>  | 27       |
|                     | 6     | 204            | 55         | 8          | 25         | 5          | <u>78</u>  | 33       |
| territory           | 4     | 191            | 11         | 64         | 15         | <u>11</u>  | 19         | 71       |
|                     | 5     | 216            | 17         | <u>133</u> | 15         | 13         | 15         | 23       |
|                     | 6     | 204            | 8          | <u>138</u> | 16         | 4          | 21         | 17       |
| throne              | 4     | 185            | 72         | 42         | 53         | 3          | 7          | 6        |
|                     | 5     | 215            | 91         | <u>36</u>  | <u>77</u>  | 0          | 6          | 5        |
|                     | 6     | 199            | 49         | <u>26</u>  | <u>116</u> | 0          | 0          | 8        |
| transport           | 4     | 185            | 97         | 33         | 16         | 15         | 15         | 22       |
|                     | 5     | 215            | <u>143</u> | 36         | 4          | 3          | 19         | 10       |
|                     | 6     | 199            | <u>137</u> | 39         | 4          | 2          | 7          | 10       |
| transportation      | 4     | 189            | 13         | 74         | 22         | 37         | 13         | 36       |
|                     | 5     | 215            | 5          | <u>136</u> | 13         | 35         | 12         | 14       |
|                     | 6     | 195            | 2          | <u>125</u> | 10         | 45         | 3          | 10       |

TABLE VII (continued)

ANALYSIS OF RESPONSES TO DEFINITIONS  
OF 160 WORDS IN THE WOLFFER TEST

| Form II    | Grade | Number | Choices    |            |           |            |            | Omission |
|------------|-------|--------|------------|------------|-----------|------------|------------|----------|
|            |       |        | (1)        | (2)        | (3)       | (4)        | (5)        |          |
| treaty     | 4     | 185    | 20         | 105        | 12        | 14         | 17         | 18       |
|            | 5     | 215    | 7          | <u>177</u> | 11        | 8          | 4          | 7        |
|            | 6     | 199    | 6          | <u>177</u> | 2         | 4          | 6          | 5        |
| tributary  | 4     | 265    | 44         | 27         | 12        | 10         | 7          | 76       |
|            | 5     | 205    | <u>127</u> | 14         | 8         | 22         | <u>11</u>  | 23       |
|            | 6     | 203    | <u>102</u> | 7          | 15        | 28         | 9          | 42       |
| unite      | 4     | 191    | 9          | 79         | 9         | 12         | 18         | 64       |
|            | 5     | 216    | 9          | <u>154</u> | 3         | 5          | 19         | 26       |
|            | 6     | 204    | 9          | <u>165</u> | 1         | 6          | 11         | 12       |
| up to date | 4     | 185    | 121        | 12         | 19        | <u>11</u>  | 4          | 16       |
|            | 5     | 215    | <u>175</u> | 14         | 12        | 4          | 3          | 6        |
|            | 6     | 199    | <u>181</u> | 1          | 10        | 2          | 2          | 3        |
| volcanic   | 4     | 187    | 29         | 34         | 20        | 13         | 43         | 48       |
|            | 5     | 213    | 14         | <u>90</u>  | 18        | 10         | 34         | 47       |
|            | 6     | 211    | 12         | <u>117</u> | <u>16</u> | 4          | 38         | 24       |
| vote       | 4     | 265    | 20         | 3          | 4         | 26         | 96         | 29       |
|            | 5     | 205    | 19         | 1          | 17        | 16         | <u>145</u> | 7        |
|            | 6     | 203    | 7          | 1          | 13        | 8          | <u>156</u> | 17       |
| warrior    | 4     | 187    | 13         | 30         | 4         | 136        | 2          | 2        |
|            | 5     | 213    | 13         | 18         | 3         | <u>174</u> | 0          | 5        |
|            | 6     | 211    | 13         | 11         | 2         | <u>177</u> | 2          | 6        |

Many misconceptions were due to faulty reading habits. Errors of configuration caused many pupils to choose wrong definitions for a few of the words in the test.

The following table lists all the words showing errors of configuration.

TABLE VIII

MISCONCEPTIONS PROBABLY DUE TO CONFIGURATION

| <u>Word</u>      | <u>Right Choice</u>    | <u>Wrong Choice</u>              | <u>Explanation</u> |
|------------------|------------------------|----------------------------------|--------------------|
| era              | age                    | place                            | area               |
| frigid zone      | very cold region       | very hot region near the equator | torrid             |
| inhabit          | to live in             | to always do things the same way | habit              |
| inland           | away from the sea      | surrounded by water              | island             |
| level of the sea | at the ocean's surface | a smooth sea                     | level sea          |
| mosque           | a place of worship     | a kind of moth<br>a green moss   | moth<br>moss       |
| reservoir        | a place to keep water  | a place where Indians now live   | reservation        |
| tract            | a large piece of land  | to follow something              | track              |

Errors in comprehension of the sentences in the Wolffer Test were a second cause of misconceptions. The following table lists all the words in which the error was due to an error of comprehension.

TABLE IX

## MISCONCEPTIONS DUE TO ERRORS OF COMPREHENSION

| <u>Word</u>    | <u>Right Choice</u>              | <u>Wrong Choice</u>       | <u>Explanation</u>                                    |
|----------------|----------------------------------|---------------------------|---|
| agriculture    | farming                          | weather                   | related to farming in the same way as weather is      |
| aqueduct       | pipeline                         | a tank truck              | carry in the sense of transporting                    |
| coastal        | along the coast                  | from other countries      | ships coming from the Gulf of Mexico as foreign ships |
| constitution   | a system of laws                 | early national government | type of government                                    |
| mother country | nation from which colonists came | leading nation            | leader in the sense of mother                         |
| terrace        | land made like steps             | cultivate land            | a method of farming                                   |
| transport      | carry                            | trade                     | exchange  |

The greatest cause of errors in the Wolffer Test was that of association of ideas. Associating wrong ideas with a word caused many of the pupils to choose wrong meaning for a given test item. Following is a list of the words in which the errors were due to wrong associations of ideas.

TABLE I  
MISCONCEPTIONS DUE TO WRONG ASSOCIATIONS OF IDEAS

| <u>Word</u> | <u>Right Choice</u>                           | <u>Wrong Choice</u>       | <u>Explanation</u>   |
|-------------|---|---------------------------|--|
| border      | edge  | state line                | a dividing line  |
| borderland  | land near the edge of a country               | along the coast           | beaches are heavily patrolled by the Coast Guard during wartime      |
| calms       | no wind                                       | storms                    | ships lost in storms as shown in movies and stories of sailing ships |
| civil war   | war between two groups in the same country    | war between two countries | revolutionary war and civil wars in South America                    |
| continental | belonging to all the colonies                 | the confederate army      | soldiers with the word army in the distractor                        |
| delta       | land formed by soil carried down by the river | along a river             | associating with farms in the Nile Valley and India                  |
| flow        | direction of the water                        | swift currents            | rapids   |
| fortify     | make strong                                   | build                     | settle an area   |
| fortress    | a strong place for safety                     | prison                    | guarded area thought of as a prison                                  |
| founded     | started                                       | discovered                | founding and finding treated as synonyms                             |
| history     | story of the past                             | archeol subject           | the word in everyday use in the classroom by the pupils              |

TABLE X (continued)

MISCONCEPTIONS DUE TO WRONG ASSOCIATIONS OF IDEAS

| <u>Word</u>         | <u>Right Choice</u>                                    | <u>Wrong Choice</u>        | <u>Explanation</u>                                       |
|---------------------|--|----------------------------|--|
| irrigate            | provide water  | cultivate                  | method of farming  |
| irrigation          | watering land  | cultivation                | method not a process in farming                          |
| map                 | chart the land   | find the way               | using a map to find one's way                            |
| moisture            | water  | soils                      | forms of soil  |
| natives             | born in that place                                     | people who live in huts    | natives of Africa and Asia                               |
| oasis               | fertile place  | sand dune                  | features of the deserts                                  |
| political party     | a group who wants certain people in government offices | people who run for office  | thinking of candidates not parties                       |
| self-government     | people choose their lawmakers                          | everyone rules himself     | self as oneself not as designating the entire population |
| southern hemisphere | land south of the equator                              | south of the United States | Latin American countries                                 |
| throne              | power to rule  | a royal crown              | with king not with his power                             |
| transcontinental    | from coast to coast                                    | long trips                 | making easy flights associated with long trips           |
| volcanic            | fertile ash  | fertile soil               | ground from the key sentence with soil                   |
| vegetation          | plant life   | farming                    | vegetable and farming                                    |

Many of the words were not analyzed because the errors in choosing the responses were the result of guessing. These were cases where there seemed to be no relationship between the distractor chosen and the item or words in the key sentence.

The study of omissions and the reason for omissions has been left aside since this would lead to the writing of a manual to help teachers make social studies vocabulary more meaningful to the children. This study of omissions in order to prepare a Social Studies Vocabulary Manual could form the basis for some future study.

No attempt was made to analyze the choices on the basis of sex differences. There seemed to be little or no difference in the number of boys and girls choosing the same wrong responses.

From the above analysis it seems that the majority of wrong responses were caused by wrong associations of ideas fostered by unfamiliarity with the test items. The associations were made either through home influence or through associations based on ideas derived from reading books or other sources of information, such as movies, television, radio, or pictures, found in the home and the classroom.

Another cause of misconceptions was the lack of ability to understand the meaning of the key sentence. Had the pupils understood the key sentence they would have been able to answer the test item correctly. This source of errors is a carry-over from the misconceptions acquired in reading. This cause of misconceptions is also found in all tests that involve reading in order to answer the test items.

Some misconceptions were caused by mistakes in configuration. The chief errors of configuration were: reading wrong letters within the word, dropping the prefix of a word, and mistaken final consonants.

EARLEY SOCIAL STUDIES VOCABULARY TEST

In the analysis of the Earley Social Studies Vocabulary Test inferences are based on a careful inspection and interpretation of an item analysis of the 250 words of the Final Forms. These words were retained by Earley from the 720 words of the five experimental forms to compose the two final forms. The data on which this study is based were obtained from the results of the experimental forms as given in nine communities to a total of 3,039 children of grades four, five, and six.

The analysis shows several reasons why children failed to place a word in the proper category and points out a number of interesting trends that should prove helpful in the teaching of social studies vocabulary.

The two lists in Table XI of 125 words each, constitute the final forms of the Earley Social Studies Vocabulary Test arranged alphabetically.

TABLE XI

WORDS IN THE FINAL FORMS OF EARLEY  
SOCIAL STUDIES VOCABULARY TEST

## FORM I

|               |               |            |                           |
|---------------|---------------|------------|---------------------------|
| admiral       | century       | geyser     | military forces           |
| alps          | chemist       | goldsmith  | mink                      |
| aluminum      | cherries      | harvest    | moisture                  |
| ambassador    | cobbler       | hemisphere | moose                     |
| amethyst      | commander     | herder     | nation                    |
| archaeologist | coppersmith   | hogs       | navigable                 |
| archbishop    | covered wagon | ice floe   | navigation                |
| artist        | crest         | inland     | navigator<br>(2 concepts) |
| astronomer    | cultivate     | invade     | nitrogen                  |
| aviator       | dike          | jewel      | nylon                     |
| ballet        | distance      | justice    | offshore                  |
| barbarian     | embassy       | kerosene   | parliament                |
| barge         | exporter      | laboratory | pastor                    |
| battleship    | federal       | lawyer     | petroleum                 |
| bay           | fertile       | librarian  | platinum                  |
| blizzard      | flax          | livestock  | politics                  |
| brass         | flood         | lumberjack | pony express              |
| bronze        | foreigner     | mayor      | population                |
| builder       | fortress      | merchant   | preacher                  |
| bantaloupe    | friar         | metropolis | prime minister            |
| carver        | gale          | microscope | prospector                |
| cattle        | gap           | midday     | radar                     |
| census        | gems          | midmorning |                           |

TABLE XI (continued)

WORDS IN THE FINAL FORMS OF EARLEY  
SOCIAL STUDIES VOCABULARY TEST

## FORM I

|                          |                 |                                |               |
|--------------------------|-----------------|--------------------------------|---------------|
| radium                   | traitor         | canal                          | dunes         |
| raft                     | transportation  | caribou                        | elect         |
| rapids                   | treaty of peace | chromite                       | election      |
| rebel                    | tribe           | civil service                  | emerald       |
| refugee                  | trolley car     | cliff                          | emperor       |
| reservation              | truck           | cobbler                        | empire        |
| reservoir                | upstream        | congressman                    | fleet         |
| sapphire                 | walrus          | constitution                   | fodder        |
| schooner                 | weaver          | convention                     | fog           |
| seconds                  | FORM II         | council                        | forester      |
| secretary of<br>the navy | agreement       | councilor                      | fortification |
| secretary of<br>war      | alfalfa         | cove                           | frontiersman  |
| senator                  | ancestor        | crops                          | gorge         |
| shipper                  | antarctic       | crusader                       | governor      |
| slope                    | apricot         | daily                          | granite       |
| statesman                | architect       | declaration<br>of independence | graphite      |
| stream                   | armistice       | degree                         | grocer        |
| supreme court            | attorney        | delegate                       | gulch         |
| taxation                 | banker          | democracy                      | historian     |
| telescope                | barley          | desert                         | indigo        |
| temple                   | bill            | diplomat                       | inlet         |
| term of office           | blockhouse      | downriver                      | international |
| topsoil                  | boundary        | drought                        | invader       |
|                          | buckwheat       |                                | isthmus       |

TABLE XI(continued)

WORDS IN THE FINAL FORMS OF EARLEY  
SOCIAL STUDIES VOCABULARY TEST

## FORM II

|              |               |                  |
|--------------|---------------|------------------|
| judge        | parallels     | temperature      |
| juror        | peak          | territory        |
| jury         | peddler       | textiles         |
| kayak        | phosphate     | tide             |
| lagoon       | physician     | timber           |
| legislature  | postmaster    | tourist          |
| levee        | poultry       | trapper          |
| livestock    | prehistoric   | trial            |
| llamas       | prince        | tributary        |
| locomotive   | quarry        | troops           |
| longitude    | rayon         | tropic of cancer |
| magnesium    | rebellion     | vice-president   |
| mainland     | refinery      | voyager          |
| mosa         | revolutionist | warrior          |
| midafternoon | ricksha       | wharf            |
| midsummer    | shore         | worker           |
| militaristic | silversmith   | zone             |
| militia      | slect         |                  |
| minerals     | stagocoach    |                  |
| ministry     | strait        |                  |
| musician     | suburb        |                  |
| opal         | surf          |                  |
| otter        | surveyor      |                  |

The evidence seems to show that children's misconceptions were caused by (1) unfamiliarity with the words as indicated by the large number of omissions and cross-outs, (2) guessing, (3) wrong association of ideas, (4) reading errors in configuration or perception, and (5) connotation of words. Cross-outs are those words which did not fit in any category. The child was directed to cross these out.

Each successive grade shows a greater number of correct responses and a correspondingly decreasing number of omissions and cross-outs indicating a growth in understanding of vocabulary concepts. This is evidenced in the total number of words of both forms not known by 50 per cent or more of the children. In the fourth grade, 174 words were not known to 50 per cent or more of the children, 84 in the fifth grade, and 49 in the sixth grade. These words are listed in Table XII.

TABLE XII

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF  
THE CHILDREN IN EACH GRADE

FORM I WORDS

| Words         | Grade |   |   | Words         | Grade |   |   |
|---------------|-------|---|---|---------------|-------|---|---|
|               | 4     | 5 | 6 |               | 4     | 5 | 6 |
| admiral       | x     |   |   | cattle        |       |   |   |
| alps          | x     |   |   | census        | x     | x | x |
| aluminum      | x     |   |   | century       |       |   |   |
| ambassador    | x     | x |   | chemist       | x     |   |   |
| amethyst      | x     | x | x | cherries      |       |   |   |
| archaeologist | x     |   |   | cobbler       | x     |   |   |
| archbishop    |       |   |   | commander     | x     |   |   |
| artist        | x     |   |   | coppersmith   | x     | x |   |
| astronomer    | x     |   |   | covered wagon |       |   |   |
| aviator       | x     |   |   | crest         | x     | x | x |
| ballot        | x     | x |   | cultivate     | x     |   |   |
| barbarian     | x     | x |   | dike          |       |   |   |
| barge         | x     |   |   | distance      |       |   |   |
| battleship    |       |   |   | embassy       | x     | x | x |
| bay           |       |   |   | exporter      | x     | x |   |
| blizzard      |       |   |   | federal       | x     |   |   |
| brass         |       |   |   | fertile       | x     |   |   |
| bronze        | x     | x |   | flax          | x     | x |   |
| builder       | x     |   |   | flood         |       |   |   |
| cantaloupe    |       |   |   | foreigner     | x     |   |   |
| carver        | x     | x |   | fortress      | x     | x | x |

TABLE XII (continued)

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF THE CHILDREN IN EACH GRADE

FORM I WORDS

| Words      | Grade |   |   | Words                     | Grade |   |   |
|------------|-------|---|---|---------------------------|-------|---|---|
|            | 4     | 5 | 6 |                           | 4     | 5 | 6 |
| friar      | x     | x | x | merchant                  | x     |   |   |
| gale       | x     | x |   | metropolis                | x     | x | x |
| gap        | x     | x |   | microscope                | x     |   |   |
| gems       | x     |   |   | midday                    |       |   |   |
| geyser     | x     | x | x | midmorning                |       |   |   |
| goldsmith  | x     |   |   | military forces           |       |   |   |
| harvest    |       |   |   | mink                      |       |   |   |
| hemisphere | x     | x | x | moisture                  | x     |   |   |
| herder     | x     | x |   | moose                     |       |   |   |
| hogs       |       |   |   | nation                    | x     |   |   |
| ice floe   |       |   |   | navigable                 | x     | x | x |
| inland     | x     |   |   | navigation                | x     | x |   |
| invade     | x     | x |   | navigator<br>(2 concepts) | x     | x | x |
| jewel      |       |   |   | nitrogen                  | x     | x | x |
| justice    |       |   |   | nylon                     |       |   |   |
| kerosene   | x     | x | x | offshore                  | x     | x |   |
| laboratory | x     |   |   | parliament                | x     | x |   |
| lawyer     | x     |   |   | pastor                    | x     | x |   |
| librarian  | x     | x |   | petroleum                 | x     |   |   |
| livestock  |       |   |   | platinum                  | x     |   |   |
| lumberjack | x     |   |   | politics                  | x     |   |   |
| mayor      |       |   |   | pony express              |       |   |   |

TABLE XII(continued)

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF  
THE CHILDREN IN EACH GRADE

| Word              | FORM I WORDS |   |   | Word            | FORM II WORDS |   |   |
|-------------------|--------------|---|---|-----------------|---------------|---|---|
|                   | 4            | 5 | 6 |                 | 4             | 5 | 6 |
| population        | x            |   |   | supreme court   |               |   |   |
| preacher          |              |   |   | taxation        | x             |   |   |
| prime minister    |              |   |   | telescope       |               |   |   |
| prospector        | x            |   |   | temple          |               |   |   |
| radar             | x            | x |   | term of office  |               |   |   |
| radium            | x            |   | x | topsoil         |               |   |   |
| raft              |              |   |   | traitor         | x             |   |   |
| rapids            | x            |   |   | transportation  |               |   |   |
| rebel             | x            | x |   | treaty of peace | x             |   |   |
| refugee           | x            | x | x | tribe           |               |   |   |
| reservation       | x            | x | x | trolley car     |               |   |   |
| reservoir         | x            | x |   | truck           |               |   |   |
| sapphire          | x            | x |   | upstream        | x             | x |   |
| schooner          | x            |   |   | walrus          | x             |   |   |
| seconds           |              |   |   | weaver          | x             |   |   |
| secretary of navy |              |   |   | FORM II WORDS   |               |   |   |
| secretary of war  |              |   |   | agreement       | x             |   |   |
| senator           |              |   |   | alfalfa         | x             |   | x |
| shipper           | x            |   |   | ancestor        | x             |   |   |
| slope             |              |   |   | antartic        | x             | x |   |
| statesman         |              |   |   | apricot         |               |   |   |
| stream            |              |   |   | architect       | x             | x |   |

TABLE XII(continued)

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF  
THE CHILDREN IN EACH GRADE

| FORM II WORDS |       |   |   |                             |       |   |   |
|---------------|-------|---|---|-----------------------------|-------|---|---|
| Word          | Grade |   |   | Word                        | Grade |   |   |
|               | 4     | 5 | 6 |                             | 4     | 5 | 6 |
| armistice     | x     | x |   | daily                       |       |   |   |
| attorney      | x     | x |   | declaration of independence | x     |   |   |
| banker        | x     |   |   | degree                      | x     | x | x |
| barley        |       |   |   | delegate                    | x     |   |   |
| bill          | x     |   |   | democracy                   | x     |   |   |
| blockhouse    | x     | x | x | desert                      |       |   |   |
| boundary      | x     |   |   | diplomat                    | x     | x | x |
| buckwheat     |       |   |   | downriver                   | x     |   |   |
| canal         |       |   |   | drought                     | x     |   |   |
| caribou       | x     | x | x | dunes                       | x     | x | x |
| chromite      | x     | x | x | elect                       | x     |   |   |
| civil service | x     | x |   | election                    | x     |   |   |
| cliff         |       |   |   | emerald                     | x     |   |   |
| cobbler       | x     |   |   | emperor                     | x     | x |   |
| congressman   |       |   |   | empire                      |       |   |   |
| constitution  | x     |   |   | fleet                       | x     |   |   |
| convention    | x     | x | x | fodder                      | x     | x | x |
| council       |       |   |   | fog                         |       |   |   |
| councilor     | x     | x | x | forester                    | x     | x | x |
| cove          | x     | x | x | fortification               | x     | x | x |
| crops         |       |   |   | frontiersman                | x     | x | x |
| crusader      | x     |   |   | gorge                       | x     |   |   |

TABLE XII(continued)

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF THE CHILDREN IN EACH GRADE

| Word          | FORM II WORDS |   |   | Word         | Grade |   |   |
|---------------|---------------|---|---|--------------|-------|---|---|
|               | 4             | 5 | 6 |              | 4     | 5 | 6 |
| governor      |               |   |   | magnesium    | x     | x |   |
| granite       | x             |   |   | mainland     |       |   |   |
| graphite      | x             | x |   | mesa         | x     | x | x |
| grocer        | x             |   |   | midafternoon | x     |   |   |
| gulch         | x             | x | x | midsummer    |       |   |   |
| historian     | x             | x | x | militaristic | x     | x | x |
| indigo        | x             | x | x | militia      | x     | x | x |
| inlet         | x             | x |   | minerals     | x     |   |   |
| international |               |   |   | ministry     | x     |   |   |
| invader       | x             | x |   | musician     | x     |   |   |
| isthmus       | x             | x | x | opal         | x     | x |   |
| judge         |               |   |   | otter        | x     |   |   |
| juror         | x             | x | x | parallels    | x     |   | x |
| jury          |               |   |   | peak         | x     |   |   |
| kayak         | x             |   |   | peddler      | x     |   |   |
| lagoon        | x             | x | x | phosphate    | x     | x | x |
| legislator    | x             | x |   | physician    | x     | x | x |
| levee         | x             |   | x | postmaster   |       |   |   |
| livestock     | x             |   |   | poultry      | x     |   |   |
| llamas        | x             | x |   | prehistoric  | x     | x | x |
| locomotive    | x             |   |   | prince       | x     | x |   |
| longitude     | x             | x | x | quarry       | x     | x |   |

TABLE XII(continued)

WORDS NOT KNOWN BY 50 PER CENT OR MORE OF  
THE CHILDREN IN EACH GRADE

| Word          | FORM II WORDS |         |         | Word             | FORM II WORDS |         |         |
|---------------|---------------|---------|---------|------------------|---------------|---------|---------|
|               | Grade 4       | Grade 5 | Grade 6 |                  | Grade 4       | Grade 5 | Grade 6 |
| rayon         | x             |         |         | troops           |               |         |         |
| rebellion     | x             | x       |         | tropic of cancer | x             |         |         |
| refinery      | x             |         |         | vice-president   |               |         |         |
| revolutionist | x             |         |         | voyager          | x             |         |         |
| ricksha       | x             | x       | x       | warrior          |               |         |         |
| shore         | x             |         |         | wharf            | x             |         |         |
| silversmith   | x             |         |         | worker           |               |         |         |
| sleet         |               |         |         | zone             | x             |         |         |
| stagecoach    |               |         |         |                  |               |         |         |
| strait        | x             |         |         |                  |               |         |         |
| suburb        | x             | x       | x       |                  |               |         |         |
| surf          | x             |         |         |                  |               |         |         |
| surveyor      | x             | x       |         |                  |               |         |         |
| temperature   |               |         |         |                  |               |         |         |
| territory     | x             |         |         |                  |               |         |         |
| textiles      | x             |         |         |                  |               |         |         |
| tide          |               |         |         |                  |               |         |         |
| timber        | x             | x       | x       |                  |               |         |         |
| tourist       | x             | x       |         |                  |               |         |         |
| trapper       | x             |         |         |                  |               |         |         |
| trial         | x             |         |         |                  |               |         |         |
| tributary     | x             | x       |         |                  |               |         |         |

Out of 250 words, approximately one third were responded to incorrectly due to misconceptions caused by the wrong association of ideas.

To illustrate these misconceptions due to wrong associations of ideas, a sampling of items has been extracted from each form and arranged to show the word tested, the correct category, and the category of wrong associations. Only those items of wrong association were chosen which came next highest in number of responses to Omissions and Cross-outs.

TABLE XIII  
MISCONCEPTIONS DUE TO WRONG ASSOCIATIONS

## FORM I WORDS

| <u>Words Tested</u> | <u>Correct Category</u>      | <u>Category of Wrong Association</u>  |
|---------------------|------------------------------|---------------------------------------|
| admiral             | War and Warfare              | Water Travel<br>Trade and Trading     |
| archbishop          | Church and Religion          | Government                            |
| ballot              | Government                   | People                                |
| barbarian           | People                       | Church and Religion                   |
| carver              | Occupations                  | Kind and Shape of Land                |
| census              | Government                   | People<br>Church and Religion         |
| century             | Length of Time               | Places People Live                    |
| cobbler             | Occupations                  | Groups of People                      |
| commander           | War and Warfare              | Size and Area of<br>Government Region |
| cultivate           | Farms and Farming            | Size and Measure of Land              |
| distance            | Size and Measures<br>of Land | Water Travel                          |
| exporter            | Trade and Trading            | Science and Scientists                |
| geyser              | Water and Water Bodies       | Soil and Rock                         |
| goldsmith           | Occupations                  | Groups of People                      |
| justice             | Government                   | Church and Religion                   |
| merchant            | Trade and Trading            | Science and Scientists                |
| metropolis          | Places People Live           | People                                |
| population          | Groups of People             | Size or Area of<br>Government Region  |
| radium              | Metals                       | Farms and Farming                     |
| rebel               | War and Warfare              | Groups of People                      |

TABLE XIII(continued)

MISCONCEPTIONS DUE TO WRONG ASSOCIATIONS

FORM I WORDS

| <u>Words Tested</u> | <u>Correct Category</u> | <u>Category of Wrong Association</u>              |
|---------------------|-------------------------|---|
| refugee             | People                  | Places People Live                                |
| taxation            | Government              | Farms and Farming<br>Size and Measures of<br>Land |
| telescope           | Science and Scientists  | War and Warfare                                   |

FORM II WORDS

|               |                                 |                     |
|---------------|---------------------------------|---------------------|
| agreement     | Rules and Laws in<br>Government | People              |
| architect     | Occupations                     | Groups of People    |
| boundary      | Size & Measure of Land          | Government          |
| convention    | People In Government            | Land Travel         |
| councilor     | People in Government            | War and Warfare     |
| delegato      | People in Government            | War and Warfare     |
| diplomat      | People in Government            | Trade and Trading   |
| drought       | Weather                         | Products of Nature  |
| election      | Government                      | People              |
| fleet         | War and Warfare                 | Animals             |
| forester      | Occupations                     | Groups of People    |
| gorge         | Kind & Shape of Land            | Products of Nature  |
| grocer        | Occupations                     | Groups of People    |
| historian     | Occupations                     | War and Warfare     |
| international | Government                      | Trade and Trading   |
| inventor      | People                          | Government          |
| lagoon        | Water and Water Bodies          | Land and Land Areas |

TABLE XIII(continued)

MISCONCEPTIONS DUE TO WRONG ASSOCIATIONS

FORM II WORDS

| <u>Words Tested</u> | <u>Correct Category</u> | <u>Category of Wrong Association</u> |
|---------------------|-------------------------|--------------------------------------|
| livestock           | Animals                 | Products of Nature                   |
| mainland            | Land and Land Areas     | Government                           |
| minerals            | Products of Nature      | Kind and Shape of Land               |
| ministry            | Church and Religion     | Government                           |
| musicians           | Occupations             | Groups of People                     |
| otter               | Animals                 | Trade and Trading                    |
| rayon               | Manufactured Goods      | Inventions                           |
| refinery            | Manufactured Goods      | War and Warfare                      |
| shore               | Water and Water Bodies  | Land Travel                          |
| strait              | Water and Water Bodies  | Land and Land Areas                  |
| surveyor            | Occupations             | Size or Area of Government Regions   |
| tourist             | People                  | Places People Live                   |
| warrior             | War and Warfare         | Groups of People                     |

Misconceptions due to reading errors through faulty visual or auditory perception and configuration were few in number as compared to misconceptions influenced by the wrong association of ideas.

Items from both forms of the test were extracted to illustrate apparent reading errors.

TABLE XIV  
MISCONCEPTIONS DUE TO READING ERRORS  
OF PERCEPTION OR CONFIGURATION

| <u>Test Item</u> | <u>Correct Category</u>            | <u>Probable Reading Error</u> | <u>Chosen Category</u> |
|------------------|------------------------------------|-------------------------------|------------------------|
| crusader         | People                             | cruiser                       | Water and Water Bodies |
| dike             | Water and Water Bodies             | duke                          | People in Government   |
| empire           | Size or Area of Government Regions | umpire                        | Occupations            |
| flax             | Products of Nature                 | flak                          | War and Warfare        |
| pastor           | Church and Religion                | pasture                       | Land and Land Areas    |
| petroleum        | Products of Nature                 | patrolmen                     | People in Government   |
| ricksha          | Land Travel                        | rich                          | Groups of People       |
| suburb           | Places People Live                 | submerge                      | Water and Water Bodies |
| surf             | Water and Water Bodies             | serf                          | People                 |
| trial            | Government                         | trail                         | Water Travel           |
| weaver           | Occupations                        | beaver                        | Animals                |

In an inspectional analysis of the grade results of responses to all categories, it was evident that many misconceptions were due to the connotation of some words in relation to subject matter taught in a specific grade. The emphasis on certain phases of subject matter thus could have resulted in a tendency to retain a particular meaning for certain words.

TABLE XV

MISCONCEPTIONS DUE TO ERRORS IN CONNOTATION

| <u>Test Item</u> | <u>Correct Category</u> | <u>Error in Connotation</u>         | <u>Chosen Category</u>            |
|------------------|-------------------------|-------------------------------------|-----------------------------------|
| artist           | Occupations             | An artist creates                   | Inventions                        |
| coppersmith      | Occupations             | Articles are made of copper         | Manufactured Goods                |
| fleet            | War and Warfare         | Characteristic of animals           | Animals                           |
| gale             | Weather                 | Produced by Nature                  | Products of Nature                |
| gap              | Weather                 | Produced by Nature                  | Products of Nature                |
| international    | Government              | Exchange of goods between countries | Trade and Trading                 |
| moisture         | Weather                 | Produced by Nature                  | Products of Nature                |
| otter            | Animals                 | Early fur traders                   | Trade and Trading                 |
| postmaster       | Occupations             | A postmaster is a government agent  | Size or Area of Government Region |
| prehistoric      | Length of Time          | Prehistoric Man                     | Groups of People                  |
| quarry           | Soil and Rocks          | Hunted Animals                      | Animals                           |
| surf             | Water and Water Bodies  | Middle Ages figure-serf             | People                            |

In order to determine which areas of vocabulary were least known, a listing was made by categories of all words that were not **known by** 25 per cent or more of the children of each grade. This analysis showed that there were one hundred forty-four of these out of the two hundred and fifty in both test forms. While only one category was completed perfectly, that being the category Fruit in the fifth grade, children seemed to have a good understanding of words of Government, words specifying Length of Time, terms about Farms and Farming, Church and Religion, Animals, Water and Water Bodies, and in the sixth grade Occupations.

Categories that showed up poorly were those having to do with transportation, Water Travel, Air Travel, and Land Travel. It seemed strange, that with all the interest boys and girls of today show in air-planes, no grade had these words correct. A weakness was apparent in vocabulary having to do with Products of Nature, Metals, Directions of Places, Trade and Trading, and Size and Measures of Land.

Below is a table that summarizes the findings of words of the least known categories.

TABLE XVI

WORDS NOT KNOWN BY 25 PER CENT OR MORE OF THE GRADE  
GROUP IN BOTH FORMS CLASSIFIED BY CATEGORIES

| Categories Tested           | Grades |   |   | Categories Tested     | Grades |   |   |
|-----------------------------|--------|---|---|-----------------------|--------|---|---|
|                             | 4      | 5 | 6 |                       | 4      | 5 | 6 |
| <u>Church and Religion</u>  |        |   |   | 11. secretary of war  | x      | x |   |
| 1. ministry                 | x      | x |   | 12. senator           | x      |   |   |
| 2. temple                   | x      |   |   | 13. secretary of navy | x      |   |   |
| 3. archbishop               | x      | x |   | 14. parliament        | x      | x | x |
| 4. preacher                 | x      |   |   | 15. embassy           | x      | x | x |
| 5. pastor                   | x      | x |   | 16. supreme court     | x      | x | x |
| 6. friar                    | x      | x | x | 17. diplomat          | x      | x | x |
| <u>Length of Time</u>       |        |   |   | 18. councilor         | x      | x | x |
| 1. midsummer                | x      |   | x | 19. civil service     | x      | x | x |
| 2. daily                    | x      | x |   | 20. legislature       | x      | x | x |
| 3. midafternoon             | x      |   |   | 21. convention        | x      | x | x |
| 4. midday                   | x      |   |   | 22. juror             | x      | x | x |
| 5. century                  | x      |   |   | 23. delegate          | x      | x | x |
| 6. midmorning               | x      |   |   | 26. emperor           | x      | x | x |
| 7. seconds                  | x      |   |   | <u>Government</u>     |        |   |   |
| 8. prehistoric              | x      | x | x | 1. election           | x      | x |   |
| <u>Farms and Farming</u>    |        |   |   | 2. democracy          | x      | x |   |
| 1. barley                   | x      |   |   | 3. taxation           | x      |   | x |
| 2. crops                    | x      |   |   | 4. politics           | x      |   |   |
| 3. buckwheat                | x      | x |   | 5. federal            | x      |   | x |
| 4. cattle                   |        |   |   | 6. census             | x      | x | x |
| 5. livestock                | x      |   |   | 7. term of office     | x      |   |   |
| 6. harvest                  | x      |   |   | 8. justice            | x      | x |   |
| 7. cultivate                | x      | x | x | 9. ballot             | x      | x | x |
| 8. fodder                   | x      | x | x | 10. international     | x      | x | x |
| 9. alfalfa                  | x      | x | x | 11. trial             | x      | x | x |
| 10. poultry                 | x      | x | x | 12. elect             | x      | x | x |
| <u>People in Government</u> |        |   |   | <u>Animals</u>        |        |   |   |
| 1. congressman              | x      |   |   | 1. livestock          | x      | x |   |
| 2. vice-president           | x      |   |   | 2. moose              |        |   |   |
| 3. governor                 |        |   |   | 3. hogs               |        |   |   |
| 4. jury                     | x      | x |   | 4. mink               | x      |   |   |
| 5. council                  | x      | x |   | 5. walrus             | x      | x | x |
| 6. judge                    | x      |   |   | 6. otter              | x      | x | x |
| 7. mayor                    | x      |   |   | 7. caribou            | x      | x | x |
| 8. statesman                |        |   |   | 8. llamas             | x      | x | x |
| 9. ambassador               | x      | x |   |                       |        |   |   |
| 10. prime minister          | x      | x |   |                       |        |   |   |

TABLE XVI(continued)

WORDS NOT KNOWN BY 25 PER CENT OR MORE OF THE GRADE  
GROUP IN BOTH FORMS CLASSIFIED BY CATEGORIES

| Categories Tested             | Grades      |   |   | Categories Tested             | Grades               |         |   |   |
|-------------------------------|-------------|---|---|-------------------------------|----------------------|---------|---|---|
|                               | 4           | 5 | 6 |                               | 4                    | 5       | 6 |   |
| <u>Water and Water Bodies</u> |             |   |   | 20.                           | cobbler              | x       | x | x |
| 1.                            | shore       | x |   | 21.                           | attorney             | x       | x | x |
| 2.                            | tide        | x |   | 22.                           | architect            | x       | x | x |
| 3.                            | wharf       | x |   | 23.                           | musician             | x       | x | x |
| 4.                            | canal       | x |   | 24.                           | grocer               | x       | x | x |
| 5.                            | flood       | x |   | 25.                           | forester             | x       | x | x |
| 6.                            | rapids      | x |   | 26.                           | lawyer               | x       | x | x |
| 7.                            | dike        | x | x | <u>Kind and Shape of Land</u> |                      |         |   |   |
| 8.                            | stream      |   |   | 1.                            | cliff                | x       |   |   |
| 9.                            | ice floe    | x | x | 2.                            | peak                 | x       |   |   |
| 10.                           | navigable   | x | x | x                             | 3.                   | alps    |   |   |
| 11.                           | geysor      | x | x | x                             | 4.                   | slope   |   |   |
| 12.                           | bay         | x | x | x                             | 5.                   | orest   | x | x |
| 13.                           | reservoir   | x | x | x                             | 6.                   | gap     | x | x |
| 14.                           | lagoon      | x | x | x                             | 7.                   | mesa    | x | x |
| 15.                           | inlot       | x | x | x                             | 8.                   | desert  | x | x |
| 16.                           | strait      | x | x | x                             | 9.                   | gorge   | x | x |
| 17.                           | tributary   | x | x | x                             | 10.                  | gulch   | x | x |
| 18.                           | cove        | x | x | x                             | 11.                  | dunos   | x | x |
| 19.                           | surf        | x | x | x                             | 12.                  | isthmus | x | x |
| 20.                           | levee       | x | x | x                             | <u>Soil and Rock</u> |         |   |   |
| <u>Occupations</u>            |             |   |   | 1.                            | granite              | x       | x |   |
| 1.                            | banker      | x | x | 2.                            | top soil             | x       |   |   |
| 2.                            | postmaster  | x | x | 3.                            | fertile              | x       |   |   |
| 3.                            | trapper     | x | x | 4.                            | phosphate            | x       | x | x |
| 4.                            | peddler     | x | x | 5.                            | graphite             | x       | x | x |
| 5.                            | silversmith | x | x | 6.                            | quarry               | x       | x | x |
| 6.                            | cobbler     | x |   | x                             | <u>Land Travel</u>   |         |   |   |
| 7.                            | goldsmith   | x | x | 1.                            | stagecoach           | x       |   |   |
| 8.                            | artist      | x | x | 2.                            | covered wagon        |         |   |   |
| 9.                            | carver      | x | x | 3.                            | trolley car          | x       |   |   |
| 10.                           | builder     | x | x | 4.                            | pony express         | x       | x | x |
| 11.                           | lumberjack  | x | x | 5.                            | truck                | x       | x | x |
| 12.                           | weaver      | x | x | 6.                            | transportation       | x       | x | x |
| 13.                           | prospector  | x | x | 7.                            | locomotive           | x       | x | x |
| 14.                           | shipper     | x | x | x                             | 8.                   | ricksha | x | x |
| 15.                           | coppersmith | x | x | x                             |                      |         |   |   |
| 16.                           | librarian   | x | x | x                             |                      |         |   |   |
| 17.                           | herder      | x | x | x                             |                      |         |   |   |
| 18.                           | historian   | x | x | x                             |                      |         |   |   |
| 19.                           | surveyor    | x | x | x                             |                      |         |   |   |

TABLE XVI (continued)

WORDS NOT KNOWN BY 25 PER CENT OR MORE OF THE GRADE  
GROUP IN BOTH FORMS  
CLASSIFIED BY CATEGORIES

| Categories Tested               | Grades |   |   | Categories Tested       | Grades |   |   |
|---------------------------------|--------|---|---|-------------------------|--------|---|---|
|                                 | 4      | 5 | 6 |                         | 4      | 5 | 6 |
| <u>War and Warfare</u>          |        |   |   | <u>Water Travel</u>     |        |   |   |
| 1. troops                       | x      |   |   | 1. barge                | x      |   | x |
| 2. battleship                   | x      |   |   | 2. raft                 | x      |   |   |
| 3. military forces              | x      | x |   | 3. navigator            | x      | x | x |
| 4. treaty of peace              | x      |   |   | 4. schooner             | x      | x | x |
| 5. admiral                      | x      |   | x | 5. navigation           | x      | x | x |
| 6. rebel                        | x      | x | x | 6. kayak                | x      | x | x |
| 7. fortress                     | x      | x | x | <u>Precious Stones</u>  |        |   |   |
| 8. commander                    | x      | x | x | 1. emerald              | x      | x |   |
| 9. invade                       | x      | x | x | 2. gems                 | x      | x |   |
| 10. invader                     | x      | x | x | 3. jewels               | x      |   |   |
| 11. revolutionist               | x      | x | x | 4. amethyst             | x      | x | x |
| 12. rebellion                   | x      | x | x | 5. sapphire             | x      | x | x |
| 13. fortification               | x      | x | x | 6. opal                 | x      | x | x |
| 14. blockhouse                  | x      | x | x | <u>People</u>           |        |   |   |
| 15. warrior                     | x      | x | x | 1. prince               | x      |   |   |
| 16. armistice                   | x      | x | x | 2. tourist              | x      | x |   |
| 17. militaristic                | x      | x | x | 3. worker               | x      |   |   |
| 18. fleet                       | x      | x | x | 4. ancestor             | x      |   |   |
| 19. militia                     | x      | x | x | 5. foreigner            | x      |   |   |
| <u>Science &amp; Scientists</u> |        |   |   | 6. barbarian            | x      | x | x |
| 1. chemist                      | x      |   |   | 7. traitor              | x      | x | x |
| 2. microscope                   | x      |   | x | 8. refugee              | x      | x | x |
| 3. laboratory                   | x      |   |   | 9. voyager              | x      | x | x |
| 4. astronomer                   | x      | x | x | 10. frontiersman        | x      | x | x |
| 5. archaeologist                | x      | x | x | 11. crusader            | x      | x | x |
| 6. telescope                    | x      | x | x | 12. inventor            | x      | x | x |
| 7. physician                    | x      | x | x | <u>Groups of People</u> |        |   |   |
| <u>Fruit</u>                    |        |   |   | 1. tribe                |        |   |   |
| 1. apricot                      | x      |   | x | 2. population           | x      | x | x |
| 2. cantaloupe                   | x      |   | x |                         |        |   |   |
| 3. cherries                     | x      |   |   |                         |        |   |   |

TABLE XVI (continued)

WORDS NOT KNOWN BY 25 PER CENT OR MORE OF THE GRADE  
GROUP IN BOTH FORMS  
CLASSIFIED BY CATEGORIES

| Categories Tested                   | Grades |   |   | Categories Tested                         | Grades |   |   |
|-------------------------------------|--------|---|---|---|--------|---|---|
|                                     | 4      | 5 | 6 |   | 4      | 5 | 6 |
| <u>Weather</u>                      |        |   |   | <u>Land and Land Areas</u>                |        |   |   |
| 1. temperature                      | x      |   |   | 1. mainland                               | x      |   |   |
| 2. fog                              | x      |   |   | 2. antarctic                              | x      | x | x |
| 3. blizzard                         | x      |   |   | <u>Metals</u>                             |        |   |   |
| 4. moisture                         | x      | x | x | 1. aluminum                               | x      | x |   |
| 5. gale                             | x      | x | x | 2. bronze                                 | x      | x | x |
| 6. sleet                            | x      | x | x | 3. radium                                 | x      | x | x |
| 7. drought                          | x      | x | x | 4. platinum                               | x      | x | x |
| <u>Manufactured Goods</u>           |        |   |   | 5. brass                                  | x      | x | x |
| 1. rayon                            | x      |   |   | 6. chromite                               | x      | x | x |
| 2. textiles                         | x      |   |   | 7. magnesium                              | x      | x | x |
| 3. nylon                            | x      |   |   | <u>Air Travel</u>                         |        |   |   |
| 4. kerosene                         | x      | x | x | 1. aviator                                | x      | x | x |
| 5. refinery                         | x      | x | x | 2. navigator                              | x      | x | x |
| <u>Places People Live</u>           |        |   |   | <u>Directions of Places</u>               |        |   |   |
| 1. village                          | x      |   |   | 1. offshore                               | x      | x | x |
| 2. metropolis                       | x      | x | x | 2. upstream                               | x      | x | x |
| 3. reservation                      | x      | x | x | 3. inland                                 | x      | x | x |
| 4. suburb                           | x      | x | x | 4. downriver                              | x      | x | x |
| <u>Size and Measures of Land</u>    |        |   |   | <u>Trade and Trading</u>                  |        |   |   |
| 1. boundary                         | x      |   | x | 1. merchant                               | x      | x | x |
| 2. distance                         | x      |   | x | 2. exporter                               | x      | x | x |
| 3. hemisphere                       | x      | x | x | <u>Size and Area in Government Region</u> |        |   |   |
| 4. longitude                        | x      | x | x | 1. nation                                 | x      | x | x |
| 5. zone                             | x      | x | x | 2. empire                                 | x      | x | x |
| 6. tropic of<br>cancer              | x      | x | x | 3. territory                              | x      | x | x |
| 7. parallels                        | x      | x | x | <u>Rules and Laws in Government</u>       |        |   |   |
| 8. degree                           | x      | x | x | 1. declaration of<br>independence         | x      |   |   |
| <u>Rules and Laws in Government</u> |        |   |   | 2. constitution                           | x      | x | x |
| 1. declaration of<br>independence   | x      |   |   | 3. bill                                   | x      | x | x |
| 2. constitution                     | x      | x | x | 4. agreement                              | x      | x | x |
| 3. bill                             | x      | x | x |   |        |   |   |
| 4. agreement                        | x      | x | x |   |        |   |   |

TABLE XVI (continued)

WORDS NOT KNOWN BY 25 PER CENT OR MORE OF THE GRADE  
GROUP IN BOTH FORMS  
CLASSIFIED BY CATEGORIES

| Categories Tested         | Grades |   |   |
|---------------------------|--------|---|---|
|                           | 4      | 5 | 6 |
| <u>Products of Nature</u> |        |   |   |
| 1. petroleum              | x      | x | x |
| 2. nitrogen               | x      | x | x |
| 3. flax                   | x      | x | x |
| 4. indigo                 | x      | x | x |
| 5. timber                 | x      | x | x |
| 6. minerals               | x      | x | x |
| <u>Inventions</u>         |        |   |   |
| 1. radar                  | x      | x | x |

While sex differences are being treated in Chapter VI, this study will point out briefly several items of interest relative to the accomplishments and preferences of boys and girls. The girls of the fourth grade did better in vocabulary work than the boys, while the fifth grade boys greatly outstripped the girls. In the sixth grade, the boys showed better achievement than the girls but not to such an extent as is evident in the fifth grade. This difference could be accounted for by the abilities of the various groups taking the test, but it seems that part of it is due to the greater variety of subject matter appearing in fifth grade curriculums which is especially appealing to boys at this age level.

The figures below show the number of words correctly classified by the boys and girls of each grade and the number of words chosen by an approximately even number of boys and girls. A word was indicated as a boy's choice, and vice versa, if the total number of correct responses was 5 per cent or more greater than the girl's, while words were considered about evenly divided between boys and girls when the total number of correct responses showed less than 5 per cent difference.

TABLE XVII

WORDS CORRECTLY CHOSEN BY BOYS AND GIRLS OF EACH GRADE

| <u>Grade</u> | <u>Boys</u> | <u>Girls</u> | <u>Even</u> |
|--------------|-------------|--------------|-------------|
| 4            | 78          | 85           | 87          |
| 5            | 118         | 49           | 85          |
| 6            | 86          | 61           | 101         |

It is interesting to note that, in both forms of the test, the fourth grade girls did better than the girls of grades five and six.

An inspection of the kinds of words answered correctly by boys and girls showed that the boys did better on the more technical words, such as in the categories of Water Travel, Water and Water Bodies, War and Warfare, and Government, while the girls had a greater knowledge of words in categories to do more with the experiences of their everyday life, such as Fruit, Occupations, Precious Stones, and Weather.

The following list is a sample of the words whose total correct responses were 5 per cent or more in favor of the boys in all grades, and those whose correct responses were 5 per cent or more in favor of the girls in all the grades.

TABLE XVIII

TYPES OF WORDS CORRECTLY ANSWERED BY BOYS AND BY GIRLS

| <u>Boys</u>       | <u>Girls</u> |
|-------------------|--------------|
| armistice         | amethyst     |
| astronomer        | banker       |
| aviator           | blizzard     |
| barge             | cantaloupe   |
| blockhouse        | cherries     |
| chromite          | cobbler      |
| commander         | cultivate    |
| delegate          | desert       |
| embassy           | downriver    |
| emperor           | emerald      |
| fleet             | flood        |
| fortress          | librarian    |
| friar             | midday       |
| gulch             | musician     |
| inlet             | opal         |
| invader           | pastor       |
| kayak             | prince       |
| lagoon            | refugee      |
| militaristic      | tribe        |
| navigable         | truck        |
| navigation        |              |
| parallels         |              |
| parliament        |              |
| petroleum         |              |
| population        |              |
| rebellion         |              |
| schooner          |              |
| secretary of navy |              |
| textiles          |              |
| treaty of peace   |              |
| troops            |              |
| zone              |              |

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In conclusion, the results show growth in social studies vocabulary from grade to grade, but the progress from fourth to fifth is marked while the improvement from fifth to sixth is much less and in many items non-existent. In Form I particularly, there were many words in which the fifth grade had a higher percentage of correct answers, and a number of words in which their accomplishment was the same, indicating no marked growth from fifth to sixth grade.

While a definite interpretation is difficult to make from the statement given above, it appears that words which are presented in fourth and fifth grades are assumed to be learned and are not reviewed. Vocabulary should be presented through many and rich associations reviewed, and opportunities for continued use should be provided until each word is a definite part of the child's working and permanent vocabulary. Further possible explanation for the marked difference in achievement between grade four and five, and five and six might be that of poor retention and lack of application on the part of the pupils. Yet another reason could be that more emphasis is placed upon fixing information factually rather than in building broader social studies concepts through enriched vocabulary presentation.

The misconceptions caused by wrong association and connotations show that enough enrichment of vocabulary is not presented and that one concept of the word is stressed to the exclusion of the others. Emphasis is placed on the immediate use of the word with little enrichment evident.

It is also obvious that many simple social studies terms escape necessary development. When such words as "cove", "peddler", "mainland", "historian", and "forester", show poor achievement, it is evident that the

teacher has assumed an understanding of these words on the part of the pupils and fails to develop their meanings in clarifying or enriching social studies concepts.

It seems apparent that there is a tendency to substitute simple terms for the proper social studies vocabulary required in a subject when certain words such as "hemisphere", "navigator", and "reservation", which definitely appear in the social studies of fourth and fifth grades, are incorrectly answered by all grades.

As a number of errors were due to auditory and visual misconceptions, a more careful analysis of similarities and differences in social studies words should be presented to the children, as well as providing more opportunities for developing keener auditory and visual discrimination.

The problems in teaching social studies vocabulary appear to be similar to those in teaching reading vocabulary. Recognition of unknown or new words, careful analysis of words to insure correct visual recall, presentation of the words in a specific concept followed by enrichment of many associations, and repeated applications to fix the words as part of the pupil's permanent vocabulary are assential to the development of a sound basic vocabulary in Social Studies as well as in Reading. If these procedures and techniques, which are commonly accepted as part of the reading vocabulary programs, are applied to the teaching of social studies vocabulary, better results, no doubt, could be achieved.

## CHAPTER VI

## SEX DIFFERENCES IN SOCIAL STUDIES VOCABULARY

The phase of the study considered in this chapter makes a comparison between boys and girls in their achievements on social studies vocabulary tests in grades IV, V, and VI. The data used were the scores on the ten experimental and the four balanced forms of the Earley and Wolffer Social Studies Vocabulary Tests. The scores on the experimental forms were taken from the actual tests papers of 6,013 pupils from the previous Wolffer and Earley studies done in 1951-52.

The scores were tabulated separately according to sex and form for each grade level. Upon classification of the data, tables were constructed to show the critical ratios between boys and girls, by forms, at each of the three grade levels. These critical ratios were then analyzed to determine whether any significant differences existed between the performance of boys and girls.

The scores on the Wolffer and Earley balanced forms were obtained from tests administered to 1308 pupils in Community I and 865 pupils in Community R in February, 1953, in grades IV, V, and VI.

It was necessary to choose a method of comparison which would show the differences and whether or not the differences were due to chance or represented a significant difference.

The statistical meaningful way in which to describe the difference between two unselected groups is to determine the critical ratio from the difference of the means. This ratio may be expressed by the

formula:

$$GR = \frac{M_1 - M_2}{SE \text{ Diff}} \sqrt{\frac{M_1}{n_1} + \frac{M_2}{n_2}}$$

James E. Wert<sup>1</sup> makes the following statement concerning the interpretation of the critical ratio:

"In many cases a comparison is desired of the means of two samples from a given population. For example, a first sample may give a mean value of 72 and a second sample a mean value of 74. A difference of two points is noticed between these means. The difference between two means will fluctuate in successive samples, and, consequently, the difference of two means has a standard error of its own, called the standard error of a difference between two means. When the difference between these two means is divided by the standard error of that difference, a ratio is found which is sometimes called the critical ratio. Whenever this ratio is unity, the chances are 68 in 100 that the difference is too great to be the result of sampling fluctuations; whenever this ratio is two, the chances are 95 out of 100 that the difference is too great to be the result of sampling fluctuations; and, whenever the ratio is three or more, it is a practical certainty that the difference is too great to be the result of sampling fluctuations. Whenever it is a practical certainty that the difference is too great to be attributed to the fluctuations of sampling, the difference is called significant."

Critical ratios between boys and girls on the experimental forms of the Earley and Wolffer tests are shown in the series of tables, Table XIX through Table XXX.

<sup>1</sup> James E. Wert, Educational Statistics, (New York and London: McGraw-Hill Book Company, Inc., 1938) p. 145.

TABLE XIX

CRITICAL RATIOS ON SEX DIFFERENCES ON THE EARLEY EXPERIMENTAL TEST IN GRADE IV

| Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE Diff. | CR   | Favor<br>of |
|-----|------|-----|-------|-------|---------|-------|----------|------|-------------|
| B   | A    | 99  | 36.67 | 19.95 | 2       |       |          |      |             |
| G   | A    | 107 | 40.76 | 20.65 | 1.9     | 4.09  | 2.76     | 1.48 | Girls       |
| B   | B    | 107 | 39.15 | 21.35 | 2.05    | 2.07  | 2.61     | .79  | Boys        |
| G   | B    | 102 | 37.08 | 16.24 | 1.61    |       |          |      |             |
| B   | C    | 113 | 38.03 | 21.49 | 2.05    | 1.24  | 2.83     | .44  | Boys        |
| G   | C    | 89  | 36.79 | 19.39 | 1.95    |       |          |      |             |
| B   | D    | 118 | 44.12 | 21.07 | .18     |       |          |      |             |
| G   | D    | 86  | 45.12 | 18.48 | .21     | 1.    | .63      | 1.57 | Girls       |
| B   | E    | 102 | 48.88 | 25.24 | 2.43    | 5.44  | 3.06     | 1.78 | Boys        |
| G   | E    | 93  | 43.44 | 19.46 | 2.02    |       |          |      |             |

TABLE XX

CRITICAL RATIOS ON SEX DIFFERENCES ON THE EARLEY EXPERIMENTAL TEST IN GRADE V

| Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE Diff. | CR   | Favor<br>of |
|-----|------|-----|-------|-------|---------|-------|----------|------|-------------|
| B   | A    | 100 | 64.9  | 24.15 | 2.41    | 6.11  | 2.10     | 2.96 | Boys        |
| G   | A    | 110 | 58.79 | 22.26 | 2.12    |       |          |      |             |
| B   | B    | 101 | 59.53 | 19.6  | 1.95    | 5.14  | 2.62     | 1.95 | Boys        |
| G   | B    | 106 | 54.39 | 18.6  | 1.81    |       |          |      |             |
| B   | C    | 98  | 56.43 | 22.40 | 2.26    | 1.63  | 3.03     | .54  | Boys        |
| G   | C    | 109 | 54.80 | 21.28 | 2.03    |       |          |      |             |
| B   | D    | 107 | 62.03 | 21.21 | 2.05    | 4.51  | 2.92     | 1.52 | Boys        |
| G   | D    | 96  | 57.52 | 20.44 | 2.08    |       |          |      |             |
| B   | E    | 89  | 71.48 | 19.74 | 2.09    | 4.73  | 2.81     | 1.69 | Boys        |
| G   | E    | 116 | 66.75 | 20.3  | 1.88    |       |          |      |             |

TABLE XXI

CRITICAL RATIOS ON SEX DIFFERENCES ON THE EARLEY EXPERIMENTAL TEST IN GRADE VI

| Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE Diff. | CR   | Favor of |
|-----|------|-----|-------|-------|---------|-------|----------|------|----------|
| B   | A    | 91  | 77.85 | 25.90 | 2.64    | 7.52  | 3.68     | 2.07 | Boys     |
| G   | A    | 104 | 70.23 | 25.20 | 2.47    |       |          |      |          |
| B   | B    | 106 | 75.87 | 24.78 | 2.41    | 2.92  | 3.63     | .80  | Boys     |
| G   | B    | 80  | 72.95 | 24.15 | 2.7     |       |          |      |          |
| B   | C    | 113 | 72.02 | 22.96 | 2.16    | 3.84  | 2.92     | 1.32 | Boys     |
| G   | C    | 89  | 68.18 | 18.48 | 1.96    |       |          |      |          |
| B   | D    | 102 | 73.45 | 19.74 | 1.95    |       |          |      |          |
| G   | D    | 94  | 80.70 | 21.00 | 2.16    | 7.25  | 2.02     | 3.59 | Girls    |
| B   | E    | 103 | 81.68 | 19.6  | 1.93    | .61   | 2.48     | .25  | Boys     |
| G   | E    | 95  | 81.07 | 15.1  | 1.55    |       | 3.28     |      |          |

TABLE XXII

CRITICAL RATIOS ON SEX DIFFERENCES ON THE WOLFFER EXPERIMENTAL TEST IN GRADE IV

| Sex | Form | No. | Mean  | SD   | SE<br>M | Diff. | SE Diff. | CR   | Favor of |
|-----|------|-----|-------|------|---------|-------|----------|------|----------|
| B   | A    | 84  | 33.26 | 14.0 | 1.53    | 2.26  | 1.7      | 1.33 | Boys     |
| G   | A    | 102 | 31.00 | 8.4  | .83     |       |          |      |          |
| B   | B    | 91  | 32.42 | 14.0 | 1.47    | 1.00  | 1.6      | .63  | Boys     |
| G   | B    | 100 | 31.42 | 12.8 | 1.28    |       |          |      |          |
| B   | C    | 90  | 36.38 | 15.2 | 1.60    | 2.76  | 1.9      | 1.45 | Boys     |
| G   | C    | 93  | 33.62 | 11.2 | 1.16    |       |          |      |          |
| B   | D    | 93  | 29.82 | 12.4 | 1.29    | 1.52  | 1.8      | .83  | Boys     |
| G   | D    | 89  | 28.30 | 12.4 | 1.31    |       |          |      |          |
| B   | EE   | 100 | 31.02 | 13.6 | 1.36    | 2.36  | 1.8      | 1.31 | Boys     |
| G   | E    | 85  | 28.66 | 11.6 | 1.26    |       |          |      |          |

TABLE XXIII

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
WOLFFER EXPERIMENTAL TEST IN GRADE V

| Sex | Form | No. | Mean  | SD   | SE<br>M | Diff. | SE<br>Diff. | CR   | Favor<br>of |
|-----|------|-----|-------|------|---------|-------|-------------|------|-------------|
| B   | A    | 106 | 45.75 | 12.4 | 1.20    | 7.00  | 1.6         | 4.37 | Boys        |
| G   | A    | 108 | 38.75 | 11.2 | 1.08    |       |             |      |             |
| B   | B    | 109 | 47.54 | 14.4 | 1.38    | 3.38  | 1.9         | .20  | Boys        |
| G   | B    | 107 | 43.66 | 13.4 | 1.30    |       |             |      |             |
| B   | C    | 104 | 49.31 | 13.2 | 1.29    | 2.66  | 1.7         | 1.56 | Boys        |
| G   | C    | 110 | 46.65 | 12.4 | 1.18    |       |             |      |             |
| B   | D    | 110 | 45.02 | 14.0 | 1.33    | 5.88  | 1.8         | 3.26 | Boys        |
| G   | D    | 105 | 39.14 | 12.0 | 1.17    |       |             |      |             |
| B   | E    | 103 | 44.09 | 14.0 | 1.38    | 4.73  | 1.8         | 2.63 | Boys        |
| G   | E    | 102 | 39.36 | 12.0 | 1.19    |       |             |      |             |

TABLE XXIV

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
WOLFFER EXPERIMENTAL TEST IN GRADE VI

| Sex | Form | No. | Mean  | SD   | SE<br>M | Diff. | SE<br>Diff. | CR   | Favor<br>of |
|-----|------|-----|-------|------|---------|-------|-------------|------|-------------|
| B   | A    | 109 | 51.78 | 12.0 | 1.15    | 2.55  | 1.8         | 1.42 | Boys        |
| G   | A    | 102 | 49.23 | 11.6 | 1.15    |       |             |      |             |
| B   | B    | 111 | 55.98 | 14.8 | 1.40    | 3.32  | 2.0         | 1.66 | Boys        |
| G   | B    | 98  | 52.66 | 13.8 | 1.43    |       |             |      |             |
| B   | C    | 98  | 57.10 | 13.4 | 1.35    | 4.20  | 1.8         | 2.33 | Boys        |
| G   | C    | 101 | 52.90 | 12.4 | 1.18    |       |             |      |             |
| B   | D    | 99  | 52.88 | 15.2 | 1.53    | 3.13  | 2.1         | 1.49 | Boys        |
| G   | D    | 96  | 49.75 | 14.0 | 1.43    |       |             |      |             |
| B   | E    | 96  | 53.25 | 12.4 | 1.26    | 4.55  | 1.8         | 2.53 | Boys        |
| G   | E    | 107 | 48.70 | 13.2 | 1.28    |       |             |      |             |

Critical ratios between boys and girls on forms of the final test of both the Earley and Wolffer tests are shown in the series of tables, Table XXV through XXX.

TABLE XXV

CRITICAL RATIOS ON SEX DIFFERENCES ON THE FINAL FORMS OF EARLEY TEST IN GRADE IV OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE   | Diff. | SE    | CR   | Favor of |
|-----------|-----|------|-----|-------|-------|------|-------|-------|------|----------|
|           |     |      |     |       |       | M    |       | Diff. |      |          |
| I         | B   | I    | 134 | 54.30 | 28.10 | 2.43 | 2.20  | 3.5   | .63  | Boys     |
| I         | G   | I    | 117 | 52.10 | 26.95 | 2.49 |       |       |      |          |
| R         | B   | I    | 128 | 50.90 | 29.33 | 2.59 |       |       |      |          |
| R         | G   | I    | 111 | 54.54 | 25.50 | 2.39 | 3.64  | 3.52  | 1.03 | Girls    |
| R         | B   | II   | 137 | 42.44 | 27.86 | 2.38 |       |       |      |          |
| R         | G   | II   | 107 | 47.47 | 21.07 | 2.04 | 5.03  | 3.01  | 1.64 | Girls    |

TABLE XXVI

CRITICAL RATIOS ON SEX DIFFERENCES ON THE FINAL FORMS OF EARLEY TEST IN GRADE V OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE   | Diff. | SE    | CR   | Favor of |
|-----------|-----|------|-----|-------|-------|------|-------|-------|------|----------|
|           |     |      |     |       |       | M    |       | Diff. |      |          |
| I         | B   | I    | 114 | 67.00 | 25.65 | 2.38 | .30   | 3.3   | .09  | Boys     |
| I         | G   | I    | 106 | 66.70 | 23.70 | 2.30 |       |       |      |          |
| R         | B   | I    | 91  | 62.94 | 19.04 | 2.00 |       |       |      |          |
| R         | G   | I    | 97  | 65.88 | 18.76 | 1.90 | 2.94  | 2.76  | 1.07 | Girls    |
| R         | B   | II   | 150 | 74.22 | 25.34 | 2.07 | 7.12  | 3.06  | 2.33 | Boys     |
| R         | G   | II   | 120 | 67.10 | 24.71 | 2.26 |       |       |      |          |

TABLE XXVII

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
FINAL FORMS OF EARLEY TEST IN GRADE VI  
OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE<br>Diff. | CR   | Favor<br>of |
|-----------|-----|------|-----|-------|-------|---------|-------|-------------|------|-------------|
| I         | B   | I    | 125 | 88.88 | 21.21 | 1.90    | 6.60  | 2.8         | 2.36 | Boys        |
| I         | G   | I    | 105 | 82.28 | 20.54 | 2.00    |       |             |      |             |
| R         | B   | I    | 132 | 85.69 | 26.04 | 2.27    | 2.03  | 3.01        | .67  | Boys        |
| R         | G   | I    | 99  | 83.66 | 19.74 | 1.98    |       |             |      |             |
| R         | B   | II   | 150 | 80.90 | 25.70 | 2.10    |       |             |      |             |
| R         | G   | II   | 106 | 81.31 | 22.68 | 2.20    | .41   | 3.04        | .13  | Girls       |

TABLE XXVIII

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
FINAL FORMS OF WOLFFER TEST IN GRADE IV  
OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE<br>Diff. | CR  | Favor<br>of |
|-----------|-----|------|-----|-------|-------|---------|-------|-------------|-----|-------------|
| I         | B   | I    | 106 | 27.63 | 12.12 | 1.18    | 1.20  | 1.5         | .80 | Boys        |
| I         | G   | I    | 110 | 26.43 | 9.33  | .89     |       |             |     |             |
| R         | B   | I    | 134 | 33.58 | 10.4  | .90     | .04   | 1.5         | .03 | Boys        |
| R         | G   | I    | 112 | 33.54 | 14.0  | 1.3     |       |             |     |             |
| R         | B   | II   | 156 | 37.20 | 16.8  | 1.34    |       |             |     |             |
| R         | G   | II   | 128 | 38.40 | 14.8  | 1.31    | 1.2   | 1.6         | .76 | Girls       |

TABLE XXIX

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
FINAL FORMS OF WOLFFER TEST IN GRADE V  
OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE<br>Diff. | CR   | Favor<br>of |
|-----------|-----|------|-----|-------|-------|---------|-------|-------------|------|-------------|
| I         | B   | I    | 130 | 42.96 | 14.15 | 1.13    | 4.65  | 1.2         | 3.9  | Boys        |
| I         | G   | I    | 120 | 38.31 | 12.78 | 1.17    |       |             |      |             |
| R         | B   | I    | 103 | 35.34 | 17.3  | 1.70    | 1.16  | 1.7         | .64  | Boys        |
| R         | G   | I    | 99  | 34.18 | 16.0  | 1.61    |       |             |      |             |
| R         | B   | II   | 113 | 49.1  | 17.6  | 1.65    | 5.2   | 1.7         | 3.05 | Boys        |
| R         | G   | II   | 104 | 43.9  | 15.6  | 1.53    |       |             |      |             |

TABLE XXX

CRITICAL RATIOS ON SEX DIFFERENCES ON THE  
FINAL FORMS OF WOLFFER TEST IN GRADE VI  
OF COMMUNITIES I AND R

| Community | Sex | Form | No. | Mean  | SD    | SE<br>M | Diff. | SE<br>Diff. | CR   | Favor<br>of |
|-----------|-----|------|-----|-------|-------|---------|-------|-------------|------|-------------|
| I         | B   | I    | 121 | 53.09 | 12.82 | 1.16    | 2.19  | 2.0         | 1.10 | Boys        |
| I         | G   | I    | 79  | 50.90 | 14.13 | 1.59    |       |             |      |             |
| R         | B   | I    | 116 | 54.7  | 16.8  | 1.56    | 1.6   | 1.8         | .89  | Boys        |
| R         | G   | I    | 93  | 53.1  | 16.0  | 1.66    |       |             |      |             |
| R         | B   | II   | 124 | 58.1  | 14.0  | 1.26    | 4.8   | 1.7         | 2.82 | Boys        |
| R         | G   | II   | 94  | 53.3  | 16.8  | 1.73    |       |             |      |             |

All of the critical ratios in the foregoing tables have been brought together in Table XXXI. Of the forty-eight critical ratios computed, forty of them favor the boys and only eight favor the girls.

TABLE XXXI

DISTRIBUTION OF CRITICAL RATIOS BETWEEN BOYS AND GIRLS ON DIFFERENT FORMS OF THE EARLEY AND WOLFFER TESTS WITH VARYING GROUPS

| Grade | Test    | Form   | Favors Boys | Favors Girls |
|-------|---------|--------|-------------|--------------|
| IV    | Earley  | Exp. A | .           | 1.48         |
| IV    | Earley  | Exp. B | .79         |              |
| IV    | Earley  | Exp. C | .44         |              |
| IV    | Earley  | Exp. D |             | 1.57         |
| IV    | Earley  | Exp. E | 1.78        |              |
| IV    | Wolffer | Exp. A | 1.33        |              |
| IV    | Wolffer | Exp. B | .63         |              |
| IV    | Wolffer | Exp. C | 1.45        |              |
| IV    | Wolffer | Exp. D | .83         |              |
| IV    | Wolffer | Exp. E | 1.31        |              |
| IV    | Earley  | I      | .63         |              |
| IV    | Earley  | I      |             | 1.03         |
| IV    | Earley  | II     |             | 1.64         |
| IV    | Wolffer | I      | .80         |              |
| IV    | Wolffer | I      | .03         |              |
| IV    | Wolffer | II     |             | .76          |
| V     | Earley  | Exp. A | 2.96        |              |
| V     | Earley  | Exp. B | 1.95        |              |
| V     | Earley  | Exp. C | .54         |              |
| V     | Earley  | Exp. D | 1.52        |              |
| V     | Earley  | Exp. E | 1.69        |              |
| V     | Wolffer | Exp. A | 4.37        |              |
| V     | Wolffer | Exp. B | .20         |              |
| V     | Wolffer | Exp. C | 1.56        |              |
| V     | Wolffer | Exp. D | 3.26        |              |
| V     | Wolffer | Exp. E | 2.63        |              |
| V     | Earley  | I      | .09         |              |
| V     | Earley  | I      |             | 1.67         |
| V     | Earley  | II     | 2.33        |              |
| V     | Wolffer | I      | 3.90        |              |
| V     | Wolffer | I      | .64         |              |
| V     | Wolffer | II     | 3.05        |              |

TABLE XXXI (continued)

DISTRIBUTION OF CRITICAL RATIOS BETWEEN BOYS AND GIRLS  
ON DIFFERENT FORMS OF THE EARLEY AND WOLFFER TESTS WITH  
VARYING GROUPS

| Grade | Test    | Form   | Favors<br>Boys | Favors<br>Girls |
|-------|---------|--------|----------------|-----------------|
| VI    | Earley  | Exp. A | 2.07           |                 |
| VI    | Earley  | Exp. B | .80            |                 |
| VI    | Earley  | Exp. C | 1.32           |                 |
| VI    | Earley  | Exp. D |                | 3.59            |
| VI    | Earley  | Exp. E | .25            |                 |
| VI    | Earley  | I      | 2.36           |                 |
| VI    | Earley  | I      | .67            |                 |
| VI    | Earley  | II     |                | .13             |
| VI    | Wolffer | Exp. A | 1.42           |                 |
| VI    | Wolffer | Exp. B | 1.66           |                 |
| VI    | Wolffer | Exp. C | 2.33           |                 |
| VI    | Wolffer | Exp. D | 1.49           |                 |
| VI    | Wolffer | Exp. E | 2.53           |                 |
| VI    | Wolffer | I      | 1.10           |                 |
| VI    | Wolffer | I      | .89            |                 |
| VI    | Wolffer | II     | 2.82           |                 |

Using a critical ratio of 2.57, which is at the 1 per cent level, as the acceptable level of significance, there was but one statistically significant difference in favor of the girls while there were seven in favor of the boys. So consistently do most of the critical ratios favor the boys, even though not statistically significant, that it seems apparent that there are sex differences in social studies vocabulary as in other aspects of social studies interests and achievements.

CHAPTER VII

ANALYSES OF DATA IN FURTHER STUDIES

Four separate studies on the Earley and Wolffer tests are reported in this chapter. These studies undertook:

1. To determine the relationship between achievement in social studies vocabulary and intelligence quotients, and to determine the predictive implications of the relationship found.

2. To determine whether there are any differences in the performance on a category type of social studies vocabulary test as compared with a context type test.

3. To validate the conclusions of Wolffer and Earley to determine whether in each case the two final forms of the social studies vocabulary test are balanced.

4. To determine the reliability for each of the two forms of the Earley and Wolffer tests at each of the three grade levels.

The following procedures were used to determine the relationship between intelligence quotients and vocabulary test scores:

1. Administration of test to intermediate grades 4, 5, and 6 in Community R.

2. The selection of a random sampling of 100 cases per grade for further test analysis for each form of test used.

3. Comparison of intelligence test scores and social studies vocabulary test scores by Pearson product-moment coefficient of correlation.

4. Comparison of scores on category and context type of tests in social studies vocabulary by Pearson product-moment coefficient of correlation.

5. Comparison of the two final forms of Wolffer tests and two final forms of the Earley test by the Pearson product-moment coefficient of correlation.

6. Determining the reliability for each of the two forms of the Earley and Wolffer tests at each of the three grade levels.

7. Analysis of results:

A total of 2804 pupils were administered the tests in these grades, a breakdown of which is presented below:

TABLE XXXII

NUMBER OF PUPILS IN GRADES IV, V, AND VI TAKING THE EARLEY AND WOLFFER TESTS, FORMS I AND II

| Grade   | Earley |         | Wolffer |         |
|---------|--------|---------|---------|---------|
|         | Form I | Form II | Form I  | Form II |
| IV      | 239    | 244     | 246     | 284     |
| V       | 188    | 270     | 202     | 217     |
| VI      | 231    | 256     | 209     | 218     |
| Totals: | 658    | 770     | 657     | 719     |

In obtaining the random sampling of 100 cases from each of these grades no attempt was made to select on the basis of sex. The number of boys and girls tested is however approximately equal at each grade level gathered from the procedure table.

Analysis of Data

TABLE XXXIII

RELATIONSHIP BETWEEN INTELLIGENCE QUOTIENTS AND  
SOCIAL STUDIES VOCABULARY FOR GRADES IV-VI  
IN FORM I OF THE WOLFFER TEST

| GRADE | COEFFICIENT OF CORRELATION |
|-------|----------------------------|
| IV    | .61                        |
| V     | .38                        |
| VI    | .54                        |

The above table indicates a marked relationship between intelligence quotients and Wolffer test scores, Form I especially for Grades 4 and 6. There is a tendency for the brighter child to score higher in social studies vocabulary but more markedly so in the Fourth and Sixth grades. The reason for the reduced correlation between intelligence test scores and Wolffer test scores for Grade 5 is difficult to determine. Continued study of the causes for this lack of adaptation of the test to this group might reveal some reasons for the slight reduction in correlation.

TABLE XXXIV

RELATIONSHIPS BETWEEN INTELLIGENCE QUOTIENTS AND  
SOCIAL STUDIES VOCABULARY FOR GRADES IV-VI  
IN FORM II OF THE WOLFFER TEST

| GRADE | COEFFICIENT OF CORRELATION |
|-------|----------------------------|
| IV    | .53                        |
| V     | .53                        |
| VI    | .66                        |

The correlations presented in Table XXXIV show a marked positive relationship between intelligence quotients and Wolffer test scores, Form II, for grades four, five, and six. In other words, there is a tendency for the brighter child to do well on the social studies vocabulary test.

TABLE XXXV

RELATIONSHIPS BETWEEN INTELLIGENCE QUOTIENTS AND  
SOCIAL STUDIES VOCABULARY FOR GRADES IV-VI  
IN FORM I OF THE EARLEY TEST

| GRADE | COEFFICIENT OF CORRELATION |
|-------|----------------------------|
| IV    | .63                        |
| V     | .61                        |
| VI    | .64                        |

The above table indicates a marked positive relationship between intelligence quotients and Earley test scores, Form I for grades 4, 5, and 6. This relationship between Form I of the Earley test and intelligence is slightly higher than for any of the other forms analyzed.

TABLE XXXVI

RELATIONSHIP BETWEEN INTELLIGENCE QUOTIENTS AND  
SOCIAL STUDIES VOCABULARY FOR GRADES IV-VI  
IN FORM II OF THE EARLEY TEST

| GRADE | COEFFICIENT OF CORRELATION |
|-------|----------------------------|
| IV    | .61                        |
| V     | .48                        |
| VI    | .70                        |

The above table indicates a marked relationship between intelligence quotients and Earley test scores, Form II, especially for Grades 4 and 6. There is a tendency for the brighter child to do well on the social studies vocabulary test. The reason for the reduced correlation between intelligence quotients and Earley test scores for Grade 5 cannot be explained without further study.

TABLE XXXVII

RELATIONSHIPS BETWEEN CATEGORY AND CONTEXT  
TYPE OF VOCABULARY TESTING IN THE SOCIAL STUDIES

| Grade | Form I<br>Earley & Wolffer | Form II<br>Earley & Wolffer |
|-------|----------------------------|-----------------------------|
| V     | .84                        | .84                         |

The above table indicates a high positive correlation and a marked relationship between category and context type of social studies vocabulary testing in Grade V.

TABLE XXXVIII

RELATIONSHIP BETWEEN THE TWO FINAL FORMS  
OF THE EARLEY AND WOLFFER SOCIAL  
STUDIES VOCABULARY TESTS

| GRADE | Wolffer<br>Forms I & II | Earley<br>Forms I & II |
|-------|-------------------------|------------------------|
| V     | .91                     | .92                    |

The above table indicates a marked degree of reliability between the two forms of the Earley and Wolffer and shows that they are balanced forms.

The reliability of each of the balanced forms was computed by use of the Kuder-Richardson Formula #21.

$$r_{tt} \text{ equals } \frac{n}{n-1} \cdot \frac{\sigma^2 t^2 - np\bar{q}}{\sigma^2 t^2}$$

where: n equals the number of items on test

t . equals standard deviation of the total test squared

$\bar{p}$  equals  $\frac{\text{Mean}}{\text{number of items}}$

$\bar{q}$  equals  $1 - \frac{\text{Mean}}{\text{number of items}}$

TABLE XXXIX  
 RELIABILITIES OF EACH OF THE TWO FORMS OF  
 THE EARLEY AND WOLFFER TEST AT  
 EACH OF THE THREE GRADE LEVELS

| GRADE | Earley |         | Wolfer |         |
|-------|--------|---------|--------|---------|
|       | Form I | Form II | Form I | Form II |
| 4     | .97    | .96     | .91    | .93     |
| 5     | .93    | .96     | .94    | .94     |
| 6     | .96    | .96     | .94    | .94     |

Table XXXIX shows that the reliability indices indicate that all tests measured with a high degree of reliability and consistency.

## CHAPTER VIII

## SUMMARY AND CONCLUSIONS

Summary

The purpose of this investigation was to pursue further the study and analysis of the intermediate grades social studies vocabulary tests constructed by William L. Earley, Jr. and William A. Wolffer. The present study was concerned with the following problems:

1. A comparison of the results of the Gates General Vocabulary Test with the Earley and Wolffer Social Studies Vocabulary Tests to determine the correlation between achievement on a general vocabulary test and a social studies vocabulary test.

2. An analysis of the results of the misconceptions on the final form words of the Earley and Wolffer tests, in an attempt to analyze the reasons for the misconceptions.

3. An analysis of the results of the experimental and final forms of the Earley and Wolffer tests to discover whether there are any significant differences of achievement between the boys and girls at each grade level.

4. A comparison of the two final forms of the Wolffer test to determine whether they are balanced forms.

5. A comparison of the two final forms of the Earley test to determine whether they are balanced forms.

6. A comparison and evaluation of two types of testing techniques - the context type used by Wolffer and the category type used by Earley.

7. A correlation of intelligence with achievement on the final forms of the Earley and Wolffer tests,

8. To determine the degree of reliability of each form of the Earley and Wolffer test at each of the intermediate grade levels.

An analysis of the test data existing as a result of the testing with the experimental forms of the Earley and Wolffer tests was done by tabulating all responses made by each of the children at each of the intermediate grade levels and by computing the percentages of these responses on the correct items. The two balanced forms of the Earley and Wolffer tests were constructed by utilizing the words listed by these experimenters. These balanced forms were administered to approximately 3,000 children who comprised the total fourth, fifth, and sixth grade populations of two communities, one primarily residential and the other an industrial city. In addition to taking Form I of the Earley and Wolffer tests, the children in Community I, the industrial city, were administered the vocabulary section of the Gates Reading Survey for Grades 3 to 10.

Using the data resulting from the testing in Community I, correlations were computed between social studies vocabulary test results and general vocabulary test results. In Community R, the residential city, all children were administered Forms I and II of the Earley and Wolffer tests, and from this data, critical ratios were computed and reported between boys and girls and between grades; correlations were computed and reported between intelligence quotients and social studies vocabulary scores, between category and context type of vocabulary testing, and between Forms I and II of

both tests to determine whether these final forms were truly balanced. The test papers resulting from the testing with the experimental forms were analyzed in an attempt to determine, as much as possible, the reasons for the misconceptions of the children as evidenced by their incorrect responses on the balanced form words of the Earley and Wolffer tests.

### Conclusions

#### Comparison of Social Studies Vocabulary with General Vocabulary.

1. In this study there is evidence of a high positive correlation and a high marked relationship between the Earley Social Studies Vocabulary Test and the Gates Vocabulary Test as indicated by the correlation coefficients at the fourth and sixth grade levels of .76 and .75, respectively. The coefficient of .70 for grade five showed a marked relationship and a substantial correlation between these two sets of vocabulary test scores.

2. There is also evidence of a high positive correlation and a marked relationship between the Wolffer Social Studies Vocabulary Test and the Gates Vocabulary Test as indicated by the correlation coefficients, at the fifth and sixth grade levels of .72 and .72, respectively. A moderate correlation is indicated at the fourth grade level by the coefficient of .60 between the Wolffer and Gates tests.

3. In general, based on the findings of this study, the pupil who scores high on the Gates test may be expected to score high on the Earley and Wolffer tests. Variations in the scores in the Gates test may be expected to be concomitant with corresponding variations in the social studies test scores.

4. Additional evidence of the validity of the tests is found in the means which increased consistently in both tests with the increasing grade level.

5. The correlation coefficients computed show a limited predictive value in that the accuracy with which one variable can be forecast from known values of the other declines from 33 1/3% to 20% as the magnitude of the correlation decreases.

#### Sex Differences.

1. The analysis of the social studies vocabulary resulting from the computation of forty-eight critical ratios between means of boys and girls, showed seven significant differences favoring the boys and only one significant difference favoring the girls.

a. In grade IV, the critical ratios ranging from .03 to 1.78 were not significant, but favored the boys.

b. In grade V, four significant ratios of 3.05, 3.26, 3.90, and 4.37 were found showing significant differences favoring the boys.

c. In grade VI, one significant critical ratio of 2.82, favored the boys. Another critical ratio of 3.59 was found showing a significant difference in favor of the girls.

2. Although most of the critical ratios were ~~not~~ statistically significant, so consistently did they favor the boys that it seems apparent that there are sex differences in social studies vocabulary as there are in other aspects of social studies interest and achievements found by other investigators.

### Analysis of Children's Misconceptions.

The results of the study made of the misconceptions of the social studies words presented in context and in category form in the Earley and Wolffer Social Studies Vocabulary Tests, indicate some common reasons for misconceptions made by children of the fourth, fifth, and sixth grades.

1. Predominant among these reasons is that of wrong association of ideas, followed by misconceptions due to reading errors of configuration and perception.

2. In the Wolffer tests, misconceptions due to poor comprehension were evidenced in the selection of responses in context.

3. Many words presented in categories in the Earley test showed misconceptions due to incorrect connotation.

4. The indication of unfamiliarity of words in both tests, by omissions on the Wolffer test and by omissions and cross-outs on the Earley test, ranked high.

5. Responses to correct answers on the Earley test indicate a growth, by grade, in mastery of vocabulary. A greater achievement is shown between grades four and five than between five and six.

### Results of Further Investigations Between Both Forms of the Earley and Wolffer Tests.

1. There is a significant positive relationship between intelligence quotients and the Wolffer Social Studies Vocabulary Test results as indicated by the correlation coefficients at the fourth and sixth grade levels of .61 and .54, respectively on Form I and of .53, .53, and .66 at the fourth, fifth, and sixth grade levels respectively, on Form II.

The coefficient of .38 on Form I at the fifth grade level was the lowest correlation found.

2. There is also evidence of a significant positive relationship between intelligence quotients and the Earley Social Studies Vocabulary Test results as indicated by the correlation coefficients at the fourth and sixth grade levels of .63 and .64, respectively on Form I and of .61 and .70 on Form II at those same grade levels. Moderate correlations with some degree of positive relationship were indicated at the fifth grade levels by the coefficients of .61 and .48 on Forms I and II, respectively.

3. There is a marked degree of relationship between category and context type of vocabulary testing as indicated by the correlation coefficients at the fifth grade level of .84 on Forms I and II.

4. There is a marked degree of relationship between each of the two forms of the Earley and Wolffer tests as evidenced by the correlation coefficients of .92 between Forms I and II of the Earley test and of .91 between Forms I and II of the Wolffer test indicating that the forms appear well balanced.

5. There is a high degree of reliability existing at each grade level on each of the two forms of the Earley and Wolffer tests as indicated by the following reliability indices:

- a. Earley Test, Form I, grade 4, .97; grade 5, .93; and grade 6, .96.
- b. Earley Test, Form II, grades 4, 5, and 6, .96.
- c. Wolffer Test, Form I, grade 4, .91; grades 5, and 6, .94.

d. Wolffer Test, Form II, grade 4, '93; grades 5 and 6, '94.

Implications from the Study

The strengthening of vocabulary work in the social studies is apparently a need which requires much serious consideration. To develop more adequately a meaningful vocabulary in this field, deliberate, careful planning and presentation of words in their broadest concepts as well as specific uses appears necessary and justifiable. A more successful achievement in social studies vocabulary can perhaps be attained through the enrichment of all words basically required for the understanding of social studies concepts.

The transition of the careful reading habits in the areas of comprehension and audio and visual discrimination to the social studies field, would, in all probability, be a most effective factor in providing tools for meeting some of the needs essential to the building of an adequate social studies vocabulary.

Whereas a number of items were responded to correctly by fifth grade children and yet were incorretly responded to by sixth grade children, an effort to insure continued achievement and retention of social studies vocabulary should be made in the teaching of social studies by providing sufficient review and adequate opportunities for continued use and application of as many as possible of the social studies words previously taught.

Teachers of social studies subjects in the primary and intermediate grades should make a conscious effort to employ the specific social studies terms when presenting a particular concept and avoid substituting an easier word of synonymous meaning.

Inasmuch as the Wolffer Social Studies Vocabulary Test showed a failure in choosing the correct meaning of a word because of difficulty in understanding the word in context, it would appear that the teaching of social studies vocabulary should include sufficient practice with words in their contextual settings as well as with terms as isolated definitions.

Suggested Further Research

In view of the findings of the present studies suggestions for further research might include the following:

1. Correlation of the Earley and Wolffer Social Studies Vocabulary Tests with Social Studies Achievement Tests.

2. Instructing controlled and experimental groups using the diagnostic tests utilized in this study as a basis for a comparison of the effects of instruction between groups at each of grades four, five, and six.

3. A comparison of the social studies word lists in this study with existing spelling word lists to determine commonness of social studies words in spelling instruction and the grade levels at which these words are introduced through spelling instruction.

4. A comparison of the items included in the balanced forms of this study with other existing social studies vocabulary tests for grades four, five, and six, to determine the relationship of common items.

5. A study of omissions (words not responded to) in an attempt to arrive at a list of words required for the understanding of basic social studies concepts which appear unfamiliar or unknown to the children of grades four, five, and six, to form the basis for a Social Studies Vocabulary Manual in order to make these words more meaningful to the children.

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APPENDIX A

## APPENDIX A

WORDS ON EARLEY AND WOLFFER  
SOCIAL STUDIES LISTS

| Word         | E | W | E' | W' |               | E | W | E' | W' |
|--------------|---|---|----|----|---------------|---|---|----|----|
| abbot        | x |   |    |    | attorney      | x |   | x  |    |
| A. D.        | x |   |    |    | aviator       | x |   | x  |    |
| admiral      | x | x | x  |    | avocado       | x |   |    |    |
| agreement    | x |   | x  |    | backwoods     | x |   |    |    |
| agriculture  |   | x |    | x  | ballot        | x |   | x  |    |
| aircraft     | x |   |    |    | bank(fishing) |   | x |    |    |
| airway       | x |   |    |    | bank(river)   |   | x |    |    |
| alfalfa      | x |   | x  |    | banker        | x |   | x  |    |
| allies       |   | x |    | x  | barbarian     | x | x | x  |    |
| alluvial     | x |   |    |    | barbaric      |   | x |    |    |
| alpaca       | x |   |    |    | barbarous     |   | x |    | x  |
| alps         | x |   | x  |    | barge         | x |   | x  |    |
| aluminum     | x |   | x  |    | barley        | x |   | x  |    |
| ambassador   | x |   | x  |    | barren        | x |   |    |    |
| amber        | x |   |    |    | barter        | x |   |    |    |
| amendment    | x |   |    |    | basin         | x | x |    |    |
| amethyst     | x | x | x  |    | battleship    | x |   | x  |    |
| ancestor     | x |   | x  |    | bauxite       | x |   |    |    |
| ancient      | x | x |    |    | bay           | x | x | x  |    |
| annual       | x | x |    |    | B. G.         | x |   |    |    |
| antarctic    | x | x | x  |    | beaver        | x |   |    |    |
| antelope     | x |   |    |    | bill          | x |   | x  |    |
| antimony     | x |   |    |    | bishop        | x | x |    |    |
| apricot      | x |   | x  |    | bison         | x |   |    |    |
| aqueduct     |   | x |    | x  | blackberry    | x |   |    |    |
| arbitration  | x |   |    |    | blizzard      | x |   | x  |    |
| archbishop   | x |   | x  |    | blockhouse    | x |   | x  |    |
| archeologist | x |   | x  |    | bluff         | x |   |    |    |
| archipelago  | x |   |    |    | boat          | x |   |    |    |
| architect    | x |   | x  |    | bog           | x |   |    |    |
| artic        | x | x |    |    | borax         | x |   |    |    |
| arid         | x |   |    |    | border        | x | x |    | x  |
| armed forces |   | x |    |    | borderland    |   | x |    | x  |
| armistice    | x |   | x  |    | borough       | x |   |    |    |
| army         |   | x |    |    | boulevard     | x |   |    |    |
| artist       | x |   | x  |    | boundary      | x | x | x  |    |
| asbestos     | x |   |    |    | bounded       |   | x |    | x  |
| ashore       |   | x |    | x  | bran          | x |   |    |    |
| assess       | x |   |    |    | brass         | x |   | x  |    |
| astronomer   | x |   | x  |    | breakwater    | x |   |    |    |
| atoll        | x |   |    |    |               |   |   |    |    |

E - Words Appearing on Earley's Experimental Forms  
W - Words Appearing on Wolffer's Experimental Forms  
E' - Words Appearing on Earley's Balanced Forms  
W' - Words Appearing on Wolffer's Balanced Forms

| Word          | E | W | E' | W' | E             | W | E' | W' |
|---------------|---|---|----|----|---------------|---|----|----|
| breeze        | x | x | x  |    | climate       | x | x  | x  |
| bronze        | x |   | x  |    | clipper       | x |    |    |
| buckwheat     | x |   | x  |    | cloudy        | x |    |    |
| builder       | x |   | x  |    | coast         | x | x  |    |
| caliph        | x |   |    |    | coastal       | x | x  | x  |
| calms         | x | x | x  |    | coastal plain |   | x  |    |
| campaign      |   | x |    |    | coastline     |   | x  |    |
| canal         | x | x | x  | x  | cobbler       | x |    | x  |
| cannibal      | x |   |    |    | colonist      | x | x  |    |
| cantaloupe    | x |   | x  |    | colonizer     |   | x  |    |
| canton        | x |   |    |    | colony        | x | x  |    |
| canyon        | x | x |    | x  | command       |   | x  | x  |
| capital       | x | x |    |    | commander     | x | x  | x  |
| capitol       |   | x |    |    | commerce      | x | x  |    |
| captor        | x |   |    |    | commission    | x |    |    |
| cargo         |   | x |    | x  | commonwealth  | x | x  |    |
| caribou       | x |   | x  |    | communication |   | x  |    |
| carver        | x |   | x  |    | community     |   | x  | x  |
| cascade       | x | x |    |    | compass       |   | x  |    |
| caste         |   | x |    |    | compromise    | x | x  |    |
| cataract      | x | x |    |    | Congress      |   | x  |    |
| cattle        | x |   | x  |    | congressman   | x |    | x  |
| causeway      |   | x |    |    | conquer       |   | x  |    |
| cavern        | x |   |    |    | conqueror     |   | x  | x  |
| census        | x |   | x  |    | conquests     |   | x  |    |
| center        |   | x |    |    | constitution  | x | x  | x  |
| central       |   | x |    | x  | consul        |   | x  |    |
| century       | x | x | x  | x  | continent     | x | x  | x  |
| chain of      |   |   |    |    | continental   |   | x  | x  |
| islands       |   | x |    | x  | convention    | x |    | x  |
| chain of      |   |   |    |    | cooperatives  |   | x  |    |
| mountains     |   | x |    |    | copper        | x |    |    |
| channel       |   | x |    | x  | coppersmith   | x |    | x  |
| charter       | x | x |    |    | copra         | x |    |    |
| chemist       | x |   | x  |    | coral         | x |    |    |
| cherries      | x |   | x  |    | cotton gin    | x |    |    |
| chief         |   |   |    |    | council       | x | x  | x  |
| executive     | x |   |    |    | councillor    | x | x  | x  |
| cheiftain     |   | x |    |    | county        | x | x  |    |
| chromite      | x | x | x  |    | countryside   |   | x  |    |
| chromium      | x |   |    |    | cove          | x |    | x  |
| citizen       | x | x |    |    | covered       |   |    |    |
| city-state    | x | x |    |    | wagon         | x |    | x  |
| civic         |   | x |    |    | crest         | x | x  | x  |
| civil         |   | x |    |    | crop rotation |   | x  |    |
| civilization  |   | x |    |    | crops         | x | x  | x  |
| civilized     |   | x |    |    | crusader      | x |    | x  |
| civil service | x |   | x  |    | cultivate     | x | x  | x  |
| civil war     |   | x |    | x  | cultivation   |   | x  |    |
| clan          | x |   |    |    | culture       |   | x  |    |
| clergy        | x |   |    |    | current       | x | x  |    |
| cliff         | x | x | x  |    | customs       | x | x  |    |
|               |   |   |    |    | czar          | x |    |    |

| Word          | E | W | E' | W' |               | E | W | E' | W' |
|---------------|---|---|----|----|---------------|---|---|----|----|
| daily         | x | x | x  | x  | era           | x | x |    |    |
| dairy         | x |   |    |    | erosion       | x | x |    | x  |
| dairying      | x |   |    |    | estuary       | x |   |    |    |
| dawn          | x | x |    |    | expedition    |   | x |    |    |
| declaration   |   |   |    |    | exploration   |   | x |    |    |
| of            |   |   |    |    | explorer      |   | x |    |    |
| independence  | x | x | x  | x  | export        | x | x |    |    |
| decree        | x | x |    |    | exporter      | x |   | x  |    |
| degree        | x |   | x  |    | factory       | x |   |    |    |
| delegate      | x |   | x  |    | federal       | x | x | x  |    |
| delta         | x | x |    | x  | federation    | x |   |    |    |
| democracy     | x | x | x  |    | fee           | x | x |    |    |
| dependencies  |   | x |    | x  | fertile       | x | x | x  | x  |
| descendant    | x |   |    |    | fertility     |   | x |    | x  |
| desert        | x |   | x  |    | fertilizer    |   | x |    | x  |
| dictator      | x | x | x  |    | feudal        |   | x |    |    |
| dike          | x | x | x  |    | feuds         |   | x |    | x  |
| diplomat      | x |   | x  |    | fiord         | x | x |    |    |
| direction     |   | x |    | x  | fief          |   | x |    |    |
| dirigible     | x |   |    |    | fishery       | x |   |    |    |
| discover      |   | x |    |    | flax          | x |   | x  |    |
| distance      | x |   | x  |    | fleet         | x | x | x  |    |
| domain        | x | x |    |    | flood         | x | x | x  |    |
| dominion      | x |   |    |    | flow          |   | x |    | x  |
| dory          | x |   |    |    | fodder        | x |   | x  |    |
| down-river    | x | x | x  |    | foe           | x |   | x  |    |
| downstream    |   | x |    |    | fog           | x |   | x  |    |
| drain         |   | x |    | x  | foothills     | x |   | x  |    |
| drawbridge    | x |   |    |    | forces        |   | x |    | x  |
| drought       | x |   | x  |    | forefathers   |   | x |    |    |
| drouth        |   | x |    | x  | foreign       |   | x |    | x  |
| drugs         | x |   |    |    | foreigner     | x | x | x  | x  |
| dunes         | x |   | x  |    | forester      | x |   | x  |    |
| duty(customs) |   | x |    |    | fort          | x | x |    |    |
| duty          | x |   |    |    | fortification | x | x | x  |    |
| dynasty       | x |   |    |    | fortify       |   | x |    |    |
|               |   |   |    |    | fortress      | x | x | x  | x  |
| earl          | x |   |    |    | founded       |   | x |    | x  |
| earthquake    |   | x |    | x  | founder       |   | x |    |    |
| elect         | x | x | x  | x  | foundry       | x |   |    |    |
| election      | x | x | x  |    | freedom       |   | x |    | x  |
| elk           | x |   |    |    | friar         | x | x |    |    |
| embankment    | x | x |    | x  | frigid zone   | x | x | x  |    |
| embassador    | x |   |    |    | frontier      | x | x | x  |    |
| embassy       | x |   | x  |    | frontiersman  | x | x | x  |    |
| emerald       | x |   | x  |    | future        | x |   |    |    |
| emperor       | x | x | x  | x  |               |   |   |    |    |
| empire        | x | x | x  |    | gale          | x |   | x  |    |
| empress       |   | x |    |    | galleons      | x |   |    |    |
| equator       | x | x |    | x  | gap           | x | x | x  | x  |
| equatorial    |   | x |    |    |               |   |   |    |    |



| Word                 | E | W | E' | W' | E                      | W | E' | W' |
|----------------------|---|---|----|----|------------------------|---|----|----|
| labor union          | x |   |    |    | manganese              | x |    |    |
| lagoon               | x |   | x  |    | mango                  | x |    |    |
| land locked          |   | x |    |    | markind                | x |    |    |
| landlord             |   | x |    |    | manufacture            | x | x  | x  |
| landscape            |   | x |    |    | marine                 | x | x  |    |
| landward             | x |   |    |    | mariner                | x |    |    |
| latitude             | x |   |    |    | marketing              | x |    |    |
| launch               | x |   |    |    | maritime               | x |    |    |
| lawful               |   | x |    |    | marsh                  | x | x  | x  |
| lawmaker             |   | x |    |    | marshland              |   | x  | x  |
| law-making<br>bodies |   | x |    |    | marten                 | x |    |    |
| lawyer               | x |   | x  |    | mayor                  | x |    |    |
| lava                 | x |   |    |    | medieval               | x |    |    |
| league               | x |   |    |    | melons                 | x |    |    |
| league of<br>nations |   | x |    | x  | merchant               | x | x  | x  |
| legal                |   | x |    | x  | mercury                | x |    |    |
| legends (map)        |   | x |    |    | meridian               | x |    |    |
| legislation          | x |   |    |    | mesa                   | x | x  |    |
| legislature          | x |   | x  |    | metropolis             | x | x  |    |
| levee                | x |   | x  |    | mica                   | x |    |    |
| level of the<br>sea  |   | x |    | x  | microscope             | x |    | x  |
| liberated            |   | x |    |    | midafternoon           | x | x  |    |
| liberator            | x |   |    |    | midday                 | x |    | x  |
| liberty              | x |   |    |    | midnight               | x | x  |    |
| librarian            | x |   | x  |    | midmorning             | x |    | x  |
| lighthouse           | x |   |    |    | midsummer              | x |    | x  |
| lignite              | x |   |    |    | midway                 | x |    |    |
| lime                 | x |   |    |    | midwinter              | x |    |    |
| limestone            | x |   |    |    | miner                  | x |    |    |
| linen                | x |   |    |    | minerals               | x | x  | x  |
| livestock            | x |   | x  |    | minister               | x | x  |    |
| llamas               | x |   | x  |    | rink                   | x |    | x  |
| llanos               | x |   |    |    | millet                 | x | x  | x  |
| loam                 | x |   |    |    | milling                | x |    |    |
| locomotive           | x |   | x  |    | mileage                | x |    |    |
| loess                | x |   |    |    | militaristic           | x |    | x  |
| longitude            | x |   | x  |    | military               |   | x  | x  |
| lord                 | x | x |    |    | military<br>forces     | x |    | x  |
| lot                  | x |   |    |    | military<br>government | x |    |    |
| lowland              | x |   |    |    | militia                | x |    | x  |
| lumberjack           | x |   | x  |    | ministry               | x | x  | x  |
| magistrate           | x |   |    |    | mission                | x | x  |    |
| magnesium            | x |   | x  |    | missionary             | x |    | x  |
| mainland             | x | x | x  |    | mist                   | x |    |    |
| map                  |   | x |    | x  | mixed farming          |   | x  |    |
| mapped               |   | x |    |    | moat                   | x | x  |    |
| map scales           |   | x |    |    | modern                 | x | x  | x  |
|                      |   |   |    |    | moisture               | x | x  | x  |
|                      |   |   |    |    | monarch                | x | x  |    |

| Word           | E | W | E' | W' |               | E | W | E' | W' |
|----------------|---|---|----|----|---------------|---|---|----|----|
| monastery      | x | x |    |    | overlords     |   | x |    | x  |
| monk           | x |   |    |    | pact          | x |   |    |    |
| moose          | x |   | x  |    | pagan         | x |   |    |    |
| mosque         | x | x |    | x  | palisade      | x | x |    |    |
| mother         |   |   |    |    | pampas        | x |   |    |    |
| country        |   | x |    | x  | parallels     | x | x | x  |    |
| mountainous    | x | x |    |    | parliament    | x | x | x  |    |
| mountain range |   | x |    |    | parliamentary |   | x |    |    |
| munitions      | x |   |    |    | party         | x |   |    |    |
| musician       | x |   | x  |    | pass          | x | x |    | x  |
| nation         | x | x | x  |    | passage       |   | x |    |    |
| nationally     | x |   |    |    | pastor        | x |   | x  |    |
| native         | x |   | x  | x  | pastoral      | x |   |    |    |
| naval          |   | x |    |    | pasture       | x |   |    |    |
| navigable      | x | x | x  |    | patent        | x |   |    |    |
| navigation     | x | x | x  |    | patrician     | x |   |    |    |
| navigator      | x | x |    |    | patriot       |   | x |    | x  |
| navy           |   | x |    |    | patriotism    |   | x |    | x  |
| national       |   | x |    |    | patroon       | x |   |    |    |
| natural        |   |   |    |    | peace         |   | x |    |    |
| resources      |   | x |    | x  | peaceful      |   | x |    | x  |
| nature         |   | x |    | x  | peak          | x | x | x  |    |
| neighborhood   |   | x |    |    | peasant       | x | x |    | x  |
| neutral        | x | x |    |    | peat          | x |   |    |    |
| nitrate        | x |   |    |    | peddler       | x |   | x  |    |
| nitrogen       | x |   | x  |    | peninsula     | x | x | x  |    |
| nobel          | x | x |    |    | peon          | x |   |    |    |
| nomad          | x | x |    |    | petition      | x | x |    |    |
| noontime       | x |   |    |    | petroleum     | x |   | x  |    |
| northern       |   |   |    |    | pharaoh       |   | x |    |    |
| hemisphere     |   | x |    | x  | phosphate     | x |   | x  |    |
| nylon          | x |   | x  |    | physician     | x |   | x  |    |
| oasis          |   | x |    | x  | piedmont      | x |   |    |    |
| oath           | x |   |    |    | pier          | x |   |    |    |
| oath of office |   | x |    |    | pilot         | x |   |    |    |
| occident       | x |   |    |    | pioneer       | x | x |    |    |
| occupation     |   | x |    | x  | pioneering    |   | x |    | x  |
| oceanic        | x |   |    |    | plains        | x |   |    |    |
| ocean route    |   | x |    | x  | plantation    | x | x |    |    |
| officials      |   | x |    |    | plateau       | x | x |    |    |
| offshore       | x | x | x  |    | platinum      | x |   | x  |    |
| olives         | x |   |    |    | plot          | x |   |    |    |
| opal           | x |   | x  |    | polar         | x | x |    |    |
| orchard        | x |   |    |    | polder        | x | x |    |    |
| ore            | x | x |    | x  | political     |   | x |    | x  |
| orient         | x |   |    |    | political     |   |   |    |    |
| otter          | x |   | x  |    | party         |   | x |    | x  |
| outpost        | x |   |    |    | politician    | x | x |    |    |
| overflow       |   | x |    | x  | politics      | x |   | x  |    |
|                |   |   |    |    | pony express  | x |   | x  |    |

| Word           | E | W | E' | W' |               | E | W | E' | W' |
|----------------|---|---|----|----|---------------|---|---|----|----|
| pool           | x | x |    |    | reaping       | x |   |    |    |
| population     | x | x | x  | x  | rebel         | x |   | x  |    |
| port           | x | x |    |    | rebellion     | x |   | x  |    |
| portage        | x |   |    |    | reef          | x |   |    |    |
| possessions    |   | x |    |    | refinery      | x |   | x  |    |
| possum         | x |   |    |    | reformer      | x |   |    |    |
| post           |   | x |    |    | refugee       | x |   | x  |    |
| postmaster     | x |   | x  |    | region        |   | x |    | x  |
| potash         | x |   |    |    | reign         | x | x | x  |    |
| poultry        | x |   | x  |    | religion      |   | x |    |    |
| power plant    |   | x |    | x  | renaissance   | x |   |    |    |
| power (water)  |   | x |    |    | repeal        | x |   |    |    |
| prairie        | x | x |    |    | represent     |   | x |    | x  |
| preacher       | x |   | x  |    | representa-   |   |   |    |    |
| precipice      | x |   |    |    | tion          | x |   |    |    |
| precipitation  | x |   |    |    | republic      | x | x |    |    |
| prehistoric    | x |   | x  |    | reservation   | x |   | x  |    |
| priest         | x | x |    | x  | reservoir     | x | x | x  | x  |
| prime minister | x |   | x  |    | resort        | x |   |    |    |
| primitive      |   | x |    |    | revenue       | x |   |    |    |
| prince         | x | x | x  |    | revolution    |   | x |    |    |
| princess       | x |   |    |    | revolutionist | x |   | x  |    |
| proclamation   | x | x |    | x  | ricksha       | x |   | x  |    |
| produce        | x | x |    | x  | ridge         | x | x |    |    |
| produce(verb)  |   | x |    |    | rights        | x |   | x  |    |
| producer       |   | x |    |    | rotation      |   | x |    |    |
| production     |   | x |    |    | route         |   | x |    |    |
| products       |   | x |    | x  | rowboat       | x |   |    |    |
| prospector     | x |   | x  |    | royal         |   | x |    |    |
| province       | x | x |    |    | royalty       | x |   | x  |    |
| public         | x | x |    |    | ruler         | x | x |    |    |
| public domain  | x |   |    |    | rural         | x | x | x  |    |
| public works   |   | x |    |    | rye           | x |   |    |    |
| quarry         | x |   | x  |    | sandbank      | x |   |    |    |
| raccoon        | x |   |    |    | sandbar       | x | x |    |    |
| race           | x |   |    |    | sandstone     | x |   |    |    |
| racial         |   | x |    |    | sapphire      | x |   | x  |    |
| radar          | x |   | x  |    | savage        | x | x |    | x  |
| radium         | x |   | x  |    | savanna       | x |   |    |    |
| raft           | x |   | x  |    | scholar       | x |   |    |    |
| railway        | x |   |    |    | schooner      | x |   | x  |    |
| ranch          | x |   |    |    | sculptor      | x |   |    |    |
| range          | x | x |    |    | seafarer      | x |   |    |    |
| rapids         | x | x | x  | x  | seaport       | x | x |    |    |
| ravine         | x |   |    |    | seashore      | x | x |    |    |
| raw materials  |   | x |    |    | seasonal      | x |   |    |    |
| rayon          | x |   | x  |    | secede        | x |   |    |    |
| realm          | x |   |    |    | seconds       | x |   | x  |    |
| reaper         | x |   |    |    | secretary of  |   |   |    |    |
|                |   |   |    |    | navy          | x |   | x  |    |

| Word                   | E | W | E' | W' |                   | E | W | E' | W' |
|------------------------|---|---|----|----|-------------------|---|---|----|----|
| secretary of<br>state  |   | x |    | x  | sulphur           | x |   |    |    |
| secretary of<br>war    | x |   | x  |    | sultan            | x |   |    |    |
| self-govern-<br>ment   |   | x |    | x  | sultry            | x |   |    |    |
| senate                 | x | x |    |    | summit            | x |   |    |    |
| senator                | x | x | x  |    | sun dial          | x |   |    |    |
| serf                   | x |   |    |    | supreme<br>court  | x |   | x  |    |
| settle                 |   | x |    |    | serf              | x |   | x  |    |
| settlement             |   | x |    |    | surgeon           | x |   |    |    |
| settler                | x | x |    |    | surrender         | x | x | x  |    |
| sharecropper           | x |   |    |    | surveyor          | x |   | x  |    |
| shipment               | x |   |    |    | swamp             | x | x |    |    |
| shipper                | x |   | x  |    | swine             | x |   |    |    |
| shire                  | x |   |    |    | tangerine         | x |   |    |    |
| shore                  | x |   | x  |    | tanker            | x |   |    |    |
| shower                 | x | x |    |    | tannery           | x |   |    |    |
| silage                 | x |   |    |    | tamin             | x |   |    |    |
| silt                   | x |   |    |    | tar               | x |   |    |    |
| silversmith            | x |   | x  |    | tariff            | x |   |    |    |
| sisal                  | x |   |    |    | taxation          | x |   | x  |    |
| slave                  | x | x |    |    | taxes             | x | x | x  |    |
| slavery                |   | x |    |    | telegraph         | x |   |    |    |
| sleet                  | x | x |    |    | telescope         | x | x |    |    |
| sleigh                 | x |   |    |    | television        | x |   |    |    |
| slope                  | x | x | x  |    | temperate         | x | x |    |    |
| sloping                |   | x |    | x  | temperature       | x | x | x  |    |
| smelter                | x |   |    |    | temple            | x | x | x  |    |
| sound                  | x |   |    |    | tenant            | x | x |    |    |
| source                 |   | x |    |    | term              |   | x |    | x  |
| southern<br>hemisphere |   | x |    | x  | term of<br>office | x |   | x  |    |
| sovereign              | x | x |    |    | terrace           | x | x |    | x  |
| spy                    | x |   |    |    | territory         | x | x | x  | x  |
| stagecoach             | x |   | x  |    | textiles          | x |   | x  |    |
| state                  | x | x |    | x  | thermometer       | x |   |    |    |
| statehood              | x |   |    |    | thresher          | x |   |    |    |
| statesman              | x |   | x  |    | throne            |   | x |    | x  |
| states' rights         |   | x |    |    | thunder           | x |   |    |    |
| steel                  | x |   |    |    | tide              | x | x | x  | x  |
| steppe                 | x |   |    |    | timber            | x |   | x  |    |
| stock                  | x |   |    |    | tin               | x |   |    |    |
| stockade               | x |   |    |    | tobacco           | x |   |    |    |
| storm                  | x |   |    |    | toll              | x | x |    |    |
| strait                 | x | x | x  | x  | tomorrow          | x | x | x  |    |
| stream                 | x | x | x  | x  | topsoil           | x |   | x  |    |
| submarine              | x |   |    |    | torrent           | x |   |    |    |
| suburb                 | x |   | x  |    | torrid            | x |   |    |    |
| subway                 | x |   |    |    | torrid            |   |   |    |    |
|                        |   |   |    |    | zone              | x | x |    |    |

| Word                   | E | W | E' | W' | E | W | E' | W' |
|------------------------|---|---|----|----|---|---|----|----|
| tourist                | x |   | x  |    |   |   |    |    |
| townsfolk              | x |   |    |    |   |   |    |    |
| town meeting           | x | x |    |    |   |   |    |    |
| township               | x |   |    |    |   |   |    |    |
| townsman               | x |   |    |    |   |   |    |    |
| tract                  | x | x |    | x  |   |   |    |    |
| trade                  |   | x |    |    |   |   |    |    |
| trade union            |   | x |    |    |   |   |    |    |
| trading post           | x |   |    |    |   |   |    |    |
| traitor                | x |   | x  |    |   |   |    |    |
| tram                   | x |   |    |    |   |   |    |    |
| transcontin-<br>ental  |   | x |    | x  |   |   |    |    |
| transit                | x |   |    |    |   |   |    |    |
| transoceanic           | x |   |    |    |   |   |    |    |
| transport              | x | x | x  |    |   |   |    |    |
| transporta-<br>tion    | x | x | x  | x  |   |   |    |    |
| trapper                | x |   | x  |    |   |   |    |    |
| traveler               | x |   |    |    |   |   |    |    |
| trawler                | x |   |    |    |   |   |    |    |
| treasury               |   | x |    |    |   |   |    |    |
| treaty                 | x | x |    | x  |   |   |    |    |
| treaty of<br>peace     | x |   | x  |    |   |   |    |    |
| trial                  | x |   | x  |    |   |   |    |    |
| trial by<br>jury       |   | x |    |    |   |   |    |    |
| tribes                 | x | x | x  |    |   |   |    |    |
| tribesman              |   | x |    |    |   |   |    |    |
| tribune                | x |   |    |    |   |   |    |    |
| tributary              | x | x | x  | x  |   |   |    |    |
| trolley car            | x |   | x  |    |   |   |    |    |
| troops                 | x | x | x  |    |   |   |    |    |
| tropical               |   | x |    |    |   |   |    |    |
| tropic of<br>cancer    | x | x | x  |    |   |   |    |    |
| tropic of<br>capricorn | x |   |    |    |   |   |    |    |
| tropics                | x | x |    |    |   |   |    |    |
| truce                  | x | x |    |    |   |   |    |    |
| truck                  | x |   | x  |    |   |   |    |    |
| tug                    | x |   |    |    |   |   |    |    |
| tundra                 | x |   |    |    |   |   |    |    |
| tungsten               | x |   |    |    |   |   |    |    |
| twilight               | x |   |    |    |   |   |    |    |
| typhoon                | x |   |    |    |   |   |    |    |
| unite                  |   | x |    | x  |   |   |    |    |
| unexpected             | x | x |    |    |   |   |    |    |
| union(nation)          |   |   |    |    |   | x |    |    |
| union                  |   |   |    |    | x | x |    |    |
| United Nations         |   |   |    |    |   | x |    |    |
| unity                  |   |   |    |    |   | x |    | x  |
| universal              |   |   |    |    | x |   |    |    |
| upstream               |   |   |    |    | x | x | x  |    |
| up-to-date             |   |   |    |    |   | x |    | x  |
| uranium                |   |   |    |    | x |   |    |    |
| vessel                 |   |   |    |    |   | x |    | x  |
| vanadium               |   |   |    |    | x |   |    |    |
| vegetation             |   |   |    |    | x | x |    | x  |
| veto                   |   |   |    |    | x | x |    | x  |
| vice-presi-<br>dent    |   |   |    |    | x |   | x  |    |
| viceroys               |   |   |    |    | x |   |    |    |
| village                |   |   |    |    | x | x | x  |    |
| villager               |   |   |    |    | x | x |    | x  |
| volcanic               |   |   |    |    |   | x |    | x  |
| volcano                |   |   |    |    | x | x |    | x  |
| vote                   |   |   |    |    |   | x |    | x  |
| voter                  |   |   |    |    |   | x |    |    |
| voyage                 |   |   |    |    | x | x |    |    |
| voyager                |   |   |    |    | x |   | x  |    |
| walrus                 |   |   |    |    | x |   | x  |    |
| warfare                |   |   |    |    |   | x |    |    |
| warehouse              |   |   |    |    | x |   |    |    |
| warlike                |   |   |    |    |   | x |    |    |
| warrior                |   |   |    |    | x | x | x  | x  |
| waterpower             |   |   |    |    |   | x |    | x  |
| weave                  |   |   |    |    | x |   |    |    |
| weaver                 |   |   |    |    | x | x |    |    |
| weekly                 |   |   |    |    | x |   |    |    |
| wharf                  |   |   |    |    | x |   | x  |    |
| wilderness             |   |   |    |    | x | x | x  |    |
| worker                 |   |   |    |    | x |   | x  |    |
| world power            |   |   |    |    | x | x |    |    |
| world-wide             |   |   |    |    | x | x |    |    |
| windswept              |   |   |    |    | x |   |    |    |
| yak                    |   |   |    |    | x |   |    |    |
| zinc                   |   |   |    |    | x |   |    |    |
| zone                   |   |   |    |    | x | x | x  |    |

APPENDIX B

NAME.....

GIRL BOY  
4 5 6

A SOCIAL STUDIES VOCABULARY TEST  
FORM I

William L. Earley, Jr.

If you are a girl, draw a circle around the word GIRL in the upper left corner of this page; if a boy, circle the word BOY. Then draw a circle around the number that tells the grade you are in now and write your name in the space provided.

This test has five parts. Each part has a box on the left side of the page with the names of five headings or topics which you study about in geography and history. On the right of the box there are thirty-five words. Most of these words belong to one of the headings in the box. Each word has five spaces under it which are numbered like the headings in the box; 1,2,3,4,5.

Look at each word, think what it means and choose the heading in the box to which you think it belongs. When you have decided which heading is best, look at its number. Then fill in the space under the word which is numbered the same as the heading you chose. Make your mark heavy and be sure to fill in all the space between the lines. If you decide that the word does not belong to any of the headings in the box, draw a line through the word. (not the spaces under it)

Here is a sample which you may do with your teacher:

- |                                    |           |           |           |           |
|------------------------------------|-----------|-----------|-----------|-----------|
| 1. WATER &<br>WATER BODIES         | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |
| 2. LENGTH OF<br>TIME               | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |
| 3. SIZE OR AREA<br>OF GOVT. REGION | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |
| 4. PEOPLE                          | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |
| 5. FARMS AND<br>FARMING            | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |

- |           |         |        |        |
|-----------|---------|--------|--------|
| city      | chicken | year   | garden |
| bridge    | state   | doctor | barn   |
| policeman | evening | canoe  | north  |
| sail      | hour    | enemy  | peas   |
| corn      | river   | wheat  | town   |

If you change an answer be sure to erase the mark very carefully.

Take as much time as you need to finish but do only those words you feel sure you know - do not guess. As soon as you finish one part of the test, go right on to the next.

Be sure you understand how to do the test before you start.

FORM I

- 1. PEOPLE
- 2. LAND TRAVEL
- 3. PRODUCTS OF NATURE
- 4. MANUFACTURED GOODS
- 5. LENGTH OF TIME

|                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |
|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|
| 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 |
| foreigner           |   |   |   |   | daily               |   |   |   |   | minerals            |   |   |   |   | supplies            |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| pony express        |   |   |   |   | geography           |   |   |   |   | traitor             |   |   |   |   | mica                |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| petroleum           |   |   |   |   | timber              |   |   |   |   | seconds             |   |   |   |   | patrician           |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| kerosene            |   |   |   |   | truck               |   |   |   |   | nylon               |   |   |   |   | linen               |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| midday              |   |   |   |   | barbarian           |   |   |   |   | midsummer           |   |   |   |   | foundry             |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| refugee             |   |   |   |   | midmorning          |   |   |   |   | covered wagon       |   |   |   |   | treasury            |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| century             |   |   |   |   | flax                |   |   |   |   | indigo              |   |   |   |   | islander            |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| nitrogen            |   |   |   |   | trolley car         |   |   |   |   | midafternoon        |   |   |   |   | tannin              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| transportation      |   |   |   |   | prehistoric         |   |   |   |   | reformer            |   |   |   |   |                     |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |                     |   |   |   |   |

- 1. PEOPLE IN GOVERNMENT
- 2. TRADE & TRADING
- 3. WATER & WATER BODIES
- 4. WEATHER
- 5. INVENTIONS

|                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |
|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|
| 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 |
| ice floe            |   |   |   |   | parliament          |   |   |   |   | senator             |   |   |   |   | marketing           |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| prime minister      |   |   |   |   | merchant            |   |   |   |   | local               |   |   |   |   | sundial             |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| supreme court       |   |   |   |   | navigable           |   |   |   |   | reservoir           |   |   |   |   | occupations         |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| exporter            |   |   |   |   | radar               |   |   |   |   | embassy             |   |   |   |   | trading             |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| gale                |   |   |   |   | secretary of navy   |   |   |   |   | dike                |   |   |   |   | mist                |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| secretary of war    |   |   |   |   | bay                 |   |   |   |   | stream              |   |   |   |   | import              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| geyser              |   |   |   |   | mayor               |   |   |   |   | statesman           |   |   |   |   | television          |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| moisture            |   |   |   |   | ambassador          |   |   |   |   | rapids              |   |   |   |   | cotton gin          |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| flood               |   |   |   |   | blizzard            |   |   |   |   | typhoon             |   |   |   |   |                     |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |                     |   |   |   |   |

- 1. AIR TRAVEL
- 2. OCCUPATIONS
- 3. ANIMALS
- 4. CHURCH & RELIGION
- 5. GROUPS OF PEOPLE

|                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |                     |   |   |   |   |
|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|---------------------|---|---|---|---|
| 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 |
| goldsmith           |   |   |   |   | population          |   |   |   |   | builder             |   |   |   |   | mankind             |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| preacher            |   |   |   |   | weaver              |   |   |   |   | temple              |   |   |   |   | beaver              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| walrus              |   |   |   |   | lawyer              |   |   |   |   | hogs                |   |   |   |   | migration           |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| tribe               |   |   |   |   | pastor              |   |   |   |   | coppersmith         |   |   |   |   | airway              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| herder              |   |   |   |   | moose               |   |   |   |   | librarian           |   |   |   |   | museum              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| cobbler             |   |   |   |   | lumberjack          |   |   |   |   | artist              |   |   |   |   | alpaca              |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| aviator             |   |   |   |   | friar               |   |   |   |   | navigator           |   |   |   |   | monastery           |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| archbishop          |   |   |   |   | shipper             |   |   |   |   | prospector          |   |   |   |   | raccoon             |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |
| mink                |   |   |   |   | carver              |   |   |   |   | glider              |   |   |   |   |                     |   |   |   |   |
| ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   | ( ) ( ) ( ) ( ) ( ) |   |   |   |   |                     |   |   |   |   |



NAME.....

GIRL BOY  
4 5 6

A SOCIAL STUDIES VOCABULARY TEST  
FROM II

William L. Earley, Jr.

If you are a girl, draw a circle around the word GIRL in the upper left corner of this page; if a boy, circle the word BOY. Then draw a circle around the number that tells the grade you are in now and write your name in the space provided.

This test has five parts. Each part has a box on the left side of the page with the names of five headings or topics which you study about in geography and history. On the right of the box there are thirty-five words. Most of these words belong to one of the headings in the box. Each word has five spaces under it which are numbered like the headings in the box; 1,2,3,4,5.

Look at each word, think what it means and choose the heading in the box to which you think it belongs. When you have decided which heading is best, look at its number. Then fill the space under the word which is numbered the same as the heading you chose. Make your mark heavy and be sure to fill in all the space between the lines. If you decide that the word does not belong to any of the headings in the box, draw a line through the word. (not the spaces under it)

Here is a sample which you may do with your teacher:

- 1. WATER & WATER BODIES
- 2. LENGTH OF TIME
- 3. SIZE OR AREA OF GOVT. REGION
- 4. PEOPLE
- 5. FARMS AND FARMING

|     |     |           |     |     |     |         |     |     |     |     |        |     |     |     |     |        |     |     |     |
|-----|-----|-----------|-----|-----|-----|---------|-----|-----|-----|-----|--------|-----|-----|-----|-----|--------|-----|-----|-----|
| 1   | 2   | 3         | 4   | 5   | 1   | 2       | 3   | 4   | 5   | 1   | 2      | 3   | 4   | 5   | 1   | 2      | 3   | 4   | 5   |
|     |     | city      |     |     |     | chicken |     |     |     |     | year   |     |     |     |     | garden |     |     |     |
| ( ) | ( ) | ( )       | ( ) | ( ) | ( ) | ( )     | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) |
|     |     | bridge    |     |     |     | state   |     |     |     |     | doctor |     |     |     |     | barn   |     |     |     |
| ( ) | ( ) | ( )       | ( ) | ( ) | ( ) | ( )     | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) |
|     |     | policeman |     |     |     | evening |     |     |     |     | canoe  |     |     |     |     | north  |     |     |     |
| ( ) | ( ) | ( )       | ( ) | ( ) | ( ) | ( )     | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) |
|     |     | sail      |     |     |     | hour    |     |     |     |     | enemy  |     |     |     |     | peas   |     |     |     |
| ( ) | ( ) | ( )       | ( ) | ( ) | ( ) | ( )     | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) |
|     |     | corn      |     |     |     | river   |     |     |     |     | wheat  |     |     |     |     | town   |     |     |     |
| ( ) | ( ) | ( )       | ( ) | ( ) | ( ) | ( )     | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) | ( ) | ( )    | ( ) | ( ) | ( ) |

If you change an answer be sure to erase the mark very carefully.

Take as much time as you need to finish but do only those words you feel sure you know - do not guess. As soon as you finish one part of the test, go right on to the next.

Be sure you understand how to do the test before you start.

## FORM II

|                                 |                     |                             |                     |                     |
|---------------------------------|---------------------|-----------------------------|---------------------|---------------------|
| 1. PEOPLE                       | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 2. SIZE & MEASURES OF LAND      | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 3. ANIMALS                      | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 4. WATER TRAVEL                 | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 5. RULES & LAWS IN GOVT.        | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
|                                 | worker              | agreement                   | boundary            | antelope            |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | parallels           | prince                      | llamas              | trans-oceanic       |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | otter               | caribou                     | distance            | journal             |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | ancestor            | declaration of independence | voyager             | clipper             |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | constitution        | tourist                     | hemisphere          | elk                 |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | kayak               | crusader                    | livestock           | survey              |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | longitude           | degree                      | bill                | voyage              |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | inventor            | forest                      | frontiersman        | discover            |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | zone                | tropic of cancer            | global              |                     |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) |                     |
| 1. SOIL & ROCKS                 | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 2. WAR & WARFARE                | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 3. PLACES PEOPLE LIVE           | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 4. WEATHER                      | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 5. FRUIT                        | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
|                                 | militia             | fortification               | graphite            | resort              |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | fleet               | suburb                      | militaristic        | coral               |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | phosphate           | temperature                 | fog                 | blackberry          |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | apricot             | troops                      | isolation           | limestone           |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | drought             | blockhouse                  | sleet               | erosion             |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | rebellion           | quarry                      | armistice           | persecute           |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | invader             | cherries                    | warrior             | mango               |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | canteloupe          | revolutionist               | fertile             | plantation          |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | granite             | topsoil                     | sandstone           |                     |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) |                     |
| 1. SIZE OR AREA OF GOVT. REGION | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 2. CHURCH & RELIGION            | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 3. METALS                       | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 4. WATER & WATER BODIES         | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
| 5. KIND & SHAPE OF LAND         | 1 2 3 4 5           | 1 2 3 4 5                   | 1 2 3 4 5           | 1 2 3 4 5           |
|                                 | levee               | gorge                       | gulch               | monk                |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | isthmus             | welfare                     | chromite            | unity               |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | tributary           | canal                       | tide                | copper              |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | strait              | magnesium                   | empire              | township            |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | mesa                | dunes                       | cliff               | pagan               |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | shore               | cove                        | ministry            | sandbank            |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | territory           | surf                        | inlet               | medical             |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | lagoon              | nation                      | peak                | missionary          |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( ) |
|                                 | desert              | wharf                       | dominion            |                     |
|                                 | ( ) ( ) ( ) ( ) ( ) | ( ) ( ) ( ) ( ) ( )         | ( ) ( ) ( ) ( ) ( ) |                     |

FORM II

- 1. SCIENCE & SCIENTISTS
- 2. FARMS & FARMING
- 3. PEOPLE IN GOVT.
- 4. PRECIOUS STONES
- 5. LAND & LAND AREAS

1 2 3 4 5  
 civil service  
 ( ) ( ) ( ) ( ) ( )  
 judge  
 ( ) ( ) ( ) ( ) ( )  
 poultry  
 ( ) ( ) ( ) ( ) ( )  
 vice president  
 ( ) ( ) ( ) ( ) ( )  
 councillor  
 ( ) ( ) ( ) ( ) ( )  
 barley  
 ( ) ( ) ( ) ( ) ( )  
 council  
 ( ) ( ) ( ) ( ) ( )  
 opal  
 ( ) ( ) ( ) ( ) ( )  
 crops  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 convention  
 ( ) ( ) ( ) ( ) ( )  
 emerald  
 ( ) ( ) ( ) ( ) ( )  
 skyline  
 ( ) ( ) ( ) ( ) ( )  
 congressman  
 ( ) ( ) ( ) ( ) ( )  
 mainland  
 ( ) ( ) ( ) ( ) ( )  
 emperor  
 ( ) ( ) ( ) ( ) ( )  
 fodder  
 ( ) ( ) ( ) ( ) ( )  
 delegate  
 ( ) ( ) ( ) ( ) ( )  
 juror  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 buckwheat  
 ( ) ( ) ( ) ( ) ( )  
 physician  
 ( ) ( ) ( ) ( ) ( )  
 legislature  
 ( ) ( ) ( ) ( ) ( )  
 antarctic  
 ( ) ( ) ( ) ( ) ( )  
 diplomat  
 ( ) ( ) ( ) ( ) ( )  
 governor  
 ( ) ( ) ( ) ( ) ( )  
 alfalfa  
 ( ) ( ) ( ) ( ) ( )  
 jury  
 ( ) ( ) ( ) ( ) ( )  
 backwoods  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 jade  
 ( ) ( ) ( ) ( ) ( )  
 horizon  
 ( ) ( ) ( ) ( ) ( )  
 orchard  
 ( ) ( ) ( ) ( ) ( )  
 piedmont  
 ( ) ( ) ( ) ( ) ( )  
 tobacco  
 ( ) ( ) ( ) ( ) ( )  
 wilderness  
 ( ) ( ) ( ) ( ) ( )  
 primitive  
 ( ) ( ) ( ) ( ) ( )  
 jungle  
 ( ) ( ) ( ) ( ) ( )

- 1. OCCUPATIONS
- 2. GOVERNMENT
- 3. MANUFACTURED GOODS
- 4. DIRECTIONS OF PLACES
- 5. LAND TRAVEL

1 2 3 4 5  
 forester  
 ( ) ( ) ( ) ( ) ( )  
 historian  
 ( ) ( ) ( ) ( ) ( )  
 democracy  
 ( ) ( ) ( ) ( ) ( )  
 attorney  
 ( ) ( ) ( ) ( ) ( )  
 locomotive  
 ( ) ( ) ( ) ( ) ( )  
 postmaster  
 ( ) ( ) ( ) ( ) ( )  
 textiles  
 ( ) ( ) ( ) ( ) ( )  
 international  
 ( ) ( ) ( ) ( ) ( )  
 silversmith  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 architect  
 ( ) ( ) ( ) ( ) ( )  
 rayon  
 ( ) ( ) ( ) ( ) ( )  
 surveyor  
 ( ) ( ) ( ) ( ) ( )  
 ricksha  
 ( ) ( ) ( ) ( ) ( )  
 musician  
 ( ) ( ) ( ) ( ) ( )  
 election  
 ( ) ( ) ( ) ( ) ( )  
 refinery  
 ( ) ( ) ( ) ( ) ( )  
 banker  
 ( ) ( ) ( ) ( ) ( )  
 cobbler  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 trial  
 ( ) ( ) ( ) ( ) ( )  
 downriver  
 ( ) ( ) ( ) ( ) ( )  
 grocer  
 ( ) ( ) ( ) ( ) ( )  
 stagecoach  
 ( ) ( ) ( ) ( ) ( )  
 elect  
 ( ) ( ) ( ) ( ) ( )  
 trapper  
 ( ) ( ) ( ) ( ) ( )  
 moss  
 ( ) ( ) ( ) ( ) ( )  
 peddler  
 ( ) ( ) ( ) ( ) ( )  
 patent  
 ( ) ( ) ( ) ( ) ( )

1 2 3 4 5  
 tannery  
 ( ) ( ) ( ) ( ) ( )  
 landward  
 ( ) ( ) ( ) ( ) ( )  
 potash  
 ( ) ( ) ( ) ( ) ( )  
 sanitation  
 ( ) ( ) ( ) ( ) ( )  
 railway  
 ( ) ( ) ( ) ( ) ( )  
 oath  
 ( ) ( ) ( ) ( ) ( )  
 subway  
 ( ) ( ) ( ) ( ) ( )  
 tradition  
 ( ) ( ) ( ) ( ) ( )

A SOCIAL STUDIES VOCABULARY TEST

BOY GIRL  
GRADE 4 5 6

William A. Wolffer

Name.....

Look at the top of the test booklet that has been passed out to you and circle the letter that is like the one on your booklet:

FORM I

FORM II

In the upper right hand corner, circle BOY or GIRL, whichever you are, and then circle the number that tells the grade you are in. In the upper left hand corner use the space given on which to write your name.

The test booklet that has been passed out to you has many sentences on it. Each sentence has a special word in capital letters like this: SCHOOL. After each sentence you will find the special word printed and then you will see five answers: 1,2,3,4, and 5. One of these answers tells what the special word means.

Follow the steps given here and you will know how to do the sentences correctly.

1. Notice the number in front of the sentence and read it carefully.
2. Look at the special word in capital letters.
3. Read the five answers after the sentence.
4. Choose the answer that you think tells what the special word means.
5. Find the number on the answer sheet that is the same as the number in front of your sentence.
6. Mark your answer on the answer sheet by filling in the space that has the SAME NUMBER as the answer that you choose.

When you mark your answer, be sure to fill in all of the space between the lines. MAKE YOUR MARK HEAVY. If you erase any mark, be sure to erase all of it before you make another mark. Here are some samples for you to do with your teacher. The first one is done to show you how to place the mark.

A. People try to find a safe place during a THUNDERSTORM.

THUNDERSTORM means:    1) fireworks                    2) a heavy rainfall  
 3) air warfare                    4) rain with sleet and high winds    1 2 3 4 5  
 5) rain with lightning and loud sounds.                    ( ) ( ) ( ) ( ) ( )

The correct answer is number "5", so we fill in the space under number "5". WE MAKE OUR MARK HEAVY.

Now do the others by yourself. Your teacher will check your work. REMEMBER TO MAKE YOUR MARK HEAVY.

B. Many cities and towns have some PUBLIC LAND.

PUBLIC LAND MEANS:    1) land owned by everyone                    2) wasteland  
 3) land open to everyone                    4) private land                    1 2 3 4 5  
 5) land that no one can use                    ( ) ( ) ( ) ( ) ( )

C. A shipper must be able to plan a TRANSPORTATION ROUTE.

TRANSPORTATION ROUTE refers to:    1) sailing                    2) a map    1 2 3 4 5  
 3) aviation                    4) freight highway                    5) trailer truck    ( ) ( ) ( ) ( ) ( )

Remember to read carefully and place your answer in the correct space on the answer sheet. Do only the words that you feel sure you know. Turn over this sheet and start the test. You will have as much time as you need.



## A SOCIAL STUDIES VOCABULARY TEST

## FORM I

William A. Wolffer

1. Nature provides many forms of MOISTURE.  
MOISTURE means: 1) soils 2) plants 3) land 4) animals 5) water
2. Hunting for seals in Alaska is LEGAL at one time of the year.  
LEGAL means: 1) dangerous 2) not allowed 3) most successful  
4) most difficult 5) the law allows it
3. Farmers are anxious to turn MARSHLAND into good farms.  
MARSHLAND means: 1) soft land 2) valley 3) meadow 4) wet, soggy land  
5) lowland
4. We could see the low hills in the distance SLOPING toward the sea.  
SLOPING means: 1) smooth 2) terraced 3) slanting 4) rolling 5) far away
5. We find little VEGETATION on some high land areas.  
VEGETATION means: 1) warm weather 2) plant life 3) animal homes  
4) farming 5) rainfall
6. Much of our fertile land has been wasted by EROSION.  
EROSION means: 1) forest fires 2) cutting timber 3) flooding  
4) wearing away 5) grazing cattle
7. We have many comforts in our MODERN world.  
MODERN means: 1) peaceful 2) today 3) the whole world 4) machines  
5) nearby
8. New England has many places of HISTORIC interest.  
HISTORIC means: 1) beauty spots 2) national parks  
3) important in years past 4) very old churches 5) monuments
9. The Americans rebelled against the heavy TAXES imposed upon them.  
TAXES mean: 1) fees required by the government 2) trade 3) prison fines  
4) laws that are unfair 5) soldiers
10. The JURY listened carefully to the lawyer as he presented his case.  
JURY means: 1) a county judge 2) state policemen  
3) specially selected group deciding justice 4) newspaper reporters  
5) a criminal court
11. Wild animals INHABIT the deep forests.  
INHABIT means: 1) to invade 2) to always do things in the same way  
3) to raise their young 4) to live in 5) to hunt for food
12. Before instruments were made people had a difficult time finding DIRECTION.  
DIRECTION means: 1) giving orders 2) instructions 3) a sign 4) distance  
5) where to go
13. The king issued a PROCLAMATION, making the day a holiday.  
PROCLAMATION means: 1) a promise 2) a festival 3) a new law  
4) an official announcement 5) a speech

14. People living in America cherish their FREEDOM.  
FREEDOM means: 1) religion 2) liberty 3) money 4) power 5) jobs
15. The large VESSEL made little progress during the great storm.  
VESSEL means: 1) ship 2) heavy sea 3) wreckage 4) waves 5) plane
16. Farmers DRAIN large areas of land to make them useful for gardening.  
DRAIN means: 1) to plow 2) to plant seed 3) fertilize the land  
4) clear away trees 5) dry the land
17. The eastern part of our country is BOUNDED by the Atlantic Ocean.  
BOUNDED means: 1) inhabited 2) bordered 3) served 4) blocked 5) opened
18. Good schools are very important to the INHABITANTS of a town.  
INHABITANTS mean: 1) teachers 2) bookstores 3) people who study  
4) people who live there 5) public buildings
19. There are several OCEAN ROUTES between the continents of North America and Europe.  
OCEAN ROUTES mean: 1) water highways 2) passenger ships 3) islands  
4) great seas 5) explorations
20. Napoleon was an EMPEROR who conquered many countries.  
EMPEROR means: 1) a rich person 2) a man who lives in a castle 3) a warrior  
4) a commander 5) a ruler
21. It is not easy to imagine the world of TOMORROW.  
TOMORROW means: 1) long ago 2) past centuries 3) when you were small  
4) a few days ago 5) years to come
22. In some RURAL areas people have to travel far to reach a store.  
RURAL means: 1) in the country 2) a measuring stick 3) cold land  
4) far away 5) head of a country
23. New England is known for its INDUSTRY.  
INDUSTRY means: 1) public buildings 2) beautiful scenery 3) farming  
4) manufacturing 5) colonial houses
24. In some sections of our country farmers need to IRRIGATE their land.  
IRRIGATE means: 1) cultivate 2) plant early 3) provide water  
4) plow 5) build a dam
25. Many PRODUCTS of New England factories are sent abroad.  
PRODUCTS mean: 1) raw materials 2) things grown or made 3) transportation  
4) workers in a mill 5) animals
26. All of North America is in the NORTHERN HEMISPHERE.  
NORTHERN HEMISPHERE means: 1) far northland 2) lands with short summers  
3) world north of the equator. 4) winter weather 5) northern continent
27. Indians of today who live on reservations are not SAVAGE.  
SAVAGE means: 1) civilized 2) wild 3) monsters 4) brave 5) warriors
28. The French MISSIONARY went to the northwestern part of our country where he taught the Indians.  
MISSIONARY means: 1) an explorer 2) a trader 3) a fur trapper  
4) a traveler 5) a religious teacher

29. Long ago most of the land in England was controlled by OVERLORDS.  
OVERLORDS means: 1) strong soldiers 2) poor peasants 3) rich kings  
4) brave knights 5) powerful nobles
30. When a MARSH is drained it can be used for grazing cattle.  
MARSH means: 1) parade 2) food for cows 3) hillside 4) wet, soggy land  
5) hunting ground
31. The jet plane is a modern INVENTION of great importance.  
INVENTION means: 1) flying 2) manufacturing 3) warfare 4) trade  
5) discovery
32. A PEASANT often lived in a home owned by someone else.  
PEASANT means: 1) gardener 2) landlord 3) noble 4) laborer 5) hunter
33. The Spanish people FOUNDED a colony in Mexico many years ago.  
FOUNDED means: 1) explored 2) ruled 3) discovered 4) started 5) invented
34. The Yukon River is the largest natural highway of INTERIOR Alaska.  
INTERIOR means: 1) along the coast 2) roadway 3) riverbank 4) boulevard  
5) far from the coast
35. Most Americans are proud of the STATE in which they live.  
STATE means: 1) beautiful country 2) group of people under one government  
3) important country 4) where the Capitol is located 5) public parks
36. People enjoy many privileges under SELF-GOVERNMENT.  
SELF-GOVERNMENT means: 1) everyone rules himself 2) a president chooses  
officials 3) there are no rulers 4) people choose their lawmakers  
5) a king rules everyone
37. The people listened quietly to the PRIEST.  
PRIEST means: 1) king 2) traveler 3) politician 4) minister 5) teacher
38. Nearly a hundred years ago people in our country fought a CIVIL WAR.  
CIVIL WAR means: 1) war between two countries 2) war that is very short  
3) war between slaves and free men 4) war between government officials  
5) war between two groups in the same country
39. People in our states and towns GOVERN themselves.  
GOVERN means: 1) rule 2) vote 3) elect 4) obey laws 5) work on a job
40. Thousands of people visit the VOLCANO on the island of Sicily each year.  
VOLCANO means: 1) a settlement in Italy 2) a vacation resort near mountains  
3) a part of Yellowstone National Park 4) historic building in ancient Greece  
5) a mountain which sometimes sends out fire
41. Large lake boats bring ORE to Cleveland.  
ORE refers to: 1) manufactured goods 2) grain 3) rock with metal  
4) softwood like pine 5) freight
42. After struggling through hardships for many years, Americans decided that UNITY  
would give them strength.  
UNITY means: 1) a large army 2) several stockades 3) working together  
4) many laws 5) a strong blockhouse
43. The GEOGRAPHY of our country is different from that of some other countries.  
GEOGRAPNY means: 1) a large book with maps 2) study of the earth and people  
on it 3) news about weather on the radio 4) people in far way countries  
5) products that come in to or leave a country

44. Methods of trade and transportation are important to a MANUFACTURER.  
MANUFACTURER means: 1) traveler 2) travel agency 3) a merchant  
4) an automobile mechanic 5) a maker of goods
45. Early Americans who traveled by canoe had to go through many RAPIDS.  
RAPIDS mean: 1) swift, rough water 2) very narrow rivers 3) canyons  
4) whirlpools 5) high waves
46. The United States tries to build good INTERNATIONAL trade relations.  
INTERNATIONAL means: 1) in some states in our country 2) large nations  
3) transcontinental 4) within our country 5) world-wide
47. Manufacturers depend on the NATURAL RESOURCES of our country for their products.  
NATURAL RESOURCES mean: 1) products taken from the earth 2) large grain farms  
3) great shipping centers 4) goods shipped into our country 5) many working people
48. Farmers work constantly to improve the FERTILITY of their land.  
FERTILITY means: 1) color of the soil 2) amount of crops raised  
3) size of a farm 4) water for the soil 5) richness of the soil
49. Many people perform POLITICAL services for their cities.  
POLITICAL refers to: 1) managing public affairs 2) a medical doctor  
3) a policeman 4) a fireman 5) free
50. Many of the islands in the Pacific Ocean are DEPENDENCIES of powerful countries.  
DEPENDENCIES means: 1) children who need care 2) lands ruled by another country  
3) chains of islands 4) small coral islands 5) friendly to larger nations
51. Many of our battles were fought on FOREIGN territory during the last war.  
FOREIGN means: 1) mountainous country 2) desert lands 3) fertile soil  
4) coral islands 5) another country
52. The CONTINENTAL soldiers returned to their homes after the Revolutionary War.  
CONTINENTAL refers to: 1) a country 2) the confederate army  
3) belonging to all the colonies 4) weary colonists  
5) defeated southern colonies
53. Men living at the FRONTIER often hunted in the forests for their food.  
FRONTIER means: 1) settlement nearest to land not explored 2) great plains  
3) in the pioneer days 4) Indian villages 5) land near the mountains
54. Men worked hard to FORTIFY their towns.  
FORTIFY means: 1) beautify 2) make larger 3) settle 4) make strong  
5) build
55. All the people of the KINGDOM came to visit at the castle during the holiday.  
KINGDOM means: 1) town 2) royal territory 3) nobles' estates 4) city  
5) continent
56. The United States Coast Guard reports the position of all ICEBERGS to ships at sea.  
ICEBERGS mean: 1) glaciers 2) drifting wreckage 3) snow storms  
4) stormy weather 5) masses of floating ice
57. The returning CONQUEROR received a hearty welcome from his people.  
CONQUEROR means: 1) discoverer 2) explorer 3) soldier  
4) conductor 5) winner

- 58.. The BARBAROUS tribes captured and plundered the town.  
BARBAROUS means: 1) soldiers 2) wanderers 3) enemies 4) savage  
5) military
59. Our forefathers made a DECLARATION OF INDEPENDENCE before we won our freedom.  
DECLARATION OF INDEPENDENCE means: 1) declare a holiday  
2) announce their freedom 3) declare war 4) a celebration 5) peace
60. A FOREIGNER must have a permit to travel.  
FOREIGNER means: 1) a citizen of another country 2) a sailor 3) a tourist  
4) a spy 5) a politician
61. The VILLAGERS welcomed the spring with festivals and dancing.  
VILLAGERS mean: 1) people living in a small community 2) tourists  
3) people who work in a circus 4) farmers 5) children at a party
62. When our President does not want to approve a law passed by Congress he can VETO it.  
VETO means: 1) forbid the law 2) punish Congress 3) leave the White House  
4) deny the Constitution 5) take away our freedom
63. The FEUDS of the Middle Ages caused great hardships for the people.  
FEUDS mean: 1) government taxes 2) hunting parties 3) diseases  
4) bitter quarrels 5) noblemen
64. Travelers would often MAP the area through which they traveled.  
MAP means: 1) find the way 2) make a roadway 3) trace 4) track  
5) chart the land
65. Scientists are trying to get WATERPOWER from the tides.  
WATERPOWER means: 1) swift river current 2) floods 3) electricity  
4) force of water used to run machines 5) a system for getting drinking water
66. The sheep-herders were caught in a snowstorm while going through the PASS.  
PASS means: 1) valley 2) foothills 3) opening in the mountains  
4) mountain range 5) broad plain
67. A paper maker would be interested in a TRACT of timber.  
TRACT means: 1) to follow something 2) a logging camp 3) a railroad line  
4) large piece of land 5) marks left by animals
68. Many young men will spend some time in MILITARY service.  
MILITARY means: 1) on foreign soil 2) at a college 3) in the armed forces  
4) away from home 5) at war
69. Many different cities MANUFACTURE the same kinds of goods.  
MANUFACTURE means: 1) sell 2) raise 3) export 4) make 5) trade
70. White people make up half the POPULATION of Alaska.  
POPULATION means: 1) army 2) natives 3) seal hunters 4) trappers  
5) people
71. Small villages may be found in the desert where an OASIS is located.  
OASIS means: 1) oriental city 2) trading center 3) forest land  
4) fertile place 5) sand dunes
72. Fishing is an important OCCUPATION in New England.  
OCCUPATION means: 1) a kind of sport 2) sailing 3) recreation  
4) a kind of work 5) trading

- 73. As we traveled through the CANAL we saw people working in the fields.  
CANAL means: 1) valley 2) seaport 3) low country 4) water highway  
5) a wide stream
- 74. The states in the CENTRAL part of our country raise more wheat than they can use.  
CENTRAL means: 1) largest states in the country 2) farming region  
3) center of a state 4) middle of our country 5) best for agriculture
- 75. Today businessmen can make TRANSCONTINENTAL flights very easily.  
TRANSCONTINENTAL means: 1) across the water 2) long trips 3) on the water  
4) from coast to coast 5) through the air
- 76. We have been an INDEPENDENT nation for nearly 200 years.  
INDEPENDENT means: 1) powerful 2) trustworthy 3) peaceful  
4) not ruled by another nation 5) important in the world
- 77. There is more land area in the five southern states that BORDER the Atlantic Coast than there is in the entire northeast.  
BORDER means: 1) state line 2) edge 3) area of the states  
4) patrol 5) beach
- 78. Often the FLOW of water is changed by large rocks.  
FLOW refers to: 1) high water 2) rapids in a river 3) bubbling spring  
4) direction of the water 5) swift currents
- 79. The CHANNEL in the harbor was marked for the safety of ships.  
CHANNEL means: 1) deep waterway 2) radio frequency 3) lighthouse  
4) an ocean 5) a huge rock
- 80. Large ships have to wait for the TIDE before they can enter some ports.  
TIDE means: 1) a soap 2) a place to anchor 3) a tugboat  
4) rise and fall of the ocean 5) a deep channel

## A SOCIAL STUDIES VOCABULARY TEST

## FORM II

William A. Wolffer

1. The Indians were NATIVES of North America.  
NATIVES mean: 1) land owners 2) people who live in huts 3) immigrants  
4) born in that place 5) big game hunters
2. Rich VOLCANIC ground may be found in several parts of the world.  
VOLCANIC means: 1) sandy soil 2) fertile ash 3) silt left by floods  
4) farm land 5) fertile soil
3. A young Indian could become a WARRIOR only after passing many difficult tests.  
WARRIOR means: 1) a hunter 2) leader of his people 3) a rider  
4) a brave fighter 5) an officer
4. Today we have many men PIONEERING in the field of aviation.  
PIONEERING means: 1) flying planes 2) going west 3) building airplanes  
4) leading the way 5) traveling
5. Crops do not grow well during a DROUTH.  
DROUTH means: 1) dryness 2) water 3) flood 4) desert 5) winter
6. During the springtime the OVERFLOW of a river may cause much damage to farmlands.  
OVERFLOW means: 1) a heavy rainfall 2) swift water 3) deep river channels  
4) melting ice and snow 5) water the river banks cannot hold
7. Air pressure is figured from the LEVEL OF THE SEA.  
LEVEL OF THE SEA means: 1) low tide 2) high tide 3) middle of the ocean  
4) a smooth ocean 5) at the ocean's surface
8. After the first World War many people hoped that a LEAGUE OF NATIONS would bring permanent peace.  
LEAGUE OF NATIONS means: 1) countries in agreement 2) head of nations  
3) military meetings 4) groups of men 5) conference
9. Each country on this CONTINENT has its own government.  
CONTINENT means: 1) across the country 2) large mass of land 3) island  
4) states in a country 5) people working and living together
10. Farmers have to spend money for FERTILIZER.  
FERTILIZER means: 1) food for plants 2) machines for farming 3) good crops  
4) spray or dust for insects 5) seeds from a store
11. The tourists went ASHORE to visit the old city.  
ASHORE means: 1) on the dock 2) on land 3) along the coast 4) touring  
5) window shopping
12. The DELTA of a river is usually rich and fertile.  
DELTA means: 1) land that is wet and soggy 2) the bottom of a river  
3) land along a river 4) land formed by soil carried down the river  
5) the bottom of a river

13. From our airplane we looked down at the CANYON.  
CANYON means: 1) a wide valley 2) deep, narrow passage between mountains  
3) large guns at a fort 4) caves on the side of a mountain  
5) rolling plain where cattle feed
14. Newspapers are printed DAILY in many towns and cities.  
DAILY means: 1) one day each week 2) in every town 3) frequently  
4) seldom 5) every day
15. Several of our Presidents served our country for more than one TERM.  
TERM means: 1) a military rank 2) Democratic party 3) Republican party  
4) a length of time 5) a trial
16. In some sections of the world, EARTHQUAKES cause much damage to property.  
EARTHQUAKES mean: 1) wearing away of the land 2) thunderstorm 3) floods  
4) great windstorms 5) shaking of the ground
17. When a big job needs to be done, we UNITE to make it easier.  
UNITE means: 1) join a club 2) work together 3) disagree 4) work hard  
5) hire more people
18. We live in an ERA of modern machinery and speed.  
ERA means: 1) place 2) event 3) country 4) age 5) world
19. The farming REGION of the central states is important to the whole country.  
REGION means: 1) country 2) climate 3) area 4) center of a state 5) lowland
20. Patrick Henry is spoken of in history as a great PATRIOT.  
PATRIOT means: 1) an army general 2) a man loyal to his country  
3) a President of our country 4) an outstanding pioneer worker 5) a volunteer
21. Our relations with other countries are handled by our SECRETARY OF STATE.  
SECRETARY OF STATE means: 1) one who writes letters 2) banker 3) a clerk  
4) one who takes notes at meetings 5) an advisor to the President
22. Our country depends on NATURE for much of its living.  
NATURE means: 1) many mill and factory workers 2) heavy machinery  
3) things not made by man 4) large manufacturing cities 5) foreign trade
23. The President sent a GOVERNMENT OFFICIAL to meet the foreign visitors.  
GOVERNMENT OFFICIAL means: 1) a man who lives in Washington 2) an army captain  
3) a member of the President's family 4) one who holds an important government  
job 5) one who works in an office
24. In areas of FERTILE soil, large crops of alfalfa, wheat, and corn are raised.  
FERTILE means: 1) sandy 2) rich 3) level 4) moist 5) cultivated
25. The Canadian people still respect their MOTHER COUNTRY.  
MOTHER COUNTRY means: 1) a leading country 2) an enemy nation  
3) nation where one's mother was born 4) nation from which colonists came  
5) the heart of a country
26. We could see a CHAIN OF ISLANDS as we looked across the water.  
CHAIN OF ISLANDS means: 1) many lagoons 2) long, narrow peninsulas  
3) coral reefs 4) a line of small lands 5) hilly mainland

27. People living in hill countries found they could TERRACE their land for farming.  
TERRACE means: 1) cultivate land 2) a place for sunning  
3) build a little porch 4) name of a small street 5) land made like steps
28. General Washington left his Virginia home to COMMAND the Revolutionary forces.  
COMMAND means: 1) win a war 2) a high military officer 3) obey orders  
4) take charge of 5) surrender
29. There were no GLOBAL airplane flights when grandpa was a little boy.  
GLOBAL means: 1) across the country 2) rapid 3) across the continent  
4) world-wide 5) across the ocean
30. The sailboat took shelter from the wind in an INLET.  
INLET means: 1) a river 2) a small bay 3) a cave in the rocks  
4) a dock 5) a harbor
31. The climate at the EQUATOR is very hot and wet.  
EQUATOR means: 1) a very hot place 2) line circling the middle of the earth  
running east and west 3) line running north and south around the middle of  
the earth 4) a tropical country 5) inside the earth
32. Each POLITICAL PARTY has its own candidates for office.  
POLITICAL PARTY means: 1) a club 2) group who wants certain people in  
government offices 3) high offices in our government 4) a party for  
politicians 5) people who run for office
33. Lewis and Clark went on a trip through TERRITORY that was new to white men.  
TERRITORY means: 1) mountainous country 2) unsettled parts of land  
3) a small part of a town 4) fortresses 5) public land
34. The FORTRESS was heavily guarded.  
FORTRESS means: 1) a prison 2) a small town 3) a strong savings bank  
4) a strong place for safety 5) a harbor
35. Reading newspapers and listening to radio news broadcasts help us to keep UP TO DATE.  
UP TO DATE refers to: 1) what is happening now 2) knowing history  
3) watching the calendar 4) reading a great deal 5) fashion
36. Most countries would like to settle their troubles in a PEACEFUL manner.  
PEACEFUL means: 1) friendly 2) happy 3) without help 4) political  
5) warfare
37. COASTAL tankers come to New York from the Gulf of Mexico.  
COASTAL means: 1) large and speedy 2) along the shore 3) oil boats  
4) deep sea 5) from other countries
38. The United States is in the western HEMISPHERE.  
HEMISPHERE means: 1) North America 2) continent 3) climate  
4) land, sky, and water 5) half of the world
39. Early kings kept large FORCES in several places to protect their lands.  
FORCES mean: 1) farmers 2) noblemen 3) friends 4) serfs 5) armies
40. The ship looked like a black speck on the HORIZON.  
HORIZON means: 1) against the sky in the distance 2) as the sun rises  
3) on the ocean 4) where sky seems to meet earth 5) between the waves

41. Citizens of a country depend upon their RULER for leadership.  
RULER means: 1) a measuring stick 2) a friend 3) a wealthy man  
4) a lawyer 5) one who governs
42. Captain John Smith made a TREATY with the Indians.  
TREATY means: 1) a party 2) an agreement 3) warfare  
4) victory 5) a festival
43. The INVASION required much planning and many men and supplies.  
INVASION means: 1) an expedition 2) a convoy 3) an attack  
4) an army 5) an organization
44. The CLIMATE of California is different from that of New England.  
CLIMATE means: 1) weather 2) sunshine 3) thermometer 4) heat  
5) summertime
45. Little animal life is found in the FRIGID ZONE.  
FRIGID ZONE means: 1) very hot region 2) very cold region 3) desert region  
4) near the equator 5) unknown land
46. The BORDERLAND of a country is often patrolled by men day and night.  
BORDERLAND means: 1) along the coast 2) land near the edge of a country  
3) land near a desert 4) a wide prairie 5) land not fit for farming
47. From where we stood we looked into the GORGE.  
GORGE means: 1) swift, winding stream 2) a mountain waterfall  
3) a thick forest 4) narrow passage between hills 5) a deep cave
48. The HISTORY of our country is very interesting.  
HISTORY means: 1) story of the past 2) famous people 3) colonial times  
4) a school project 5) a book
49. In the United States we are free to ELECT our own leaders.  
ELECT means: 1) to win 2) run for office 3) choose by voting  
4) pay 5) campaign
50. Americans can show their PATRIOTISM in many ways.  
PATRIOTISM means: 1) love for country 2) serving in the armed forces  
3) voting at election time 4) saluting the flag 5) singing the "Star  
Spangled Banner"
51. Large logs were piled up at the top of the EMBANKMENT.  
EMBANKMENT means: 1) steep side of a river 2) a high dam 3) a levee  
4) a runway 5) a wall of stone
52. Western PRODUCE now arrives in the East in a short time by plane.  
PRODUCE means: 1) passengers from California 2) things grown or made  
3) air mail 4) mineral wealth 5) tourists
53. A large POWER PLANT was built near the river.  
POWER PLANT means: 1) factory to build locomotives 2) waterwheel  
3) mill where different things are made 4) where electricity or steam is made  
5) large dam
54. The king gave up the THRONE to his brother.  
THRONE means: 1) a royal crown 2) a king's palace 3) power of a ruler  
4) a trading company 5) castles

55. Today we have a choice of several ways to TRANSPORT our manufactured goods.  
TRANSPORT means: 1) carry 2) trade 3) pack 4) raise 5) sell
56. Rain and sunshine are necessary to carry on AGRICULTURE successfully.  
AGRICULTURE means: 1) a kind of land 2) a person who studies 3) farming  
4) sportsmanship 5) weather
57. The RESERVOIR was located at the foot of a mountain.  
RESERVOIR means: 1) a place to store water 2) a place where sewers empty  
3) a place where Indians now live 4) a dam 5) a swampy island
58. Many new machines have been made during the last CENTURY.  
CENTURY means: 1) a long time ago 2) last year 3) when you were very small  
4) a time of war 5) one hundred years
59. The Latin American countries are in the SOUTHERN HEMISPHERE.  
SOUTHERN HEMISPHERE means: 1) south of the United States  
2) land south of the equator 3) land with very long winters  
4) half of South America 5) summer weather
60. Our factories depend upon good TRANSPORTATION to get their materials.  
TRANSPORTATION means: 1) forest areas 2) being carried 3) waterways  
4) airplane service 5) mining regions
61. Many times MERCHANTS cannot get the materials they need.  
MERCHANTS mean: 1) people who make things 2) builders of houses  
3) farmers 4) sellers of goods 5) poor people
62. We elect our senators to REPRESENT us in Congress.  
REPRESENT means: 1) go to meetings 2) act for us 3) vote  
4) make speeches 5) work on committees
63. Many people went to the west and built their homes on a GRANT OF LAND.  
GRANT OF LAND means: 1) land owned by the Indians 2) forest land  
3) land the settlers bought 4) land given by the government 5) the plains
64. Much of the religious life of people in India is centered around the MOSQUE.  
MOSQUE means: 1) a kind of moth 2) a damp place 3) top of a church  
4) green moss 5) a place of worship
65. The AQUEDUCT carried the water over mountains and through valleys to the city.  
AQUEDUCT means: 1) a tank truck 2) a dancer 3) an animal train  
4) an airplane 5) a pipeline
66. Today we fly a great deal of CARGO to countries overseas.  
CARGO means: 1) freight 2) cattle 3) airplanes 4) people 5) money
67. The Great Lakes are the most used INLAND waterways in the world.  
INLAND means: 1) surrounded by water 2) river basin 3) wasteland  
4) away from the sea 5) lowland
68. The PENINSULA was noted for its fine vineyards.  
PENINSULA means: 1) an island chain 2) a long, rocky shore  
3) mountain country 4) land nearly surrounded by water 5) low flat land

69. We learned about IRRIGATION of land from the early Egyptians.  
IRRIGATION means: 1) planting 2) cultivating land 3) watering land  
4) building canals 5) building dams
70. Sailboats depend upon sea BREEZES to make them move.  
BREEZES mean: 1) small engines 2) moving air 3) paddles 4) rudder  
5) water currents
71. The great river became filled with ice from its TRIBUTARY far to the north.  
TRIBUTARY means: 1) small stream flowing into a larger one 2) a glacier  
3) a reservoir for drinking water 4) a long narrow inlet 5) a large lake
72. A STRAIT separates Alaska and Russia.  
STRAIT means: 1) ice field 2) narrow waterway 3) short canal  
4) small piece of land 5) deep river
73. Many times the old sailing ships were caught in the CALMS.  
CALMS mean: 1) anchor chains 2) fishing nets 3) no wind 4) storms  
5) current
74. Every American should VOTE when he has the opportunity, if he wishes to be a good citizen.  
VOTE means: 1) run for political office 2) work for the town  
3) campaign for office 4) win an election 5) make his choice
75. The heavy wagons went through the GAP.  
GAP means: 1) tunnel 2) water 3) forest 4) opening 5) covered bridge
76. The STREAM tumbled swiftly over the rocks.  
STREAM means: 1) waterfall 2) highway 3) loose sand 4) lake  
5) flowing water
77. The British army was forced to SURRENDER to the Americans.  
SURRENDER means: 1) fight 2) retreat 3) spy 4) give up 5) battle
78. A COMMUNITY depends upon many people for its food and clothing.  
COMMUNITY means: 1) place where people meet 2) a fund of money  
3) a club 4) a church 5) a group of people living together
79. Our country's CONSTITUTION gives us our rights and freedom.  
CONSTITUTION means: 1) early national government 2) a foreign ship  
3) a system of laws 4) President of our country 5) a meeting
80. During his REIGN a king will have to solve many problems.  
REIGN means: 1) long life 2) royalty 3) travels 4) rule  
5) marriage